

ICSC 10  2025

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ICSC 10 2025: Sunday 18 May - Wednesday 21 May 2025



ABSTRACTS

Papers Workshops Posters
Roundtable Discussion Groups



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INTERNATIONAL
CLINICAL SKILLS
FOUNDATION

10th International Clinical Skills Conference

"Past, Present and Future"

Prato, Tuscany
18 - 21 May 2025

Abstracts

The International Clinical Skills Foundation (Inc) is an Australian Registered Charity with the mission to improve the clinical education of health professionals in low-middle income countries.

Founded in 2017, the Foundation was formed by a group of academics working in health professional education to help support and disseminate the work of the biennial International Clinical Skills Conference. The conference has been held in Prato, Italy since 2005 and attracts expertise from around the world to progress the science of learning and to improve the safety of patients in health settings.

Supporting our work

If you would like to help us provide grants, scholarships and fellowships to develop clinical educators and projects in low-middle income countries please visit our website:

www.InternationalClinicalSkillsFoundation.org



Mission Statement

The purposes of the foundation are to improve clinical skills teaching and learning internationally. Not just physical clinical skills but also communication and teamwork, and to enhance learning cultures within health systems.

We aim to develop clinical education expertise in lower and middle income countries to generate self-sufficient education centres that are well connected with existing networks in the rest of the world, helping health care educators in these countries to join the global conversation.

By creating sustainability within their own educational practices and medical facilities, programs will be developed that bring them up to date with current innovations, and facilitate advances in the context of their own health systems.

Areas of clinical skills development

- Preparing junior health professionals for the work context
- Communication in inter-professional teams
- Developing healthcare education curricula in low-middle income countries
- Assessment of Clinical skills teaching and learning
- Creating educational innovation in emerging health systems
- Evaluating new methods of training
- Priorities in clinical skills education in low resource countries
- Promoting and disseminating best clinical practice

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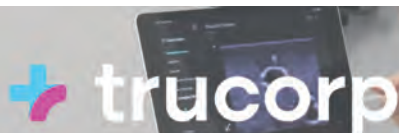
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Keynote Speaker Plenary

Professor Margaret Bearman

Clinical skills assessment and feedback as situated and contextual: a view of past, present, and future practices

Making judgements about learner performance underpins clinical skills education. While a considerable body of research concerns the detail of how assessors make and communicate these judgements to learners, taking a wider view suggests that such judgements do not take place in a vacuum. This keynote draws from practice theories to consider a variety of contexts for clinical assessment and explores how these contexts influence assessment and feedback practices.

Practice theories consider teaching and learning as complex, situated enactments, and from this perspective, it is valuable to study assessment and feedback as it is done, felt, and said, rather than as an idealised intended design. Over the last decade, I have qualitatively explored practices associated with older, psychometrically informed, clinical skills assessment formats such as Objective Structured Clinical Examinations (OSCEs) and later, more holistic, *in situ* assessment formats such as work-based assessment. Most recently, I have published about the future influence of artificial intelligence on assessment and clinical teaching.

I will bring these views of past, present, and future together to suggest how educators may wish to take account of context in their assessment and feedback practices.

Keynote Speaker Plenary

Professor Jeremy Howick

Empathy is a blockbuster drug; Why we need medical student empathy to increase

Evidence from systematic reviews of randomised trials demonstrate that empathic care improves patient outcomes ranging from reducing their pain and length of stay in hospital to improving their satisfaction with care; enhanced empathy also improves student and practitioner wellbeing. Given these benefits, we would expect medical and healthcare students to become empathy experts by the time they graduated. Unfortunately, medical student empathy often declines as they progress throughout medical school, and this decline often persists into their training.

After describing this evidence, much of which has been produced by Professor Howick, he will describe the Leicester Medical School Empathy curriculum in three steps.

He will:

1. Describe the approach to developing, delivering, and evaluating empathy interventions.
2. Address the pervasive problem that the hidden curriculum often mitigates against empathy.
3. Outline the five curriculum streams currently being delivered at the Leicester Medical School.

Explaining the hard science supporting the benefits of empathic care, and how the evidence can be used to design empathy teaching in plain English, the plenary will appeal to both a specialist/clinical and lay audience. The former will gain evidence-based insights they may wish to implement in their setting, while the latter will appreciate that the patient role is central in the development and delivery of empathy education.

Keynote Speaker Plenary

Professor Gabriel Reedy

Understanding and Teaching Healthcare Teamwork as a Clinical Skill: Past, Present, and Future

In the dynamic and high-stakes environment of healthcare, working effectively in teams is not just desirable—it is a key clinical skill. Historically, however, team working in healthcare has not been particularly well understood. Perhaps partly because of this, our approach to teaching teamwork in healthcare has pulled from other industries and has not been particularly nuanced to the complex realities of healthcare.

Simulated healthcare settings, now increasingly used for training interprofessional groups to work together, have helped us both understand how patient care teams work and help individuals develop the capacity to work better in teams.

Has traditional team science done us a disservice as we have tried to implement knowledge about teamwork in healthcare? What do we know about how healthcare teams differ from other kinds of teams? Do healthcare professionals need to learn different skills to help them with teaming?

Drawing on a decade of research seeking to understand the ways in which individual clinicians come together to accomplish patient care, this talk will explore team working as a clinical skill—one that can and should be taught across the health professions—and consider ways in which we can better prepare healthcare professionals for working in teams.

Keynote Speaker Plenary

Professor Renée E. Stalmeijer

Do you see what I see? Challenging intraprofessional workplace-based education norms

Health professions education and research (HPER) have an important mission: to better prepare future healthcare professionals for providing effective and safe healthcare. But what if HPER as a field is unintentionally doing the opposite?

The trajectory towards becoming a health professional is largely situated within the clinical workplace. There, like in the formal education setting, training is often mostly siloed: physicians train physicians, nurses train nurses, physiotherapists train physiotherapists.

During this keynote I will argue that if HPER is to better prepare their trainees for future practice, a change of perspective is needed regarding what we are training these trainees to become and who should be involved in this process.

By using the perspective of socio-cultural learning theory, I will invite the audience to consider the role of the entire, interprofessional healthcare team in preparing medical trainees to become competent and knowledgeable professionals

Keynote Speaker Workshop

Professor Margaret Bearman

Intellectual candour and feedback in clinical assessment

Feedback conversations are important for learning through assessment in clinical environments, but they often do not deliver on this potential.

Despite literature espousing active learner involvement in feedback, feedback can take the form of well-intended clinical supervisor monologues. This workshop describes the phenomenon of intellectual candour or “ . . . disclosure for the purpose of one’s own learning and the learning of others” (Molloy and Bearman 2018, p 1) and suggests that educators judiciously disclosing their own uncertainties may influence feedback conversations for the better.

Activities will explore how the healthcare assessment milieu influences learners’ reluctance to render themselves vulnerable.

Participants will experiment with how ‘the moves’ of the educator can promote or stifle learner engagement in feedback, with a particular focus on intellectual candour.

Keynote Speaker Workshop

Professor Jeremy Howick

Creating an empathic hidden curriculum in your institution

No matter how good empathy teaching is, it will have a limited effect if the hidden curriculum mitigates against empathy. The hidden curriculum exists within medical and other healthcare professional training, as well as in the professional setting. It includes an undue focus on the biomedical model of disease (and insufficient emphasis on the biopsychosocial model), unempathic role models, and poorly managed stress.

Drawing on the successful introduction of interventions that generate an empathic hidden curriculum at the University of Leicester Medical School,¹ this workshop will provide healthcare practitioners, educators, and leaders with a deep understanding of the hidden curriculum’s effect on empathy, and them with practical strategies to foster an empathy-generating hidden curriculum.

Participants will:

- Identify elements of the hidden curriculum in their setting that dampen medical student or healthcare professional empathy
- Explore interventions that would generate an empathic hidden curriculum
- Generate an actionable plan to start generating an empathic hidden curriculum in their setting

Designed for those passionate about driving change, this workshop will provide valuable insights and tools for transforming healthcare education into more empathetic and supportive environments for both staff and patients.

Recommended pre-reading for the workshop

1. Howick J, Slavin D, Carr S, et al. Towards an empathic hidden curriculum in medical school: A roadmap. *J Eval Clin Pract* 2024 doi: 10.1111/jep.13966 [published Online First: 20240208]

Keynote Speaker Workshop

Professor Gabriel Reedy

Shaping your Research for Publication: Honing your Message and Refining your Manuscript

The pressure to publish is ubiquitous in academia, and getting your work published in the academic literature can be a painful and dispiriting process.

It can feel like the old ground rules are changing and the standards keep increasing: what would have been easily published ten years ago is often rejected as no longer publishable.

One of the primary ways we train academics at doctoral level is to model new studies after what is already published in the scientific literature, which can be problematic. Further, many of us in health professions education may consider ourselves clinicians, educators, or scientists first, rather than writers, making the task feel even more daunting.

Building on the experience of an academic journal editor-in-chief, this workshop will help colleagues to bring together their own experiences, feedback, tips, and guiding principles for working through the challenging process of getting their work published in the academic literature.

Keynote Speaker Workshop

Professor Renée E. Stalmeijer

Do you see what we see? Using theory to foster interprofessional workplace learning

Health professions education and research (HPER) have an important mission: to better prepare future healthcare professionals for providing effective and safe healthcare. Interprofessional Collaboration (IPC) been identified as a vital cornerstone of effective healthcare practices, yet research shows that effective IPC is not self-evident. It requires preparation and training. As such, HPER efforts have become focused on: (a) how to better prepare healthcare trainees for IPC, and (b) how to guide them in their role on interprofessional healthcare teams. Interprofessional workplace learning (IPWL) has recently been explored as one avenue through which to prepare healthcare trainees for IPC.

Yet meaningful IPWL seems to be thwarted by role boundaries, teaching silos, and pressures of healthcare that make it difficult to foreground IPC learning opportunities. To address these barriers, we first need to better understand them. This workshop aims to equip attendees with a good understanding of relevant theoretical perspectives they can apply them to study and advance IPWL. After this workshop, attendees will be able to:

- Explain and apply theoretical lens to IPWL research, including Landscape of Practice (Wenger-Trayner & Wenger-Trayner), Boundary Crossing (Akkerman & Bakker), and Billett's interdependent theory of workplace learning to identify and address barriers to IPWL.
- Apply the concept of Theoretical Engagement to understand how theory use in HPER can heighten transferability of research across different workplace, national, and cultural contexts.

Who should participate?

Health professions educators and researchers with an interest in optimizing interprofessional workplace learning

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Oral 1

A scoping review of virtual and extended reality simulations for teaching and assessing situational awareness in health professions education

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Introduction

Effective and accessible experiential learning is an integral part of health education globally. Recent advances in Virtual and Extended Reality (VR/XR) technologies and its subsequent increased use in healthcare education has left educators wondering how these technologies have been implemented and evaluated, particularly when considering teaching and assessing behavioural skills including situational awareness and decision making. These skills were traditionally learned on clinical placements, which in the context of increasing learner numbers, are challenging to access. This review aims to evaluate the use of VR simulation for training of situational awareness and decision making for undergraduate healthcare learners.

Methods

A Scoping review was performed as per the Arksey and O'Malley framework, searching eight databases: MEDLINE, Embase, Scopus, Google Scholar, PubMed, CINAHL, ERIC, and PsychInfo. Studies evaluating the use of VR and its extended interfaces for training situational awareness and decision making in undergraduate healthcare education were included.

Results

3,932 studies were retrieved; 35 studies were included within the review. VR-based interventions were used across a range of disciplines including nursing, medical, paramedical, midwifery students. 17 studies described screen-based VR interventions and 16 studies used head-mounted devices (HMD). One study used both screen-based and HMD interventions and one further augmented reality. 29 studies assessed the role of the intervention in DM training, and six studies assessed its role in SA training. 18 studies used validated assessment tools and 17 studies described educational theories underpinning their learning techniques.

Conclusions

The present and future role of VR in training of SA and DM for healthcare professions has been recognized. There remains a lack of consensus on reporting items within VR studies and many studies lack description of educational theory when implementing VR technologies. We recommend that future work builds on this gap and reporting guidelines on educational VR studies are developed.

Poster 3

Piloting Progress-style OSCE in Medicine

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Progress testing is an examination approach where multiple cohorts of students share an exam that samples from the complete domain of knowledge on topics relevant to intern required knowledge.^{1,2} Students receive feedback on exam performance which informs their subsequent learning and promotes retention of knowledge.³ Resource intensity is reduced through the creation of exams based on a single blueprint. Progress style OSCEs have been trialled in a small number of studies which is argued to alleviate resource pressure while promoting retention of learning.⁴ Currently, Year 3 medical students conduct an 8-station OSCE at the completion of the pre-clinical/Phase 1 whilst Year 4/Phase 2 students conduct a final 10-station OSCE as evidence of their continuing safe practice for progression. There is overlap in assessable knowledge and skills, however, OSCE are conducted separately requiring duplication of workload. To obtain evaluation data to support a progress OSCE, three stations will be conducted by both Year 3 and Year 4 cohorts in their separate OSCE, with some examiners blind to student Year status. Comparative station performance data and focus group data will be shared, to determine if a 10-station progression OSCE is a viable method of identifying clinical skills competency for progression.

Oral 4

Medical students' perceptions of peer physical examination: what has changed over 20 years that can inform teaching and practice?

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University of Auckland, Auckland, Auckland, New Zealand

Background

Learning clinical skills through peer physical examination (PPE) has become an important part of health professional programme curricula. As part of a clinical skills curriculum design in the early 2000s, formal PPE policy was implemented (1). In 2004, this process for PPE in clinical skills learning was explored using a survey (2). Those findings guided ongoing policy and process and have been adapted by others. In 2008 a multicentred study explored attitudes to examination of body areas as part of PPE (3). Over the last 20 years student numbers have increased in most programmes, we have experienced a COVID pandemic, our cohort diversity has increased and there has been a deliberate move to more inclusivity. All of these could have an impact on PPE. The current study seeks to reflect on these historical findings through contemporary data about engagement and acceptability of PPE.

Methods

Data will be collected by anonymous, self-completed online survey, sent to Year 2&3 medical students (n~650). The survey will include quantitative and qualitative components, using the original 2004 questions (2), the Peer Physical Examination Questionnaire (4) and some open questions reflecting some of the changes in context. Quantitative data will be summarised and compared with historical data from our setting.

Results

Data is being collected in October 2024 and results will be available for an updated abstract early in 2025. In our 2004 evaluation (2) students accepted and supported the consent process, didn't feel coerced to be examined, and preferred to choose who they worked with for peer examination tasks.

Conclusions

We intend to compare the findings from the two time-points and draw practical outcomes for learning skills using peer physical examination. We hope to provide contemporary practical guidance.

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Oral 5

Clinical Decision Making of Undergraduate Nursing Students Management of Medication Administration: A Verbal Protocol

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Background

Nursing students find it challenging to acquire competency in medication administration, which may account for medication errors after students graduate (Treiber & Jones, 2018). The thought processes associated with cognitive and metacognitive strategies and decision-making of undergraduate nursing students as they complete a task of medication administration are unknown.

Aim This study aims to investigate undergraduate nursing students' decision-making in medication administration using verbal protocol analysis (VPA) within the DP-MC framework.

Design

This study will use a concurrent mixed methods design, a recorded audio video simulated scenario on medication administration using a think-aloud (TA) method, and a post-simulation interview. Following ethics approval, a convenient sample of 15 undergraduate second-year students will be recruited to participate in the study.

Data Analysis

The TA data will be entered into NVivo 12, and a verbal protocol will guide the analysis. According to the DC-MC Framework, data will be coded using the cognitive and metacognitive strategies and types of decision-making students use. The codes will be tallied, and the nominal data will be entered into the SPSS database for statistical analyses. The observation and interview data will be coded into categories and subcategories using direct content analysis.

Conclusion

The study's results will be presented and provide an understanding of nursing students' decision-making process, which is crucial in preparing them for medication administration in the clinical setting. The outcomes will inform pedagogy and the curriculum to develop students' problem-solving abilities.

The study was funded by the National League for Nursing through the Foundation for Nursing Education Research Award.

Oral 6

Final Year Nursing Students' Preparedness for Medication Administration during COVID-19: A Multi-site Survey Study

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Aim

To examine final-year undergraduate nursing students' characteristics and their perceived preparedness for medication administration across three universities during COVID-19. Background Nurses are at the frontline of medication administration; therefore, nursing students must be well-prepared to administer medicines safely before graduation. Little is known about final-year undergraduate nursing students' perceived medication administration preparedness during COVID-19.

Design

A multi-site study using a cross-sectional survey of student demographics, the 'Preparedness for Medication Administration' (Revised) tool and an open-ended question.

Methods

The questionnaire was distributed to nursing students in their final semester of the program in 2022 across two universities in Australia and one in New Zealand and completed surveys n=214. Differences in demographic data and preparedness scores between the three universities were analysed using ranked means, correlation coefficient, Chi-Square, Mann-Whitney U and Kruskal-Wallis H. Directed content analysis was used to analyse the data from the open-ended question. Results Students reported high preparedness scores for medication. International students reported significantly higher preparedness scores (Md =119, n=29) compared with domestic students (Md=112.00, n=164), U=1759.50, z=-2.231, p=0.02, r=.16. Mean ranked scores for each item were above average across the three universities. The impact of COVID-19 on curriculum and students' opportunity to practice may explain the difference in preparedness scores between universities. Older students were more confident in applying principles of pharmacology to practice. Students' comments generated three major categories and five subcategories indicating preparedness gaps.

Conclusion

This study provides insights into students' medication management preparedness during restrictions and before transitioning to the role of Registered Nurse. It highlights the need to provide integrated and comprehensive medication education and assessments throughout the curriculum and the need for additional support for newly graduated nurses in medication management due to the restrictions.

Workshop 7

Helping those with Autism and / or a Learning Disability make informed choices about their sexual health

Shy Teli

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Introduction

The NHS England Valproate Integrated Quality Improvement programme requires clinicians to ensure that those taking Sodium Valproate are aware of its teratogenic risks through the completion of an annual risk assessment form. However, data has highlighted that this is often not completed in those with Autism and / or LD. Feedback has suggested that this is due to clinicians feeling anxious about discussing sex with this population, as well as some clinicians believing that those with Autism and / or LD are asexual.

Method

Interviewed multiple service users, carers, researchers, and clinicians to find examples of these conversations happening well, and to ascertain why these conversations were going well.

Results

Co-produced two educational resources. One resource contains a variety of tips to help turn good communicators into good communicators about sex / sexual health / pregnancy prevention with those who have Autism and / or LD. The second resource is a list of questions to be given to the service user before their appointment to help them, and their carer, prepare for the appointment.

Conclusions

Clinicians that piloted the resources stated that they led to higher quality and more enjoyable conversations. The educational resources will now be disseminated nationwide by NHS England. Data will be reviewed in 12 months to see if this has led to an increase in Sodium Valproate Risk assessment forms being completed in those with Autism and / or LD.

Oral 9

Development of a Student Simulation Faculty - logistics and lessons from our first year

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Background

Simulation-based teaching is embedded throughout the undergraduate medical curriculum at the University of Aberdeen. However, increasing student numbers provide an additional challenge to sustainable delivery. Near-peer faculty has been used effectively in other educational settings but is relatively novel in undergraduate simulation-based education (SBE)^{1,2}. This presentation will therefore outline our approach to recruitment, training and quality assurance of our Student Simulation Faculty (SSF), as well evaluating the impact of this programme in its first year.

Methods

97 MBChB students from Years 3-5 volunteered to join the SSF in June 2024. During the first 3 months, 49 students completed nationally accredited e-learning modules as well as a full day of face-to-face training purposefully designed to develop skills to deliver SBE. An innovative electronic evaluation tool comprising role-specific checklist and global rating score was developed to assess competence and provide feedback to individual SSF members. This was piloted with iterative refinement based on feedback from existing Faculty.

Results

All students felt the training day met learning objectives and following this, 95% of students felt they would be able to "drive" the technical aspects of a simulation and 93% felt able to facilitate a learning conversation. Further data collection is underway to ascertain engagement, learning curves and ability of SSF to deliver aspects of SBE with or without direct supervision. A qualitative study will also generate insights into the benefits and challenges of the SSF with respect to learners, existing Faculty and peer-faculty themselves.

Conclusion

To date, feedback suggests that development of a Student Simulation Faculty is valued by both students and staff. Further work is ongoing to evaluate under what circumstances this can be effectively used to support delivery of high-quality SBE in an MBChB undergraduate curriculum.

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1. Viggers S, Ostergaard D and Dieckmann P. How to include medical students in your healthcare simulation centre workforce. *Adv Simul (London)*, 2020; 5(1):1-6.
2. Rees EL, Quinn PJ, Davies N, Fotheringham V. How does peer teaching compare to faculty teaching? A systematic review and meta-analysis. *Med Teach*, 2016;38(8): 829-37.

Oral 10

Action research to develop an aligned consultation skills curriculum - what's working

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Staffordshire, United Kingdom

Background

Malalignment between intended learning outcomes (competencies), classroom and clinical placement learning and formative and summative assessment is common in studies of consultation skills curricula (Dewi et al., 2024). What medical students observe and are taught on placement is frequently at odds with their skills lab instruction and they often perceive they should develop yet another consulting style for OSCEs. This is problematic as consultation skills are core to doctors, work and may not be acquired as intended if the curricular competencies, learning activities and assessments do not align.

Methods

From 2007 an action research team of hospital and GP clinicians and medical students developed and validated the Generic Consultation Skills (GeCoS) instrument with aligned strategies to assist improvement in consultation skills. These are the spine of the Keele undergraduate medical consultation skills teaching and assessment programme (Lefroy et al., 2011, 2014). Clinical placement tutors and OSCE examiners became familiar with GeCoS by participation in development research, our tutor training programme and by using it in formative workplace assessments giving feedback using a mini-CEX with GeCoS embedded. OSCE marking schemes in summative assessments from year 1 to 5 also use GeCoS.

Results

Student satisfaction with consultation skills teaching and with their feedback from tutors, graduate preparedness surveys, external examiners and Foundation Programme supervisor reports show that Keele students are highly satisfied with their clinical consultation teaching and become well-prepared PGY1 clinicians.

Conclusion

Keele aims to graduate excellent clinicians. GeCoS provides a robust spine for the Keele consultation skills curriculum from Year 1 to 5 supporting rigorous alignment of teaching and assessment of consultation skills. Students have consistent feedback on their consultation skills throughout their undergraduate course in all settings. We consider our focus on aligning outcomes, teaching and learning and assessment have made a major contribution to our graduate outcomes.

References:

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Workshop 11

Shared Decision Making: how do we teach students to share decisions with their patients?

Janet Lefroy, Joanne Protheroe, Rachael Grant, Ruth Kinston, Egbe Efefaroro, Magdy Abdalla, Nicola Roberts

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Introduction

Shared decision-making is appropriate whenever a decision is to be made where there is a realistic choice, for example whether to consent to a procedure (where understanding risks and benefits for each option is key); deciding whether to start and keep taking a medication (where the patient can try it and can stop if they don't like it); changing lifestyle and habits (where motivation to keep going will be key). Shared decision-making is not pushing the decision onto an unprepared patient - it is a form of patient-centred care in which the patient and the clinician actively collaborate to determine which treatment option is best for them. Several models of shared decision making have been described, and different types of decision are best suited to different models (1,2). The fact that there is a choice and that the clinician is wanting the patient to make it with their support (team talk) may need careful introduction. Option talk (sometimes using patient decision-support tools to understand risks and benefits) and exploring preferences should be done in a supportive way so that the decision made is the best decision for them. There are pitfalls in shared decision-making such as the patient feeling forced to make a choice without knowing what the options will mean or overwhelmed with information and unable to understand or choose; misunderstanding of risk or side effects causing them to choose not to have the treatment; the power dynamic meaning that it is the clinician who decides. Clinical educators can teach healthcare students to empower patients to understand and make decisions about their care (3). Whether you teach evidence-based medicine, the social determinants of health, consultation skills or supervise clinical placements, this workshop will help you to think how you could contribute to tomorrow's healthcare providers being better at sharing decisions with their patients.

Objectives

Participants will understand the rationale for shared decision making in various types of clinical decisions. Models of shared decision making will be outlined. Share tips about using decision support tools and adjusting for health literacy. Rehearse skills of shared decision making and how to give students feedback using forum theatre style of roleplay (no obligation to roleplay!)

Participants will consider how we might introduce shared decision making in our teaching to help students to think of it and do it better. Intended audience: Any interested teacher of healthcare students. Maximum number of participants 40.

Instructor's qualifications

This workshop has previously been successfully delivered by the presenters for colleagues at Keele Medical School's annual Medical Education conference.

References:

Elwyn G, Durand MA, Song J, et al. A three-talk model for shared decision making: Multistage consultation process. *BMJ* 2017;359:j4891. 2. Hargraves IG, Montori VM, Brito JP, et al. Purposeful SDM: A problem-based approach to caring for patients with shared decision making. *Patient Educ Couns* 2019; 102: 1786-1792. Zegarek M, Brienza R, Quinn N. Twelve Tips for teaching shared decision making. *Med Teach*. Epub ahead of print 2022. DOI: 10.1080/0142159X.2022.2093700.

Oral 12

Pain Management in Intensive Care Settings: Evidence on Enhancing Implementation and Practices

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Background

There is compelling evidence pain is undermanaged in intensive care units; a substantial gap between guidelines and clinical practices exists which culminates in prolonged length of hospital stay and adverse physiological and psychological outcomes. Implementation of pain management interventions is instrumental to counteract this problem.

Aim

The study used a theory-driven approach to delineate the contexts conducive to successful implementation of pain management interventions and the underlying mechanisms activated in given circumstances.

Methods

A realist evaluation approach was employed to uncover perspectives and refine twelve initial program theories concerning implementation of pain management interventions in intensive care units. Fourteen purposively selected Australian nurses of variant roles were individually and virtually interviewed. Participants were presented with initial program theory and their perspectives were collated. An integrated approach of Context(C), Mechanism(M), Outcome(O) categorisation coding, CMO configurations connecting and pattern matching was employed for analysis. RAMESES II Reporting Standards for Realist Evaluations informed presentation of study.

Findings

Pain management interventions will be adhered to if perceived to be beneficial, precise, comprehensive, and fit for purpose. Contexts conducive to successful implementation encompass nurses' willingness to overcome biases, update knowledge and engage in reflective practices. Unit leaders should nurture development of nurses' professional identity, support access to learning, autonomy and self-determination. Organisations should change infrastructure, provide resources, mitigate barriers, develop shared mental models, update evidence and institute quality assurance. These circumstances boost confidence to fulfil role requirements, provoke feelings of empowerment, self-efficacy, reflective motivation, trust, awareness, autonomy and build capacity. Furthermore, frustration from variability of

practices is reduced, accountability and ownership are augmented, yielding positive implementation outcomes.

Conclusions

Actions are required by individuals, unit leaders and organisations to ensure successful implementation of pain management interventions which enhances pain assessment practices, reduces patient suffering and subsequently improves clinical outcomes.

Oral 13

You Realise That You're Not Alone, Everyone Has a Story To Tell: The Impact of Challenging Consultations on Medical Students

Rachael Grant

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Background

Existing literature on how to approach challenging consultations has predominantly focused on breaking bad news, these extend to a broader scenarios¹. Limited research exists on how to best help prepare students for these wider challenges, with one study indicating that simulation was found to be a safe and effective setting for student to explore these².

Objectives

The aim of the study was to evaluate the impact of a new session using Simulated Patients to explore how to handle suspected child maltreatment and how to address racist beliefs in patients. The study sought to examine the impact of the session on students' skills and confidence and determine how this might impact students' abilities in future practice.

Methods

Fourth year Medical Students who attended the session between January and April 2024 were invited to participate in semi-structured interviews. The data was analysed using Braun and Clarke's method for thematic analysis.

Results

11 students were interviewed. Four main themes were identified: (1) the value of sharing experiences and supporting one another, (2) a recognition of the inevitability of challenging consultations and their emotional impact on clinicians, (3) the importance of good communication skills in challenging consultations and (4) increased preparedness for clinical practice. Students experienced challenging consultations early on in their clinical placements and frequently felt uncertain how to respond to inappropriate or unsolicited comments. Support from supervisors varied, but bystander support was welcomed.

Conclusion

Students valued the training and reported it had positively impacted on their preparedness for clinical practice. Following the session, students felt more confident in how to structure a consultation in the context of suspected child maltreatment. Additionally, students felt more confident in managing discussions where patients held unacceptable views.

References:

(1) Jackson JL, Kroenke K. Difficult Patient Encounters in the Ambulatory Clinic: Clinical Predictors and Outcomes. *Archives of internal medicine* (1960) 1999 May 24;159(10):1069-75. (2) Isaksson J, Krabbe J, Ramklint M. Medical students' Åö experiences of working with simulated patients in challenging communication training. *Advances in Simulation* 2022 Oct 10;7(1):1-Åö32.

Oral 14

Enhancing Clinical Competence through Synergistic Interprofessional Education Models: A Scoping Review

Amanda Wilson¹, Alison Hutton², Kichu Nair³, Conor Gilligan⁴, Sonia Matiuk¹

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The integration of interprofessional education (IPE) into health professions training is critical for developing clinical competence and improving patient outcomes. This presentation discusses a scoping review on identifying and synthesising synergistic models advancing IPE, with a specific focus on their impact on clinical skills and patient care. The scoping review involves a systematic search across multiple databases to identify key themes within existing educational models that promote collaborative clinical practice. These models integrate adaptive competencies - such as critical thinking, clinical reasoning, and flexibility - within interprofessional teams, fostering an environment that supports shared decision-making and holistic patient care. The review also explores the incorporation of AI-driven tools and post-pandemic learning strategies, highlighting their role in enhancing clinical training. The findings emphasise the importance of creating educational frameworks that not only teach clinical skills in isolation but also in the context of interprofessional collaboration. By focusing on real-world clinical scenarios, these models prepare health professionals to function effectively in diverse healthcare settings, ultimately improving patient outcomes. This presentation offers practical recommendations for educators and clinicians to integrate synergistic IPE models into curricula, aiming to enhance clinical competence. The proposed model includes blended learning approaches, AI-enhanced clinical simulations, and resilience training, ensuring that health professionals are well-equipped to meet the demands of contemporary clinical practice. The session will be particularly relevant for clinical educators, healthcare providers, and policymakers seeking to advance clinical skills education through interprofessional collaboration.

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Oral 15

AI-Driven Feedback in Clinical Skills Education: A Literature Review

Amanda Wilson, Natalie Govind

UTS, Sydney, NSW, Australia

The integration of artificial intelligence (AI) into clinical skills education is recognised as a game-changer, with new ways to enhance student feedback, engagement, and competency. This presentation shares emerging insights from a systematic literature review that examines the role of AI-driven feedback in clinical education. The review aims to consolidate existing research to explore how AI can provide personalised, timely feedback that significantly improves the learning outcomes and experiences of healthcare students. Preliminary findings indicate that AI-driven feedback mechanisms have the potential to outperform traditional feedback methods in terms of immediacy, personalisation, and relevance. Studies suggest that AI-generated feedback not only enhances student engagement but also accelerates skill acquisition by tailoring guidance to individual learning needs (Kocaballi et al., 2022; Buckingham Shum et al., 2019). However, the review also identifies key gaps in the literature, particularly regarding the long-term impact of AI tools on clinical education and the challenges of integrating these technologies into existing curricula. This presentation will provide a critical analysis of these findings, offering a theoretical framework that positions AI-driven feedback within the broader landscape of clinical education. By addressing both the opportunities and limitations identified in the literature, we outline a roadmap for future research and practical applications, including ethical considerations and strategies for effective implementation. Attendees will gain insight into how to use AI in clinical skills education, alongside practical recommendations for integrating AI-driven feedback into teaching practice.

References:

Kocaballi, A. B., Sezgin, E., Clark, L., et al. (2022). Design and Evaluation Challenges of Conversational Agents in Health Care and Well-being: Selective Review Study. *Journal of Medical Internet Research*, 24(11), e38525. Buckingham Shum, S., Ferguson, R., & Martinez-Maldonado, R. (2019). Human-Centred Learning Analytics. *Journal of Learning Analytics*, 6(2), 1-9. Holmes, W., Porayska-Pomsta, K., Holstein, K., et al. (2021). Ethics of AI in Education: Towards a Community-Wide Framework. *International Journal of Artificial Intelligence in Education*.

Poster 17

What is the best way to learn clinical and non-technical skills using Virtual Reality?

Ben Taylor, Tracey Beacroft

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Virtual Reality (VR) is a form of immersive technology where the learner is immersed in a virtual environment [1]. Despite multiple studies supporting the use of VR in undergraduate medical education [2], there are unanswered questions regarding best practice for learning of skills with VR. One question is whether the degree of immersion is important to learning i.e. is the use of a Head Mounted Display (HMD) superior to computer screen-based VR in terms of learning outcomes and user experience. We are currently undertaking data collection for a pilot study to evaluate the most effective way to deliver skill training using VR to medical students. This study will seek to answer the question: Are there differences in skill acquisition (both measured and self-assessed) and reported learner satisfaction comparing fully immersive VR with headsets versus partially immersive VR on a laptop? We are using a platform called Oxford Medical Simulation ©. OMS is an advanced, commercially available VR learning platform that provides learners with an authentic experience to practice in a safe learning environment. The platform allows learners to practice both technical skills eg performing an A-E assessment and clinical management skills plus non-technical skills eg clinical reasoning and team communication.

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1. Pottle J. Virtual reality and the transformation of medical education. *Future Health J.* 2019;6(3):181-185. [doi:10.7861/fhj.2019-0036] [PMID: 31660522] 2. Jiang H et al. Virtual Reality in Medical Students' Education: Scoping Review. *JMIR Med Educ* 2022;8(1):e34860 [doi: 10.2196/34860] [PMID: 35107421]

Poster 19

Embedding Virtual Patient Simulations into the medical student curriculum utilising a process of identification of curricular gaps in communication skills training

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The Problem and why it is important: Excellent communication skills are prerequisite to becoming a competent healthcare professional. Communication skills are complex and require effective education programmes, opportunity to practice and receive feedback[1]. Clinical placements seek to provide sufficient opportunities to develop communication skills, however optimal teaching in busy clinical sites and access to a broad range of patient groups cannot be assumed, added to challenges for learners for whom English is a second language. Virtual Patient(VP) Simulations are simulated doctor-patient interactions, affording experiential learning through practice without fear of failure or patient harm and have been used successfully in medical education[2]. Inclusion of a coach within VP scenarios facilitates on-the-spot feedback.

What was done

This work describes the process by which gaps in communication skills training were identified through blueprinting the medical curriculum against the framework for communication developed by Denniston [3] in line with the consensus framework[4]. Gaps identified form the basis for development of a suite of VP scenarios for delivery across five clinical attachments.

Findings

We will describe the process of curriculum mapping, collaborating with content experts and learners, to develop and embed VPs into an international medical curriculum. Data will be shared following planned launch early 2025.

References:

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Oral 20

You've got a friend in me? A scoping review of near-peer teaching in simulation-based education for undergraduate healthcare students

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Background

Simulation provides valuable opportunities for experiential learning for undergraduate healthcare students and is now embedded within modern curricula. However, effective simulation can be resource-intensive, and students may be recruited as faculty to help increase provision¹. As in other areas of healthcare education, near-peer (or peer-assisted) learning is an established method to deliver and enhance student learning, with reported benefits for learners, peer-tutors and institutions². Typically, near-peer describes use of more experienced students as faculty for teaching and training those in earlier years of a curriculum³. This scoping review therefore aims to map current use of near-peer faculty in undergraduate simulation with respect to peer roles, educational settings, provision of training and assessment of competence. It will also aim to demonstrate if, and under what circumstances, near-peer education in simulation is beneficial for learners, peer-faculty and institutions, as well as highlighting areas for future research.

Methods

A systematic search strategy was used to retrieve relevant studies from 8 databases including PubMed, Web of Science, CINAHL and Scopus in August 2024 in accordance with the Arksey and O'Malley scoping review methodology⁴. Included papers were independently screened by two reviewers and data was subsequently extracted using a standardized proforma.

Results

The initial search yielded 857 results, of which 561 underwent title/abstract screening after removal of duplicates. Full text review is currently underway. Results will be presented in both tabular and descriptive formats.

Conclusion

The results of this scoping review will help to inform the ongoing development of a peer-faculty programme as part of the MBChB simulation strategy at the University of Aberdeen, as well as summarizing current evidence and directing future research towards addressing identified knowledge gaps.

References:

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Oral 21

How do Physician Associate students experience the chaperone role during Intimate Examinations?

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Introduction

The highest professional standards of practice must be adhered to during Intimate examinations (IE). Professional regulators, defense organisations and professional bodies agree that patients should be offered a chaperone when undergoing IE. The chaperone is selected by the assessing clinician to act as an impartial witness during the procedure, to support the patient's needs, and to testify that professional standards were adhered to or raise concerns when necessary. However, it is also accepted that patient choice should determine whether a chaperone is present during IE. Despite its importance to professional practice, evidence suggests that the chaperone role is used variably in practice. It is postulated that the reasons for this are complex and multifactorial. The chaperone role has also received little attention in health education literature and uncertainty exists as to how students perceive the role and learn how to adopt it in practice.

Method

Ethics approval was gained to recruit final year Physician Associate students studying at a single Higher Education Institution in the UK. Semi-structured interviews were used to evaluate "How do Physician Associate students experience the chaperone role during IEs?"

Results

Interview data was thematically analyzed and the following themes were inductively generated: 1)Negotiating Intimate Examinations (IE), 2) IE produces emotional labour, 3)Understanding the chaperone role - the impact of practice, 4) The sense of safety in following 'procedure'.

Conclusion

Learning to perform IE is complex, culturally sensitive and the emotions generated moderated by many factors, including experience. The understanding of the chaperone role and its responsibilities is variably understood and evolves with clinical experience. Following procedure produces a sense of professional safety.

Poster 22

Consent to medical student teaching: an observational, cross-sectional study exploring the patient view

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Background

New Zealand guidelines stipulate that patient consent is obtained for medical student involvement in clinical care, however, patients' preferences regarding consent for medical student teaching have not been widely explored. This study examined patient preferences for consent for medical student teaching based on a national consensus statement.

Method

Observational, semi-qualitative cross-sectional study of in-patient participants for nine hypothetical clinical scenarios asking their views on their preferred, mode of (implicit, verbal or written), timing of, and who should take, consent. Ordinal logistic regression mixed models used to investigate associations between patient characteristics and chosen mode of consent.

Results

123 participants (50% male) with a median age of 64 years (IQR 48-73). Increasing age was statistically significantly associated with a preference for verbal and implicit rather than written consent for seven of the scenarios. The majority of patients preferred verbal consent across all nine clinical scenarios (57 - 82%), including two surgical scenarios where verbal consent was preferred by 59%.

Conclusions

Although patients' views generally align with an existing national consensus statement, there is variability in the expectations of patients suggesting flexibility in the consent process is needed. The preference for older patients for verbal or implicit consent compared with younger patients for more invasive scenarios highlights the need for consideration of inter-generational differences.

Oral 23

Risk Assessment Processes within Healthcare Simulation Centres

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Simulation-based education has become a mainstay within tertiary and healthcare environments with simulation centres constructed regularly as hubs for such training and rehearsal. Participating in simulation activities introduces latent and frequently unacknowledged risk. All workplace activities contain inherent safety threats; however, within the context of a simulation centre - these may be potentially unique. A scoping review was undertaken to identify how risk is assessed, measured and mitigated in the context of learning in simulation healthcare centres/suites. The review adhered to the Preferred Reporting Items for Systematic Reviews and Meta Analysis extension for Scoping reviews (PRISMA-ScR) guidelines and has been registered with Open Science Framework <https://doi.org/10.17605/OSF.IO/YR57V>. Ethical approval was not required for this review, as it involved the analysis of publicly available data. The initial search yielded 490 references. After the removal of 50 duplicates, 440 references were screened based on titles and abstracts. Of these, 32 articles were retrieved for full-text review with eight studies meeting the inclusion criteria. The greatest risk associated with simulation centre learning and teaching was sharp injuries followed by manual handling injuries and fainting (Hambridge 2020). Only one study described a pre risk assessment and this was in response to public health orders (Canning et al 2020). The design and implementation of standardized risk assessment framework specifically for simulation centres could significantly improve the quality and safety of simulation activities. Additionally, there is need for the development of simulation centre-specific adverse event reporting pipelines. Such systems would facilitate better data collection and analysis, enabling continuous quality improvement and the establishment of a stronger safety culture within simulation-based education. While simulation is widely recognized for its role in promoting patient safety, there needs to be a response to the call for a systematic approach to risk assessment, risk mitigation and risk reporting in this unique context.

Workshop 24

Using a Professionalism Curriculum framework to Enhance Clinical Education, Training and Practice

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Objectives

To improve teaching and assessment of professionalism in medical, nursing and allied health courses by exploring the advantages of teaching being based on a dedicated curriculum framework. A professionalism curriculum framework designed for Optometry courses in Australia will be discussed. During this workshop participants will reflect on how they currently teach professionalism and integrate the material across their program. Learning objectives and case-based scenarios at novice, intermediate and entry-to-practice levels will be considered in the context of the three professionalism themes from the Australian Optometry framework:

Theme 1: Providing care that is in the best interests of the patients and their carers, and which prioritises effective and equitable use of health resources

Theme 2: Practising in a manner that is consistent with legislative and regulatory requirements and warrants the respect and trust of the community.

Theme 3: Engaging in reflective and evidence-based practice to maintain autonomy and continually improve clinical knowledge and skills.

Workshop number: could manage a large no of participants (40 would be fine).

Intended audience

All levels of experience could gain from this discussion. Those with less experience might be interested in the broad themes, while those who teach according to a dedicated curriculum framework will gain from unpacking the themes while considering different professional viewpoints (that, for foundational concepts will have considerable overlap). Teaching methods/strategies used to teach components of the framework will be discussed by the facilitators in the context of the views/experiences shared by the participants.

Instructors qualification

A similar workshop has been run by the intended presenters for an Australian and New Zealand audience.

Professor Anthea Cochrane: Clinical Placement Co-ordinator for 15 plus years. Involved in professionalism curriculum within course for 10 years and in framework for Optometry in Australia and New Zealand for the last 5 years. International accreditation committee experience for optometry

courses. Member interprofessional education and practice committee at The University of Melbourne for 6 years. Faculty Student Placement Advisory Group Chair at The University of Melbourne for four years. Extensive workshop/meeting facilitation over the last 5 years. Organisation Committee for Optometry Australia CPD for the last 10 years.

Jane Duffy: An optometrist and lawyer who has practised in both professions. Currently employed in the medical program at Deakin University, Australia, where she leads, and teaches into, the ethics, health law and professionalism theme across all four years of the program. Jane's areas of expertise include the regulation of health practitioners having served on Victoria registration boards for optometrists, osteopaths and pharmacists, and more recently the Optometry Board of Australia. Jane was the foundation executive officer of the Optometry Council of Australia and New Zealand (the accreditation authority for the optometry profession) and is a member of its Accreditation Committee.

Workshop 25

Literature reviews in medical education: choices, choices, choices!

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Introduction & Aims

Systematic reviews are an established effective tool for providing evidence-based guidance in medical education, and traditionally have been considered superior to other review types in an assumed hierarchy of secondary research evidence. However, this notion has been challenged, with increasing interest in alternative types of literature reviews or knowledge syntheses conducted in medical education. The value this diversity brings to the field is increasingly recognised, with each review type offering snapshots of current evidence from differing perspectives, thus helping answer wide-ranging research questions and offering deeper insights into complex phenomena. Run by faculty experienced in literature review methodology, this workshop will provide attendees with an understanding of different types of literature review (for example, integrative, realist, scoping reviews & meta-ethnography), their theoretical underpinnings, methods, and specific applications to context-specific research questions with which they are best aligned. We anticipate this will provide a foundation to better inform attendees, own literature review projects. *ILOs- by the end of this workshop, attendees will be able to:*

- (1) Discuss the different types of literature review available to simulation-based education researchers.
- (2) Explore the theoretical foundations of different review types
- (3) Appraise the benefits of adopting different review types aligned with context-specific research aims and questions, in producing valuable new knowledge.

Session Description

The session begins with faculty sharing their experiences of implementing literature review methodologies in SBE research (including integrative, realist, and scoping), and gauging attendees' own experiences and understanding. Attendees will work in small groups scrutinising examples of reviews, discussing the advantages

and limitations of the review type before feeding back to the workshop. Faculty will then facilitate discussions concerning the theoretical underpinnings of the main review types discussed. Attendees will be tasked with distinctive research questions, to discuss a type of review to conduct, before presenting their decisions and justifications to the workshop. Faculty will facilitate an open discussion examining these decisions and justifications. Activities will generate discussion concerning which types of review are most suitable for which research questions and why. This discussion will be supplemented with strategies and practical tips in how to conduct the review types decided upon by the groups.

Expected Impact

Attendees of this workshop will gain an appreciation of the different types of literature review available to medical education research scholars and how and why different types of review may be more suitable for certain contexts and research questions than others. We hope that attendees will apply their learning from this workshop directly to their own research projects to better inform their research efforts. Through networking and sharing ideas with both faculty and other attendees, we also expect this workshop will enable a community of practice moving forward, through which SBE researchers can appreciate and support one another with projects.

Target audience

Novice or experienced educators with an interest in research methodology, specifically literature review research.

Oral 26

Health professions learners' emotions during simulation-based education: a systematic review

Samantha Dix, Gabrielle Brand, Julia Morphet, Sheena Shi, Erin Wakefield

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Background

Simulation-based education (SBE) is an emotion provoking learning situation. Arousal of emotions during SBE can affect cognitive processes and performance ability¹. Key learning traits influenced by emotions include attention, memory, reasoning, problem-solving and the ability to process, interpret and act on information²⁻⁴. Many studies have examined emotions experienced by SBE participants, with most focussed on stress and anxiety which are more likely to hinder learning, leading to impaired reasoning and decreased memory recall⁴. In contrast, positive emotions such as enjoyment and excitement have been shown to improve learning, increasing motivation, creativity and decrease cognitive bias^{1,3}. In order to maximize learner engagement, improve learning capacity and provide high quality learning experiences that prepare learners for future clinical practice, emotional influences on learning during SBE requires further consideration.

Method

A mixed methods systematic review was conducted to explore the impact of learner emotions experienced during SBE. The research questions framing the review were:

1. What are the emotions experienced by healthcare clinicians and students during SBE?
2. What are the triggers for emotional arousal during SBE? and
3. What is the impact of emotions on learner outcomes?

Results

176 studies were included in the review, representing thirteen health professions across 33 countries. A range of 59 different emotions were reported by participants, with both positive and negative valenced emotions experienced. Factors that triggered emotions of participants during SBE include being in simulation, simulation unknowns, simulation performance, roles in simulation, type of simulation and the connection with humans and their stories. Emotions impacted participants, performance and learning yet also helped prepare for emotional responses in clinical practice. SBE debrief was an important catalyst for validating and processing emotions.

Discussion & Conclusion

This presentation will outline the key findings from the review and discuss the implications for future SBE practice and research.

References

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Oral 27

Ethical Coffee Room and Ethics Simulations - An international and interprofessional collaboration project

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Introduction

Ethical Coffee Room (ECR) and Ethics Simulations (ES) are learning activities included in an international and interprofessional course in ethics for healthcare students. The course includes three parts: theories and concepts of ethics, ethical coffee room and interprofessional ethics simulation. The course is a result of an EU Erasmus+ project between Karolinska University Hospital (Sweden), Turku University of Applied Sciences (Finland), Riga Stradins University (Latvia), University of Malta and University of Valencia (Spain). The course was piloted as one-week international course in Malta in spring 2024 with 20 nursing and physiotherapist students and 9 teachers from participating countries.

Methods

The course included ethics theory and learning activities ECR and ES. ECR is a discussion forum for various ethical issues presented through vignettes and the participants' own cases. Ethics simulations consisted of scenario training of patient cases with focus on ethical aspects. Students and teachers were actively involved as simulated patients, healthcare staff, relatives or as observers. Short scenarios were performed followed by a discussion. The discussion included a de-briefing and discussion related to ethical concepts.

Results

Students' evaluation shows that ECR was experienced as a safe place to discuss and reflect on ethics. Learning with and from peers and bringing the ethics theory into real life experiences and situations was highlighted. Students also appreciated the interprofessional interaction. Students expressed that being actively engaged in different roles and discussions made them more aware of ethics and felt more prepared to face complex situations.

Conclusions

Ethics is an essential part of healthcare education, but also challenging for students to make sense of the theories and apply in patient care. Learning activities, based on real-life cases and where students are engaged in various ways and supported by teachers, can strengthen students' awareness of and ability to apply ethical concepts in patient care.

References

Manninen K, Björklund G, Kuznecova J, Lakanmaa R-L. Ethical Coffee Room: An international collaboration in learning ethics digitally. *Nursing Ethics*. 2020;27(8):1655–1668. doi:10.1177/0969733020934145 EthCo ,Ai For better ethical safety in future health care environments: <https://ethco.turkuamk.fi/>

Poster 29

Using simulation to develop clinical reasoning and clinical skills in Physician Associate students

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Clinical reasoning should be of interest to educators due to its importance in clinical practice, particularly relating to diagnostic error (1). This skill has usually been taught to Year 1 Physician Associate (PA) students at the University of Aberdeen with weekly, small group, classroom discussions using case scenarios. Our aim was to increase student appreciation on the clinical relevance of this teaching and improve engagement.

We added a simulation session at the end of their year where we ask students to assess a simulated patient by:

- taking a focussed history and examination
- deciding upon and interpreting their chosen investigations
- coming up with a diagnosis

This is followed by a debrief with verbal feedback from the tutor and patient. Scenarios use core conditions that the GMC expects a PA to reasonably assess and initiate treatment in (2) e.g. atrial fibrillation with heart failure, hypertension, cholecystitis.

Student feedback has been very positive with all respondents (n=8) finding the session enjoyable and helpful in developing their clinical reasoning. We have continued to run this session annually and have now added two more simulation sessions earlier in their year.

1. Cooper N, Bartlett M, Gay S, Hammond A, Lillicrap M, Matthan J, Singh M, UK Clinical Reasoning in Medical Education (CRiME) consensus statement group. Consensus statement on the content of clinical reasoning curricula in undergraduate medical education. *Medical Teacher*. 2021 Feb 1;43(2):152–9.

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Workshop 30

Faculty development for introducing Programmatic Assessment into your healthcare curriculum: Making the switch to assessment for and as learning using Learning Advisors

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Background

Most current healthcare-professions educators work within institutions that have been socialised into systems of assessment of learning, which are based on high-stakes summative assessments with objective and structured quantification of students' performance. In programmatic assessment, there is an emphasis on assessment for and as learning, which focuses on subjective narrative-rich descriptive feedback, with student outcomes based on collation of data from multiple low-stakes sources. Current theoretical summative assessment design focuses heavily on measurable outcomes, such as numbers and grades, within a traditional University administrative structure based around these outcomes. Therefore, healthcare professions educators need to develop an awareness of new perspectives that appreciate the underlying theory of assessment for learning, whilst complying with accreditation requirements in the assessment of and as learning. This workshop will address the theoretical and practical aspects of both these requirements.

Objectives

This workshop is designed to give healthcare professions educators a greater understanding of the opportunities and challenges that institutions face in the design and implementation of programmatic assessment. The workshop will explore the basis for these factors from a human, education, and institution perspective, sharing tools developed in the context of large-scale cultural change, focusing on the Learning Advisor role in resolving the tension between assessment of learning and assessment for and as learning.

Structure

The workshop has three parts.

- i) Recap of the principles of programmatic assessment for learning, and why there may be difficulties implementing it within your institution.
- ii) Introduction to the concept of a Learning Advisor, to undertake student appraisal and facilitate student learning.
- iii) The practicalities of Faculty development to ensure that a Learning Advisor is embedded with the curriculum, to facilitate the successful transition of programmatic assessment into a healthcare curriculum. Attendees. Healthcare educators, curriculum development staff, and administrators, wanting to increase their understanding and ability for introducing a

curriculum of programmatic assessment.

Maximum number of attendees 40.

Presenter Associate Professor Stuart Lane is Director of the Sydney Medical Program, and a recognised expert in curriculum development and programmatic assessment.

Round Table Discussion Group 34

The West of Scotland Faculty Development Programme - does it cover all elements needed to progress from growth to maturity?

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Within the published literature, there are descriptions of the phases of faculty development such as “discovery, growth, maturity” or locally within Scotland, our Clinical Skills Managed Education Network (CSMEN) describe these stages as tier 1, 2 and 3. Each tier has defined intended learning outcomes and there is an online educational programme for these tiers. However, whilst there are descriptions of expectations for each phase, there is no clear “how to get there” step by step process. Within the West Of Scotland (WoS), we have developed a face to face programme, which incorporates the learning outcomes defined within the CSMEN tier structure, and certain other aspects the authors believe to be of importance and relevance. This programme consists of a full day “Introduction to debrief” course, followed by 8 distinct four-hour workshops on aspects of simulation based education, aimed at creating deeper knowledge to enhance educator skill. The workshops follow 2 strands - debriefing and supporting simulation workshops. The supporting workshops include how to write a scenario, understanding non-technical skills, pre-brief, a “tech” workshop and importance of the embedded professional and in-situ simulation. The debrief strand includes basic debriefing strategies, inter-professional co-debriefing and advanced debriefing strategies. This journey is augmented by a metadebrief process, delivered in groups or by 1:1, both processes following the four pillars of metadebriefing. Whilst the author group consider this to be a complete package, we are also aware of the limitations of our structure and other aspects we have not considered e.g. would this package be equally effective in a rural setting where face to face workshops are impossible? What are the cultural, financial or societal considerations if this is delivered outside a UK healthcare system, and in particular where the majority of faculty are middle class white? In essence, how can our process be adapted to allow it to be delivered as a standardised faculty development course? The intended audience are those who design, deliver or are responsible for faculty development within simulation based education. The primary intended outcomes are to review our programme and consider developments to make it more widely applicable. The first author is the associate director

of education for simulation training in the region and the second author is deputy director of medical education in adjoining region, as well as director of clinical skills managed education network for Scotland.

Oral 35

Experience of Graduate Entry Medical (GEM) Students in understanding and developing clinical reasoning during the preclinical course - a longitudinal study

John Frain, Magdy Abdalla, Anna Frain

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Aim

To understand first year GEM students' concepts of clinical reasoning on beginning medical training and their subsequent development through teaching and encountering patients in preclinical years.

Background

Clinical reasoning is a process where a clinician observes, collects and interprets patient data for the purpose of managing a patient (1). Effective clinical reasoning is required for safe patient care (2). Diagnostic error is linked to flaws in clinical reasoning. Evidence supports teaching students "how" to clinically reason from day one. This includes reflection on sources of error including faulty data gathering, inadequate reasoning (3) but also how well clinicians communicate with patients (4). Little research explores how GEM students incorporate clinical reasoning concepts into their thinking.

Method

This study explores: How understanding and synthesis of patient information with medical knowledge develops longitudinally during training and how this is identifiable from exploring the students experience of encountering patients and case-based discussion. Students' initial understanding on entering the course of what is meant by clinical reasoning gained from their own thoughts, previous teachers and/ or clinical & work experience. Events impacting students' perception and development of clinical reasoning Students' experiences of these events The longitudinal development of students' perception, experience and self-perceived understanding of clinical reasoning during the preclinical course Interpretation, learning, internalizing and consolidation are reflective processes. Embedding of clinical reasoning concepts among GEM medical students were explored through Interpretative phenomenological analysis (IPA). An initial focus group identified key themes in a new GEM cohort. These were explored subsequently in three semi-structured interviews during terms one, three and five of our preclinical course.

Data analysis

Transcribed interviews were analysed using interpretative phenomenological data analysis facilitated by NVivo 14.

Results

Our presentation will discuss subsequent evolution of themes and sub-themes identified at the outset of training until transition into clinical phase.

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Poster 36

A breath of fresh air: Interprofessional Respiratory simulation

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Introduction

Simulation based training (SBT) uses an artificial environment to allow participants to learn through experience and is used in a variety of healthcare settings. Improving interprofessional teamwork is challenging due to variability in clinical experience and rotational training.

Aim

To develop a SBT programme for the inpatient respiratory multi-disciplinary team to include both non-technical and technical skills.

Methods

A pilot scenario was designed to address learning objectives based on themes identified from incident reports and patient complaints within the department. The scenario simulated a deteriorating patient on the ward. The participants included a healthcare support worker, a nurse and two doctors. A structured debrief followed on from the scenario. Participants completed a questionnaire prior to the session and after to self-report confidence with the skills discussed and SBT.

Results

Initial feedback showed that participants were more comfortable with SBT and they felt more confident in the technical and non-technical skills discussed.

Discussion

All members of the multi-disciplinary team (MDT) self-reported increased confidence regarding both technical and non-technical skills. Psychological safety of the learners must be considered throughout scenario design especially with the variability in simulation experience. The pilot scenario revealed the ongoing need for recruitment and development of faculty.

Oral 37

Teaching female pelvic examination to Graduate Entry Medicine (GEM) preclinical medical students - a pilot study

Anna Frain, Olivia O'Connell, John Frain

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Aim

Development and evaluation a workshop on female pelvic examination in which students learn technical skills alongside clinical communication with patient volunteers. Background Confidence in female pelvic examination depends on training, opportunity in clinical practice including availability of chaperones and supervision. Gender is a limiting factor with both male students and clinicians reporting fewer opportunities and less confidence (1). These factors can all contribute to the possibility of UK graduates qualifying without ever have undertaken a female pelvic examination (2). There is a strong correlation between the number of examinations performed and their self-perceived competence in performing the examination (2,3). The Association of American Medical Colleges recommends entering clinical training as advanced beginners in both breast and pelvic examinations (4). Pelvic examination is also stressful for patients and an anxiety-provoking experience. Women have poorer outcomes often through poor healthcare experiences. We listened to students' concerns we taught intimate male examinations but not the female pelvis examination.

Method

A literature review was undertaken of evidence for teaching pelvic examination in a preclinical setting. Models combined with live volunteers were chosen to facilitate students development of desirable communication skills. Representative models were purchased. New resources included an evidence-based checklist, clinical background, PowerPoint presentation and quiz. A film demonstrating the examination was produced. Training was provided to staff facilitators and patient volunteers. Skills were assessed in a subsequent OSCE.

Data analysis:

Pre- and post-workshop feedback was gathered from students and post-workshop feedback from the patient volunteers. Students' learning of the skills and quality of student communication with the volunteers were evaluated. Students and volunteers were invited to provide free text comments also.

Results

We will discuss the challenges of developing the workshop, the evaluation of this workshop and assessment, and provide a blueprint for others to develop their own.

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Oral 38

Co-production in Transgender Health Education - a patient and student collaborative mixed methods study

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Aim

Exploring patient and medical student perspectives on the learning needs and expectations of future doctors in transgender health Background Twenty-five million people worldwide experience their gender identity differently to the sex they were assigned at birth (1). Many transgender people experience individual, interpersonal, and organisational barriers to healthcare (2). Improving medical education is necessary to address these barriers and currently educational research focuses on LGBTQIA+ health collectively rather than specifically about transgender health (3). Among medical students, only two online surveys have reported their attitudes and knowledge of transgender health (4).

Method

Following ethical approval, data were collected using mixed methods: Initial interviews with volunteers with a personal transgender history for a new workshop on transgender healthcare experience. Online self-assessment of learning needs of second year graduate entry medical students. Evaluation by students and volunteers of a new workshop on transgender healthcare experience. A volunteer and student focus group to discuss emergent themes from the workshop to develop longitudinal teaching on transgender health. Initial interviews involved five volunteers who agreed to participate in an in-person teaching session during October 2024. Snowball sampling was used. The volunteers' role did not involve their gender identity but instead explaining their healthcare experience as transgender individuals to our students. Data from interviews and online survey were used to create the workshop content with the volunteers.

Data analysis

Qualitative data analysis (initial interviews and post-session focus group) was facilitated by NVivo 14. Quantitative data analysis (online student self-assessment; workshop evaluation) used Excel. For pre- and post-session evaluation, a paired-t test was used to assess for significant change.

Results

Learning from this co-production by volunteers and students will be presented along with the main emergent themes. We will outline incorporation of transgender health needs into our wider curriculum.

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Poster 39

Near-peer simulated clinical skills teaching effectively contributes to the training requirements of early postgraduate NHS doctors

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In 2022, over 8000 medical school graduates were matched to the UK National Health Service (NHS) two-year foundation program. During each of the two years, they are required to log 60 hours of teaching, the organisation and delivery of which isn't without cost. Near-peer simulated clinical skills teaching effectively contributes to the training requirements of early postgraduate NHS doctors. We hypothesised that near-peer simulated clinical skills teaching, delivered by local registrars face-to-face, is an effective way to deliver some of these teaching hours. We present and analyse the survey data collected from all of the skills sessions delivered over a 13 month period, 118 foundation year 2 (FY2) doctors from across the Peninsula region. From April 2023 to April 2024; a total of 118 FY2s attended a voluntary clinical skills day comprising of 6 skills sessions. For each of the six sessions, they were asked 4 questions on a feedback questionnaire using a 1-5 Likert scale. Questions focused on session utility, changes in confidence, quality of feedback and whether the sessions were interesting. The median reply to all questions across all skills was 5, which represented the strongest positive feedback possible. Of particular significance was the question "please rate any change in confidence in this skill following the session" with 5 representing an answer of "very positive change". We conclude that locally delivered, near-peer teaching, is an effective way to deliver some of the training requirements for foundation doctors within a health service facing ever increasing competition on its resources.

Oral 40

The Medical Student Journey: Longitudinal Curricula to Support Effective Clinical Skills Education

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Every new physician must gradually acquire a core set of clinical skills during their training.¹ The journey from the first to the final year of medical school is a transformation that requires careful consideration and planning by faculty and deans.

At one four-year medical school with a rural campus and geographically distributed clinical sites, a team of medical educators with responsibilities across the entire undergraduate medical program. Between 2017 and 2019 (Stage 1), we used guidelines from the Association of American Medical Colleges (AAMC)² to map and launch a revised, integrated curriculum. That curriculum included longitudinal threads embedded into core courses across all four years. Between 2019 and 2024 (Stage 2), we have accomplished two major updates: 1) refining the embedded longitudinal threads and 2) layering on complementary co-curricular opportunities. To accomplish the second stage of curriculum reform, a core group of faculty and staff focused on the following types of changes: 1) Streamlined embedded core curricula: Longitudinal Curricula moved from 18 to 8 threads and 2) Expanded extra-curricular opportunities: Added Pathways including Spanish language, rural and urban and Scholarly Concentrations including wilderness medicine and digital health. All intra- and extra-curricular offerings were mapped to AAMC objectives as well as Entrustable Professional Activities (EPAs). Student engagement and feedback was essential at all stages. In this presentation, we outline key components that we included in the development of our longitudinal programs: strategic planning, budgets, infrastructure and administrative support, faculty leadership and development, clinical partners, goals and objectives, didactics, assessments³, evaluations, and deliverables for students including acknowledgement on their residency application materials and diplomas. Of note, we did not include longitudinal clinical care into our programming. We will present each of these longitudinal curricular components separately and well as key decisions, lessons learned, and next steps. Other institutions could implement comparable programs.

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Oral 41

Using CUS Words to Speak Up: Eight Years of Interprofessional Collaboration Across Three Health Care Professions

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Interprofessional education (IPE) is foundational to connect, integrate, and coordinate collaborative practice for future clinicians. The IPE Collaborative (IPEC) Core Competencies were first adopted in 2011, updated in 2016, and revised in 2023. [1] In our region of the United States, strategic programming and curriculum development brings together key stakeholders from nursing, physician assistant (PA), and medical schools to support learners training in a common health system. [2] For participants, our one-hour, scenario-based approach utilizes common communication techniques used in the national TeamSTEPPS curriculum. [3] The CUS tool (keywords are Concern, Uncomfortable, Safety) is showcased to address a patient safety issue in a supportive learning space. The premise of CUS is to use a common language and signal phrases that are understood in most healthcare systems so that all team members can clearly understand an issue, in this case informed consent, and its magnitude relative to the patient in their care. We have delivered this safety-centric curriculum for eight years to approximately 700 learners across medicine, nursing, and PA programs. Evaluation data show that this scenario-based program is highly valued by students and faculty. We will present a summary of our longitudinal curricular evaluations to illustrate both student satisfaction and skills improvement. IPE is a heavily resourced portion of our curriculum, so to continue to produce it in its current iteration may not be sustainable. In addition, major external changes in leadership, facilities, class sizes, and healthcare systems impact multiple institutions' shared curricula. At this time, review is underway to reduce resources while still providing valuable learning opportunities for students and stakeholders. In the next stage of curriculum development, implementation, and evaluation, we are aiming to streamline resources while also supporting sustainability. We will present our initial ideas for simplification and welcome input from experienced attendees.

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Poster 43

Virtual Reality: Pioneering the Future of Paramedic Training

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Purpose

This study evaluates the effectiveness of Virtual Reality (VR) training in improving paramedics' preparedness and response skills during mass casualty incidents (MCIs).

Design

An observational study was conducted with registered paramedics and intensive care paramedic students from NSW Ambulance. Participants completed a 30-minute VR training session simulating a car crash MCI scenario. Pre- and post-intervention surveys assessed gaming literacy, prior simulation experience, and perceived improvements in MCI response skills.

Findings

The results demonstrated notable improvements in paramedics' confidence and MCI response abilities. Before the VR training, only 30% of participants felt confident managing an MCI. After the training, over 90% reported enhanced skills in triage, patient management, and addressing self-identified weaknesses. Participants found the VR technology easy to use, immersive, and reflective of real-world conditions, with all respondents noting the scenario's applicability to their work environment.

Research Implications

The study underscores the need for standardised protocols and performance metrics in VR training to ensure consistent results across different settings. Future research should investigate long-term skill retention and incorporate objective performance data, such as heat mapping and time tracking, to validate VR training outcomes. The findings also support the integration of VR into paramedic training to bridge the gap between theory and practice in MCI scenarios. Customising VR modules based on individual gaming literacy can enhance user engagement and training effectiveness.

Value

This study contributes to the growing literature on VR in emergency medical training by demonstrating its potential to improve paramedics' MCI preparedness through realistic, repeatable, and immersive training.

Workshop 44

Educational Design Research to bridge the theory-practice gap by drawing on the *present* to guide the *future*

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Background

Clinical education research offers many challenges occurring in complex learning environments, with varied contexts, involving an array of stakeholders. Research outcomes often fail to have a significant impact or build theoretical understanding about clinical education. Bridging the gap between research and practice, building new theoretical understandings, and generating outcomes that can be adopted to new contexts, are often cited as limitations. To meet these challenges, educational design research (EDR), also known as design-based research, is a practical approach for investigating wicked educational problems. It simultaneously enables the following outcomes: development of creative solutions; refinement of educational theories; and dissemination of transferable learning design principles. Outline of workshop activities: Initially participants are briefly introduced to the three phases of EDR: analysis and exploration, design and construction, and evaluation and reflection. In small groups, participants will engage in a simulated clinical education challenge experiencing the initial phases of EDR and the decisions that need to be made during the research process. Additional examples of EDR will be provided to demonstrate the flexibility of the research methodology, and in the final segment of the workshop participants will be directed to resources to assist them to plan their own EDR project. From immersion in this challenge, they will experience first-hand EDR in action and gain the tools needed for application of this research methodology in their own educational context.

Workshop objectives

As a result of participating in this workshop participants will: Become familiar with the three-stage process for conducting EDR; Learn through highly interactive debate how the three-stage process of EDR can guide the research process; Identify a clinical education problem relevant to their context and gain the resources they need to plan their own EDR project.

Intended audience

This workshop is applicable to all participants who have educational issues or problems that need solutions. Educators, clinicians, researchers and students will gain value from the workshop. No prior research expertise is required. This workshop involves small group activities and could accommodate up to 40 participants' Instructor's qualifications and prior experience: The presenters have considerable expertise in adopting EDR in their own research and guiding others to use this approach. Helen completed an award-winning PhD using EDR, has published in the area, and recently completed a large grant which used EDR to research workplace-based assessments. Helen and Liz have presented EDR workshops in both national (ANZAHPE) and international conferences (AMEE & Ottawa).

Workshop 45

Watch and Learn: What is the Directed Observer Role and Why Should I Use It?

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With limited resources and the availability of hands-on roles in simulation-based education (SBE) educators must be able to incorporate strategies to maximise learning in observer roles. Additionally, the observer role offers opportunities for learners that are not easily accessed by those in hands-on roles. Recent studies have shown learning in the directed observer role can be equivalent to the hands-on role Delisle et al. (2019); O'Regan et al. (2016). Underpinned by social learning theory, this workshop will equip attendees with strategies for the pre-brief, during the simulation scenario, and in the debrief to leverage learning for observers; thereby increasing the actual and perceived value of this role for both educators and learners. The content of the workshop will define directed observer roles and in-scenario observer roles and attendees will explore incorporating these roles into scenarios. Educational strategies for the workshop will include large and small group discussions, video-triggered activities, and group development of observation tools, prebriefing scripts and debriefing strategies.

Learning Objectives

By the end of this workshop learners will:

- identify the different observer roles and how they impact learning in simulation-based education;
- be able to incorporate the directed observer role into their simulation scenario designs;
- have practised strategies to maximise learning opportunities for observers; have developed an awareness of the additional learning opportunities for observers not readily available to those in hands-on roles;
- be able to defend their use of the directed observer role to learners, colleagues and education sponsors.

Intended Audience

This workshop is suited to all levels from beginning to expert. The only pre-requisite is some experience with designing, delivering and debriefing simulation scenarios. The workshop can cater for larger groups of 40+ participants. Workshop Lead Stephanie O'Regan is an SBE educator with more than 20 years experience. She has facilitated many conference-based workshops both in Australia and

internationally. The observer role was the focus of her PhD thesis and she published in this area with her initial systematic review of factors supporting learning in the observer role (2016) having more than 100 citations.

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Workshop 46

Interested in getting the scoop on scoping reviews? Join us to explore the what, why, how and with whom

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In the health professions education literature, we have observed a growing interest in scoping reviews as a key approach for knowledge synthesis. We have a particular interest in simulation-based education in healthcare and have designed the workshop drawing on examples from this context. In the workshop, participants will gain an in-depth understanding of key components of scoping reviews, including rationale, theoretical and practical considerations. By the end of this workshop, attendees will be able to: Describe the rationale for undertaking a scoping review, Outline steps to undertake a scoping review including the what, why, how and with whom, Review theoretical and practical considerations in each step of a scoping review

Session outline

Introductions and brief sharing of scoping review experience, Overview of scoping reviews including history, rationale, key concepts, Breakout task 1 - Small group work with facilitation - Analysis of a scoping review paper (each group to work on a different component so in the next activity, the whole paper has been “analysed”). Breakout task 2 - Small group work with facilitation - Each group to work on a component of a scoping review ensuring the what, why, how and with whom of reviews are covered (e.g. developing a question; determining sources; using Covidence; extracting data; involving a knowledge user group etc.) Whole room discussion of ideas shared, proposing action plans going forward and Q&A. Closing session including orientation to enduring resources.

Session Description

The session will begin with faculty interactively sharing their experiences of scoping reviews; and, using Mentimeter, we will gauge participants' experiences, knowledge and questions. In the first group activity, we will invite participants to analyse one section of a published review so the strengths and limitations of a review can be identified. Each group will share their observations of their allocated section. This will enable participants to see what a whole scoping review looks like. In the second activity, we will focus on practical

considerations for each step in conducting a scoping review. Again, different groups will address different steps to ensure coverage of a whole review. We'll discuss the questions that can scoping reviews answer, the selection of review frameworks, the role of "consultation" (knowledge user groups), the registration of protocols and more. The small groups will be invited to share a summary of their discussions with the whole group. The workshop will be supplemented with enduring resources, outlining strategies and practical tips in conducting and publishing scoping reviews.

Instructors Qualifications

CB is a senior clinical lecturer in clinical simulation, University of Aberdeen, AD is a senior research fellow, Royal College of Surgeons in Ireland, DN is a professor of healthcare simulation, Monash University and professor of surgical education, University of Melbourne, SS is a senior lecturer (teaching and scholarship), University of Dundee. The faculty have extensive experience of scoping reviews and offering workshops to international audiences.

Expected Impact

We hope this session will prompt further conversations regarding scoping reviews and inform future research promoting best practice and foster relationships for joint review work.

Workshop 47

Professional Empowerment - a safe space, stimulating discussion by using dramatic scripted scenarios to simulate a range of exemplars of discrimination

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Workshop objectives

to introduce a session we have developed for senior medical students on professional empowerment and provide attendees the opportunity to take part in the session and to develop a scenario using template.

Background

At University of Aberdeen we gathered a diverse development group drawing on range of expertise (education and curriculum development; patient safety and human factors; interprofessional clinical practice and also personal experiences as patient, practitioner and academic) to develop a session on professional empowerment, to provide a safe space to learn about and discuss students' own experiences and to stimulate discussion by using dramatic scripted scenarios to simulate a range of exemplars of discrimination followed by interprofessional facilitated learning conversations.

Workshop Outline

Introduction to professional empowerment, context for session and ground rules (10min). Practical breakout working through materials (20mins) Using peer scripted simulations and facilitated learning conversations on unconscious biases, recognizing and responding to discriminatory behaviours in small groups with attendees taking on roles as Students, Facilitators and Observer. Debrief on experience in small groups (10mins). Practical breakout developing scenario (20mins). Create scripted scenario and supporting documentation to prompt discussion on professional empowerment using template. Debrief on experience in small groups and summary (10mins). Further information; No prerequisites, all welcome interprofessional learning. Capacity for breakout is 5 groups of 6-8 - max 40. Presenter has worked in Medical Education and Clinical Skills for over 20 years and is lead for Professionalism and Undergraduate Clinical Skills in the Medicine Programme (MBChB) at University Aberdeen. This workshop has been delivered at UK meetings for Professional and Clinical communication.

Poster 48

Implementing an Empathy focussed curriculum in an undergraduate medical programme

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Empathy is a key priority in clinical skills and practice, which has expanded exponentially as an area for research in the medical and healthcare education literature. In Aberdeen Medical school we mapped our undergraduate clinical skills curriculum revealing although we “teach” skills and behaviours to support empathy in clinical practice we did not explicitly describe this as an Empathy curriculum. The Empathy continuum (1) expanded our consideration of what to include in our curriculum, how to frame it and ideas of how to teach, develop and maintain empathy. We set out to implement the following Empathy focussed curriculum; What is Empathy? and Empathic communication. Utilising Empathy maps to encourage students to consider the patient perspective holistically. Utilising the CARE measure empathy scale (2) for patients to provide formative feedback to students. <https://caremeasure.stir.ac.uk/> Empathy in Healthcare - patient centred. Incorporating more patient stories in clinical skills sessions and our supporting resources. Developing Psychology informed curriculum enabling and supporting patients in self management and behaviour change. Empathy, wellbeing and self care. Describe negativity bias and influence on feedback, self criticism and wellbeing instead reinforce positive. Utilising Empathy circles, active listening with another person in a group setting where they feel heard and valued. <https://www.empathycircle.com/> We also provided staff development to enable brief empathy focused interventions to be incorporated in our clinical skills teaching. We are evaluating each intervention and the overall implementation of our Empathy focussed curriculum during academic session 24-25 and will present results of these.

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Workshop 49

Supporting teachers, sustaining impact: applying system theory to implement successful faculty development programmes for Health Professions Education

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Background

Clinical teachers do not receive formal instruction in teaching during their professional training. Faculty development (FD) programmes are critical in providing the necessary skills to enhance clinicians' teaching effectiveness. These programmes, which focus on the educational theory (the 'why') and teaching skills (the 'how') are essential to improving the quality of clinical education. Maintaining sustained engagement in FD programmes is challenging due to competing priorities from health system employers and educational institutions. Clinicians are caught between their dual commitments as teachers and care givers, leading to notable tension for individuals. To address this challenge, the workshop will introduce practical and simple approaches to designing large-scale FD programmes for clinical teachers. By leveraging Ecological System Theory (EST), participants will explore strategies to overcome regulatory, institutional, and individual barriers, mitigate risks, and effectively scale up FD programmes to ensure long-term positive impact. Objectives:

1. Understand and apply EST to design Faculty Development Programmes in HPE
2. Identify key risks and mitigation to sustain these programmes
3. Articulate factors that support successful FD programmes as applied to participants' own contexts.

Workshop activities

Following a brief overview of system theory principles, the workshop will feature multiple interactive exercises through a combination of brainstorming, small group work with report back, games (e.g. bingo) and debate. Participants will role play stakeholders engaged in clinical education to explore risks, solutions and priorities when designing FD programmes. Case studies based on the instructors' experiences

will illustrate application of EST, after which participants will be given the opportunity to apply the framework to their settings. The workshop will conclude with take-home tips for implementing FD in participants' contexts with a summary provided to all participants.

Audience

Clinical Teachers, Faculty Development Leads, Curriculum and Programme Directors in undergraduate and post graduate health profession programmes from educational and/or healthcare institutions.

Instructors' qualifications or prior experience:

The international group of instructors have experience in implementing national and global faculty development programmes. Professor Ramani is immediate past president of AMEE and a world leader in HPE. Professors' Singh, Grundy and Singaram have presented over 100 talks and workshops at national and international conferences in HPE. Dr Fabrin is Director of Medical Education at a leading hospital in Denmark with real world experience of challenges when implementing FD programmes in healthcare settings.

Participants

Up to 50.

Oral 50**Enhancing Practice Readiness in New Nurses: Bridging the Gap Between Education and Clinical Practice***Suha Ballout*

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The Clinical Leadership Collaborative for Diversity in Nursing (CLCDN) addresses the gap between nursing education and clinical practice by enhancing the readiness of newly licensed nurses. The program focuses on developing essential skills such as clinical judgment, cultural competence, and ethical decision-making. These essential competencies help mitigate new nurses' everyday challenges, including anxiety, job dissatisfaction, and medical errors. CLCDN ultimately improves nurse retention, reduces turnover, and enhances patient care quality, improving clinical outcomes and healthcare system efficiency. This presentation will explore the CLCDN program's development of a transformative educational framework to enhance practice readiness. The framework equips nurses with essential skills, supporting their smooth transition into the workforce. It also addresses gaps in traditional nursing education while aligning with the growing demand for a diverse, culturally competent healthcare workforce. In collaboration with UMass Boston and Mass General Brigham, the CLCDN program implemented a curriculum emphasizing clinical judgment, cultural humility, ethical understanding, and self-care strategies. The program's impact was measured using a mixed-methods approach, which included quantitative metrics like nurse retention rates and patient safety outcomes alongside qualitative assessments of job satisfaction and perceived readiness for practice. The CLCDN program significantly improved practice readiness among newly licensed nurses, leading to a 20% reduction in turnover rates. Participants reported higher job satisfaction, confidence, and enhanced cultural competence. Reduced turnover also led to cost savings for healthcare institutions in recruitment and onboarding. Enhanced clinical judgment and decision-making among nurses contributed to better patient outcomes, including increased patient safety and satisfaction. The CLCDN program offers a scalable, evidence-based solution for enhancing practice readiness, improving nurse retention, and fostering better patient care quality. By promoting a diverse and competent nursing workforce, the program helps advance healthcare equity and positive patient outcomes.

Oral 52

Enhancing Clinical Practice Through Intrusive Writing and Social Justice Concepts in Nursing Education

Suha Ballout

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Integrating intrusive writing and social justice into nursing education is crucial for developing culturally competent and reflective nurses. The undergraduate nursing program at UMass Boston prepares nurses to address health disparities and advocate for equity by fostering critical thinking through reflective writing assignments. These assignments challenge students to explore their biases, positionality, and the impact of social determinants of health on patient care, ultimately fostering a more profound commitment to health equity. This presentation highlights the positive impact of incorporating intrusive writing and social justice concepts into nursing curricula to improve clinical practice. The aim is to develop nurses with the critical thinking, cultural humility, and ethical decision-making skills necessary to provide equitable, patient-centered care in diverse communities. In the Community Health Nursing course, students participated in reflective writing assignments. In one of the assignments, students reflected on how these concepts influence their perspective on nursing and inform their patient advocacy approach. A thematic analysis of 101 student responses revealed key themes such as advocacy for health equity, bias awareness, and the role of nurses in systemic change. Students demonstrated an increased understanding of how social determinants of health and systemic inequities shape patient care. For example, one student noted, "Nurses are the heart of the healthcare system . . . advocating for changes that can improve the population's conditions." Reflective writing also heightened cultural competence and reduced implicit bias, with students acknowledging "These concepts make me more conscious of my biases, ensuring I treat all patients equally." Incorporating intrusive writing and social justice concepts into nursing education promotes the development of compassionate, culturally competent practitioners. These reflective exercises equip nurses to address health disparities, advocate for systemic change, and provide individualized care, improving patient outcomes and advancing health equity.

Oral 53

Identifying quality feedback from clinical skills assessments to guide learner actions

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Background

Effective feedback is crucial for student learning in medical training, enhancing clinical capabilities. Feedback from workplace-based assessments (WBAs) provides useful insights for learners about their current stage of skills development. The Feedback Mark 2 model (Boud & Molloy, 2013) aims to increase the learners' agency during the feedback process and strengthen their evaluative judgement guiding improvement in subsequent activities. However, the relationship between feedback and learner actions remains underexplored.

Methods

Initially this study analysed qualitative data from 1,516 medical students' completing electronic WBA records (mini-CEX and DOPS) collected during 2021 in the final 2 years of their program. A framework was developed to assess the quality of supervisor feedback and learner action plans. Subsequently attributes of high-quality feedback identified in the initial study were applied to a new WBA data set from 2023 (36728 mini-CEX and DOPS records) to extract feedback examples across various WBA types.

Results

The quality of the supervisor feedback and learner action plans was generally low, often vague, non-instructional, or non-actionable, without direction to extend the learner's development (feedback 44%, action plans 30% of the sample). However, high quality supervisor feedback was significantly associated with increased likelihood of higher quality action planning ($p < 0.05$). Analysis of the 2023 WBA dataset identified 13154 (36%) examples of quality feedback. This led to the development of an online resource collating this feedback to support students in utilising the information while completing their own WBAs in the clinical setting. Discussion and Conclusion: Identifying attributes of quality feedback and action planning can support strategies to enhance learner agency in the feedback process in the workplace setting. Preliminary evaluation of the online modules designed to help learners recognise quality feedback has been positive. This work could be enhanced by using our framework with generative AI to analyse large WBA datasets.

References:

Boud, D. & Molloy, E. (2013). Rethinking models of feedback for learning: the challenge of design. *Assessment and evaluation in higher education* 38(6): 698-712. University of Queensland Teaching Innovation Grant Project (2022-2024): Visualising digital footprints to enhance learner engagement in work-integrated learning. Available <https://medical-school.uq.edu.au/digital-footprints-learner-engagement-WIL>

Oral 54

The impact of assessment system design on learner actions in the workplace

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Background

Assessment systems in clinical contexts routinely incorporate workplace-based assessments (WBAs) to evidence medical students' clinical skills development. While learning analytics has focused on classroom settings, applying it to WBAs can offer valuable insights into learner actions in the workplace.

Summary of work

In 2022, a digital platform was introduced for students to complete various WBAs during the final two years of a 4-year medical program. The WBA assessment design promotes student-led learning through submission targets and deadlines, and ongoing progress reviews to guide progression decisions. This study aimed to identify patterns of learner actions when completing WBAs. An analysis of the 2022 Year 3 data (20807 WBAs) from 296 students reviewed the number of submissions at three time points (early, mid and late) in each of the two 18-week semesters.

Results

Four distinct patterns of learner action were identified: exceeding targets (46%), on-track (25%), completing just enough (17%), at-risk of not meeting targets (12%). Learner patterns of completing WBAs were generally consistent across the semester, although engagement dropped in the latter part of the semester if requirements were exceeded early on. Inactivity early in the semester (before week 7), was linked to the group of at-risk learners who were offered supportive interventions at the mid-year review point.

Discussion and Conclusion

Delayed and lower WBA completion can help identify at-risk students needing more support for workplace-based learning. Data-driven approaches can enhance our understanding of learner actions in the workplace, support personalized learning strategies and highlight the importance of providing varied approaches for different groups of learners. It is also prudent to be cognisant of the overall assessment design and its impact on promoting or constraining the learner's commitment to continuous and deliberate practice in the workplace.

References: Wilson, K., & Lizzio, A. J. (2012) Engaging students who are at risk of academic failure: Frameworks and strategies. Invited Paper, 15th First Year in Higher Education Conference 2012, Brisbane. Piotrkowicz, A., Wang, K., Hallam, J. et al. (2021) Data-driven Exploration of Engagement with Workplace-based Assessment in the Clinical Skills Domain. *International Journal of Artificial Intelligence in Education*, 31, 1022-1052. <https://doi.org/10.1007/s40593-021-00264-0>

Oral 58

Harnessing the power of arts-based methods to develop empathy and compassion in nursing education

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Introduction

Arts-based methods are an innovative and creative approach that supports learning and transformation, fostering meaningful reflection and critical thinking in students, in response to complex situations, culminating in questioning of prior assumptions (Hunter & Frawley, 2023). Our team codesigned a health education program to improve the communication skills of pre-registration nursing students in engaging with someone at risk of self-harm or suicide using a short film as a trigger.

Aim

The aim was to evaluate whether the short film embedded in a nursing program supported students' learning in communicating with someone who is at risk of self-harm or suicide.

Methods

This was a concurrent multiple methods study (Driessnack et al., 2007). The program was delivered to 1015 second year nursing students, in Australia. Following delivery of a short film that presented an authentic scenario about conducting a risk assessment that nurses might encounter in their clinical practice, students re-enacted the scenario with peers and debriefing was conducted by tutors to complete the learning experience. Data were collected using a survey and Reed's (2012) Debriefing Experience Scale with five open-ended questions to collect data that measured students' response to the film.

Results

A total of 85 students (18-63 years of age) completed the survey of which 62% were born in Australia. Quantitative data revealed that the debriefing session which followed the educational program was beneficial and fostered reflection, peer learning, and critical thinking. The qualitative data identified the short film and the education program deepened students' understanding of how the person was affected by their thoughts of suicide and this made students curious to learn more about how to undertake a comprehensive risk assessment.

Conclusion

Educators can draw on arts-based methods to develop innovative health education that provides students the opportunity to develop clinical skills, like empathy and compassion, in a safe space.

References:

Driessnack, M., Sousa, V. D., & Costa Mendes, I. A. (2007). An overview of research designs relevant to nursing: Part 3: Mixed and multiple methods. *Revista latino-americana de enfermagem*, 15(5), 1046-1049. <https://doi.org/10.1590/S0104-11692007000500025> Hunter, L., & Frawley, E. (2023). Engaging Students Using an Arts-Based Pedagogy: Teaching and Learning Sociological Theory through Film, Art, and Music. *Teaching Sociology*, 51(1), 13-25. <https://doi.org/10.1177/0092055X221096657> Reed, S.J. (2012). Debriefing Experience Scale: Development of a Tool to Evaluate the Student Learning Experience in Debriefing. *Clinical Simulation in Nursing*, 8, e211-7. <https://doi.org/10.1016/j.ecns.2011.11.002>

Round Table Discussion Group 59

“Reasonable adjustments- where should the boundary lie when teaching and assessing clinical skills?”

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23% of the UK working population meet criteria for disability as defined by the Equality Act 2010 (1). Individual disability adjustments can be difficult to manage in the context of increasing class sizes, increasing complexity of needs and constraints of GMC requirements. With a move to adopt cohort level inclusive practices how far should we go when preparing students for work in the real world?

Points for discussion

All students must pass the 6 x 12 minute station OSCE Is it essential that students can perform particular examination techniques within a predefined time period? What is more important, accuracy, efficiency or both? Should this differ across years of study and how can we assess this? Consultation structure is irrelevant, diagnosis and management plan are key Should structure of a consultation matter, or should we prioritise clinical reasoning and formulation of differential diagnosis lists and management plans when assessing consultation skills? Are we disadvantaging some students from demonstrating clinical competence? Medicine is a full-time course Who is disadvantaged by this model: Students, patients, faculty? Are we setting up non-traditional background students to fail? Should we offer part time undergraduate training mirroring postgraduate models? More doctors or more inclusion?

Objectives

Challenge current thinking on OSCEs in the context of disability adjustments Explore thinking around options for delivery of inclusive undergraduate programmes

Audience

Educators with responsibility for designing and delivering teaching and assessment for undergraduate medical students.

Facilitators and experience

Dr Joanne Sloan is Head of MBChB at the University of Dundee (UoD). She is currently leading the MBChB programme review on inclusive teaching practices through collaboration locally and nationally. As programme lead Dr Sloan has experience in facilitating group discussion and debate in relation to curriculum content and review. Mrs Audrey Gregory is Senior Advisor of Studies and Lead for Student

Support at the UoD. She leads the student support team and represents the School on both local and national students' welfare groups. She works collaboratively with disability services in ensuring the needs and expectations of students and the school are aligned. Dr Lynn Urquhart is the Assessment Lead for the MBChB programme at the UoD. Dr Urquhart is leading a review on inclusive assessment practices within the MBChB programme. Dr Urquhart champions emotions-based approaches encouraging transparent and honest communication between students and faculty.

References:
Family Resources Survey: financial year 2021 to 2022 - GOV.UK (www.gov.uk)

Workshop 60

Tracing the Sociomaterial Entanglements of Simulation

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Background

A rich, interconnected, sociomaterial world exists within healthcare education ecosystems¹. Yet simulation-based education (SBE) is sometimes seen as an adjunct to existing curricula, with discussions focusing on methods and technologies. Therefore, we aim to shed new light on the sociomaterial entanglements of SBE. Entangled Pedagogy² offers a lens for examining the complex interplay of elements in educational settings. In SBE, learning outcomes, material configurations, social interactions, and pedagogical scripts are interconnected and mutually influential. Entangled pedagogy suggests that simulation cannot be understood by examining these elements in isolation. For instance, the timings, locations, physical set-up, scripted scenarios, roles adopted by participants, and intended learning outcomes all interact in ways that, together, shape learning experiences. Simulations are not separate spaces where material, social, and educational factors can be controlled and guided (e.g. through psychological safety, fidelity, structured debriefing, etc.). Applying entangled pedagogy to SBE can generate insights into how elements come together to create simultaneously constrained and emergent, scripted and improvised learning experiences.

Description

In this workshop, participants will use innovative methods to explore and discuss entanglements within a simulation session, then discuss new possibilities for the configuration of simulation within wider curricula and educational ecosystems. Facilitators will present the Entangled Pedagogy framework and its application in our research ~30 mins-then- In small groups, participants will use artefacts and storyboards to “trace” sociomaterial entanglements in an example simulation ~30 mins-then- The wider group will share ideas, uncertainties and questions for future research and practice ~30 mins.

Learning Objectives

By the end of this session, attendees will be able to: Discuss sociomaterial entanglements in simulation-based education (and leave behind all the things you thought made simulation predictable). Critically reflect on various 'entanglements' (the weird stuff you couldn't have predicted) around your everyday simulation sessions - and what this means for your simulation design practices.

Summary

The presenters are academics and simulation educators experienced in facilitating interactive and engaging workshops at international conferences, and publishing education and SBE research. All healthcare professionals or students are welcome to attend, and we can facilitate up to 40 participants maximum, at any level of experience to help generate robust discussion.

References:

1. Fenwick T, Dahlgren MA. Towards socio, material approaches in simulation, based education: lessons from complexity theory. *Medical Education*. 49(4):359-67.
2. Fawns, T. An Entangled Pedagogy: Looking Beyond the Pedagogy, Technology Dichotomy. *Postdigital Science and Education* 4, 711-728 (2022).

Oral 61

The role of the supervisor in self-regulated learning in the clinical environment

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Self-regulated learning (SRL) in medical education is important for successful learning and safe patient care. However, supervisors may be unaware of behaviours that explicitly facilitate or inhibit their students' or residents' SRL, therefore we conducted a systematic review of the literature to explore the role of the supervisor in SRL in clinical environments. (This has now been accepted for publication as BEME Guide no 89 - in press). A qualitative systematic review using meta-aggregation was performed, seeking to draw on the knowledge of included studies and the participants those studies represent to create context-rich recommendations that are relevant and applicable to practice. Categories were developed from individual findings and then synthesised in the form of guidance. Twenty-two studies were included. Six categories were developed. A supervisor who facilitates SRL is: adaptive, engaged and supportive, builds trusting relationships, is knowledgeable, learner-centred, and crafts the architecture of the clinical learning environment. Within the categories, reciprocal trust and dialogue creates a positive cycle of supervisor-learner engagement which facilitates SRL, but due to the power imbalance inherent in the supervisor-learner relationship, the supervisor needs to make the first move. The curriculum has an important role to play in fostering supervisor-learner relationships through enabling relational continuity. Supervisor beliefs about their role, and the architecture of the clinical learning environment can facilitate or inhibit SRL. In this short oral presentation I will draw on some of the review's findings to get delegates to think about how supervisor beliefs, knowledge, skills and behaviours can facilitate or inhibit clinical skill development for learners in clinical environments, and the implications for our own practice and institutions.

Poster 62

Resuscitating new life into CT Radiography training through In-situ Simulation

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Radiographers working in a Computed Tomography (CT) scanning service can sometimes find themselves faced with emergency situations such as a patient developing anaphylaxis following a contrast injection or going into cardiac arrest as a result of their complex presentation to hospital. Early recognition and response is vital to patient survival, so it is important that staff feel equipped with the knowledge and skills to deal with these situations, enabling and empowering them to proactively contribute to the emergency response team and help improve the possibility of a positive outcome for the patient. We came together as simulation specialist and CT specialist Radiology staff, to collaboratively develop a half day in-situ simulation session. We created an activity designed to familiarise staff with the equipment in the emergency trolley, which helped staff feel more confident if they were asked for kit in a high-pressure situation. We ran two simulation scenarios, each followed by a debrief discussion. Using a high fidelity mannikin and conducting the simulation in the CT scanning room meant we were able to make the scenarios as realistic as possible, and this created an immersive experience that the Radiology staff enthusiastically engaged with. We have run the sessions four times with a total of 30 members of staff. Early review of the programme impact has found that those who have attended the sessions now feel more comfortable with an emergency situation in CT, and importantly, have a better understanding of their role within the emergency response team. This continued in-situ simulation programme is important as a consistent update and consolidation of ability and knowledge that will futureproof the effectiveness of our CT team's response to emergency situations. Therefore, maintaining safe practice and continued high quality care for our service users. This poster will be of interest to anyone wanting to run simulation scenarios with Radiographers and those with an interest in in-situ simulation.

Workshop 63

Cognitive load theory: what every teacher needs to know

Nicola Cooper

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Cognitive load theory (CLT) is a representation about how memory works, and provides a basis for instructional design in order to optimise the learning process. CLT is supported by a large number of empirical studies and was described by UK educationalist Dylan Williams as, 'The single most important thing for teachers to know.' However, recent research (in press) shows that most medical teachers do not incorporate cognitive load theory into their instructional design. This means that learning is less efficient - and this has important implications for medical education in general as well as student wellbeing. This workshop aims to introduce CLT to clinical educators and explore the implications for their own practice and their own institutions. The objectives are:

- 1) to introduce and explain CLT;
 - 2) to provide practical examples of how CLT applies to instructional design, skills teaching, and the curriculum;
 - 3) to discuss and explore together what this means for our own practice and institutions.
- The workshop is aimed at clinical educators who have not been introduced to CLT in any detail previously.

The workshop will be led by Professor Nicola Cooper, physician and course director of the PGCert/PGDip/MMedSci in Medical Education at the University of Nottingham, UK. As well as teaching on the MMedSci, Nicola regularly runs workshops around the UK on a range of education topics, and runs a staff development programme for clinical teachers.

Reference:
<https://doi.org/10.3109/0142159X.2014.889290>

Workshop 64

How medical education is getting it wrong about neurodiversity, and what we can do about it

Eleanor Hothersall-Davies, Susan Munroe, Laura Sutherland, Joanne Sloan

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Neurodiversity seems to be increasing rapidly within medical education, for example declarations of specific learning disabilities at application to medical school have risen by over 300% in the last 15 years (Murphy, Dowell & Smith. [bmjopen-2021-059179](#)). However, many of the skills and abilities that are valued in a medical career are highly developed in many neurodiverse individuals. Indeed, medical school selection processes may actively select for these traits. Furthermore, reflection on your own experiences and teams will make it clear that neurodiversity has always been highly prevalent within medicine. In some ways, the difference lies in the labels we attach to people, and in the expectation of support and adjustments we might make. This workshop will explore the world of neurodiversity from a supportive stance: identifying the strengths of these learners. We will outline adjustments that can be made to curricula and learning sessions which bring benefit to all students, commonly called “inclusive curriculum”. This session will also explore the sometimes challenging world of reasonable adjustments, in learning and in assessment, and consider how this can be used to strengthen programs.

Structure

Introductions and identifying key priorities of participants; Outline of neurodiversity and changes in medical education; Group exercise - learner vignettes and needs; Presentation - introduction to the inclusive curriculum; Group exercise - Meeting needs in inclusive ways; Starting a plan and wrap up.

Workshop objectives

At the end of this workshop you will

1. Be able to describe the changing patterns of neurodiversity in medical education
2. Outline the impact of neurodiversity on learners in medical education
3. Understand what is meant by reasonable adjustments in teaching and assessment
4. Understand what is meant by an “inclusive curriculum”
5. Begin to develop an action plan to increase the inclusivity of your teaching and curriculum.

Intended audience

Any learners or teachers
Instructors: Professor Ellie Hothersall-Davies is Head of Undergraduate Medicine and has extensive experience running

workshops including ones relating to equality and diversity, professionalism, and assessment. The other presenters are senior members of medical schools management at University of Dundee, including a child psychiatrist, and a member of the student support team who specialises in neurodiversity. All have delivered workshops in similar topics in the past.

Maximum number of participants in the proposed workshop

No maximum.

Oral 65

Evaluating the impact on clinical practice of a simulated on-call for final year medical students

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The transition from undergraduate medical student to working doctor is recognised as posing significant challenge, and improving preparedness for practice is key. In particular, on-call or out of hours work can be a daunting prospect for students. To improve preparedness, a standardised simulated on-call session was developed by Manchester Medical School to enable exposure to common on-call scenarios, aiming to improve confidence and promote safe practice for final year medical students. The half-day, immersive simulation session covered clinical aspects, prescribing, and skills such as handover, prioritisation, communication, multidisciplinary teamworking, escalating care and documentation. A simulated ward environment was created using high fidelity equipment, specifically developed electronic health records, simulated patients and interdisciplinary healthcare workers. The session involved bespoke pre-brief and debrief, including further reading and support. Preliminary results of the simulation session have previously been presented (1) with students reporting increased confidence and high perceived value of the session. However, this early work focused up to Kirkpatrick Level 2 evaluation, exploring student reactions and learning following the simulation session. To further evaluate the actual impact of the simulated on-call session on clinical practice, focus groups are being conducted to explore behavioural change amongst working foundation year 1 doctors who attended the simulated on-call session as final year undergraduate students. This study therefore represents a Kirkpatrick Level 3 evaluation of the simulation intervention. Not only will this study contribute to the understanding and development of further resources based specifically on learner needs and experience, but also contributes to the paucity of evidence available demonstrating the impact of simulation at higher levels of evaluation (2). The results of the qualitative study, including learning points and future development, will be presented.

References:

1. Shackley, E. Wilson, K. 2023. Moving away from mannequins: Simulating 'on-call' as part of final preparations for practice. [Poster] 9th International Clinical Skills Conference, Prato, 21st-24th May. 2. Priest, S., Wells, L., Huszka, H. et al. Preparing clinicians for practice: effectiveness and design of on-call simulation. BMC Med Educ 24, 623 (2024). <https://doi.org/10.1186/s12909-024-05495-y>

Poster 66

Intraosseous access: Easy once you know the drill!

Gillian Winter, James Beavis

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Introduction

Medical students receive limited teaching in trauma skills and courses teaching intraosseous access (IO) are postgraduate. IO access provides a quick method of access that has a low failure rate. Our aim was to teach medical students IO access in a single session, assess their success and confidence and determine if these attributes are retained over time.

Methods

Small groups of 4th year medical students completed a pre-session questionnaire assessing their knowledge and experience of IO access. A short lecture was delivered followed by a practical session. At the end of the session a further questionnaire was undertaken to assess knowledge and confidence. Students were then invited back for reassessment to see if the skill had been retained and a repeat questionnaire performed.

Results

101 students undertook training with 100% gaining successful IO access. 91.9% of participants agreed or strongly agreed they would be confident to attempt IO access in a clinical setting immediately after training. 49 participants were reassessed over a range of 16 to 347 days. 100% of reassessed participants successfully gained IO access and 95.9% of participants agreed or strongly agreed they would be confident to attempt IO access in a clinical setting. Knowledge depreciated slightly with time.

Discussion

There have been limited studies looking at teaching medical students IO access. This study has shown that the skill can be taught to senior medical students and retained. Further re-assessment over a longer time period would be beneficial.

Workshop 67

Creating and delivering sexual harassment training for healthcare students - facilitators and barriers

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Aim

To enable participants to blueprint evidence-based training on sexual harassment and to create resources for their own institutions.

Objectives

Understand the literature and evidence on the impact of sexual harassment in healthcare. Understand the characteristics of perpetrators and organizational facilitators. Creating psychological safety for learners and frameworks for facilitating 'difficult' conversations around sexism and sexual violence. Facilitate role-play-based practice of allyship and active bystanding to sexual harassment. Understand the role of debrief and training evaluation in participant safety.

Background

Sexual misconduct and violence are recurrent and widespread across healthcare systems[1]. The UK has been no exception to this [2]. The majority of incidents go unreported. Impacts include those on mental health and effects on exams and career choices. The BMA Medical Students' committee have called for training to address it [3]. In our own institution, students have highlighted the impact of sexual harassment and requested we address it. Together we will define sexual harassment, who it impacts, cues to identifying sexual harassment, thresholds for intervention [4], and how healthcare staff can support students, colleagues and patient. Using time-out and audience comment, participation, and feedback, we will identify cues and thresholds to intervention. We will also explore perceived immediate and long-term barriers to being an active bystander, and the role of the group and healthcare organisations in facilitating a culture of 'mutual surveillance'. While discussing and demonstrating the 5Ds model of active bystanding, we will also include a 6th D - discussion of the issues, why this issue persists despite the distress it causes and how we can build trust with those affected. Active participation in any scenarios will be on a completely voluntary basis.

Plan

This workshop will aim to equip healthcare educators, and their students, with tools to discuss and reflect on sexual misconduct and sexual violence. The workshop will be facilitated in small groups with activities and opportunities to share knowledge and experience across international and interprofessional groups. These activities will give participants an opportunity to practice what can be a difficult conversation. This will enable participants to transfer skills to their institutions to support faculty and students in acting more often on this issue. We are co-creators of the Nottingham Clinical Active Bystander project and have presented internationally and nationally on this topic. We are developing a MOOC in allyship and active bystanding in healthcare for FutureLearn.

References:

Begeny CT, Arshad H, Cumming T, Dhariwal DK, Fisher RA, Franklin MD, et al. Sexual harassment, sexual assault and rape by colleagues in the surgical workforce, and how women and men are living different realities: observational study using NHS population-derived weights. *Br J Surg*. 2023;110(11):1518-26. Miller N, Frain J. Rapid Response: Systematic sexism and sexual violence harm doctors' pay and career chances, report finds. *BMJ Online*. 2023;383:p2744. Brill D. Medical students stand up to sexual harassment *BMJ* 2016; 354 :i4430. Pina A, Gannon TA, Saunders B. An overview of the literature on sexual harassment: Perpetrator, theory and treatment issues. *Aggression and Violent Behavior* (2009) 14: 126-138.

Oral 68

The Impact of Peer-Led Simulation-Based Medical Education on Knowledge and Confidence in Managing Acute Patients: A Study Among Pre-Clinical Medical Students

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Background

Early identification and management of acutely ill patients are crucial to improving patient outcomes. Pre-clinical medical students often feel unprepared due to limited hands-on experience and training in emergency scenarios. Traditional medical education lacks opportunities for students to actively engage with acute patient management in a controlled, hands-on setting. Simulation-based medical education (SBME) addresses this gap by providing a safe, structured environment for practicing key skills. This study evaluates the impact of a peer-led SBME session on knowledge and confidence in managing acute illness among pre-clinical medical students.

Methods

A peer-led "Systematic Approach for the Acutely Ill Patient" (SAAP) course was delivered to 70 pre-clinical students across six sessions. The course focused on recognition, assessment, and management of acutely ill patients. Pre- and post-intervention knowledge and confidence were measured using tests and questionnaires. Knowledge was analysed with a paired t-test, and confidence scores were evaluated using the Wilcoxon signed-rank test.

Results

Knowledge scores significantly improved post-SBME (Y1+Y2: 20.36 \pm 3.27 to 22.17 \pm 3.19, $p<0.001$). Confidence in key clinical skills also showed statistically significant gains in several areas, including performing baseline observations (4.01 \pm 0.67 to 4.24 \pm 0.69, $p=0.008$), completing NEWS charts (4.06 \pm 0.98 to 4.40 \pm 0.60, $p=0.006$), and managing breathing difficulties (3.46 \pm 0.85 to 3.91 \pm 0.74, $p<0.001$). Despite confidence in managing sepsis ($p=0.097$) and performing A to E assessments ($p=0.180$) not showing significant improvement, overall confidence in acute care management increased (3.46 \pm 0.76 to 3.86 \pm 0.77, $p<0.001$).

Conclusion

This study demonstrates that peer-led SBME significantly improves knowledge and confidence in managing acute patients among pre-clinical students. The SBME model offers a valuable addition to medical curricula, enhancing key clinical skills in a controlled environment. The peer-led approach fostered a supportive learning atmosphere, increasing student engagement and comfort. Future research should explore long-term skill retention and the potential for integrating more frequent SBME sessions, ultimately promoting preparedness for real-world clinical practice in acute care settings.

Oral 69

Use of pilot simulations to develop faculties' skills in bias and discrimination conversations

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Faculty members are often expected to navigate challenging discussions surrounding bias, discrimination, and racism without adequate training. These sensitive conversations require both skill and courage to address systemic bias and discrimination. Faculty also reflect and explore their biases and how they could impact their ability to engage and facilitate those conversations. In saying this, we have yet to develop resources for faculty to support them in facilitating those challenging situations. While we have not created a formal resource for faculty, we have utilized the simulation pilot scenarios as a form of faculty development. The simulation pilots enabled us to provide focused learning in a small group setting. The DEI simulation pilots offered them the ability to not only understand the learner's experience but also to explore their own biases. This short presentation will explore our experience supporting faculty during DEI simulation pilots. We will share the challenges and successes we have experienced in delivering the pilot simulations. We will also discuss feedback from faculty engaged in the pilots and how we have used that to shape the development of a workshop for faculty to support them in effectively engaging in conversations about bias, discrimination, and racism with their learners in various educational settings.

Oral 70

Advancing Prescribing Education in the University of Manchester Undergraduate Programme

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Integration of prescribing education into undergraduate curricula has evolved significantly over the past decade. Current educational models emphasise competency-based learning. A pivotal component of this evolution is the UK Prescribing Safety Assessment (PSA) (Maxwell et al., 2017). According to an independent review, the PSA has significantly improved prescribing competencies and confidence among medical students, highlighting its critical role in medical education (Prescribing Safety Assessment Review, 2024) by using an electronic prescribing system (EPS). Recent research indicates that while most medical and pharmacy programs have adopted EPS in their teaching, depth of integration varies widely (Donyai et al., 2020). Although many EPS systems are in use in the clinical environment, there is a lack of realistic EPS platforms that have an education focus. Many barriers exist including the complex nature of the systems, ability to populate with appropriate cases, user digital literacy and system audit. Until 2020 University of Manchester (UoM) has employed the use of standardised paper prescription charts, allowing students to handwrite prescriptions in teaching and assessment. To bridge this gap, the British Pharmacological Society (BPS) and UoM collaborated to design an EPS platform that allows users access to a managed drugbank and formative feedback with an author defined mark scheme. Students are presented with case vignettes and asked to complete a single prescribing outcome. Results from the UK PSA for UOM students indicate that digital prescribing and overall prescribing competencies improved with the introduction of the EPS (1st sitting pass rate increase from 85.9%, 2020 to 95.4%, 2021). The platform has been developed to present complex cases and outcomes representative of current clinical practice, allowing users to add, amend and suspend prescribed treatments. We feel that the future of prescribing education requires technology-driven learning environments that better mirror clinical practice. The platform allows this to become a reality.

Workshop 71

Next generation of ePrescribing: A new digital prescribing platform designed specifically for healthcare education

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Competent prescribing is vital for newly qualified healthcare professionals, including junior doctors and non-medical prescribers. With the widespread adoption of electronic prescribing systems (EPS) in healthcare, it is essential for students to be proficient in the use of these technologies. Clinicians using EPS commonly modify treatment regimens through the addition, amendment, and suspension of prescribed treatments to tailor an appropriate treatment plan for the patient concerned. This workshop focusses on integrating these more complex EPS skills into undergraduate healthcare programmes, enhancing the teaching, learning, and assessment of prescribing practice. To ensure a minimum standard of competency, all UK final-year undergraduate medical students undertake the Prescribing Safety Assessment, a national examination over 2 hours requiring completion of electronic prescriptions. Students consider case vignettes and prescribe single items in response, demonstrating their degree of prescribing competence. Case vignettes are presented on an online prescribing assessment platform, hosted by the British Pharmacological Society (BPS). Analysis of prescribed item use shows that UK patients are often prescribed 5 or more items (Zhang et al., 2015). Current teaching and assessment practice commonly focuses on single-item interventions, not allowing for complex medication management that is the reality of practice. Collaborative work between the BPS and University of Manchester (UoM) has built on features available in the UKPSA platform to offer greater flexibility and accurate representation of real-world practices. New functions, such as modification or suspension of prescribed items and the prescribing of multiple items, allow more realistic simulation of common tasks undertaken by clinicians. The platform provides an experience with a greater degree of fidelity to systems used in clinical practice. The new features allow opportunities for students to demonstrate deeper clinical reasoning. Students can be asked to make multiple decisions in response to case vignettes presented. This brings in

additional elements to their learning that focused reasoning and a narrow narrative may not be able to, such as scope for discussions about prioritisation, overall management of multi-morbidity, and justification of choices. Participants will explore and discuss the integration of EPS into their curricula, mindful of the intricacies of real-life prescribing practice and what it is possible to emulate in university classrooms or seminar teaching. They will gain hands-on experience of creating content and assessments using the new tools within the BPS platform and UoM resources, supporting practical engagement in learning to improve skill acquisition and retention.

Poster 72

Final Year Medical Students Simulated On-Call Programme: Can Simulation-Based Education Build Resilience in Junior Doctors?

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Background

The transition from final year medical student to practising doctor presents significant challenges, with physician populations experiencing notably high stress levels. Resilience has been recognised as a key protective factor against burnout, making it a topic of interest in medical education.

Method

Junior doctors led a six-week teaching programme involving four tutorials addressing tasks encountered after-hours, a simulated shift and concluding debrief. Data were collected over two cycles (10/23-11/23 and 02/24-03/24) with 27 participants. Quantitative data were gathered through pre- and post-programme surveys, utilising Likert scales to assess self-reported confidence, and CD-RISC 10 to measure resilience, with analyses conducted using paired t-tests. Additionally, pre- and post-programme focus group data were collected and thematically analysed.

Results

There was a statistically significant increase in confidence 4.9/10 to 7.4/10 ($p = <0.0001$) and CD-RISC 10 from 36.5 /50 to 39.7 /50 ($p = 0.0003$). Qualitative data identified the themes of the value of practical application of theoretical knowledge, near-peer teaching, improved self-reported confidence and resourcefulness. The programme was well received by participants, who described it as useful and enjoyable.

Conclusion

Simulation-based education and near-peer learning offer valuable opportunities to build confidence and resilience in final year medical students as they prepare to enter the workforce.

Poster 73

Usability and Global Reach of a 'Just-in-Time' Clinical Skills App for Medical Student Education

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Background

Adjunctive methods of delivering medical student education are increasingly utilised to enhance procedural skill competencies. A 'Just-in-Time Training' (JITT) smartphone application (app) was developed as a real-time resource for medical students to access in the clinical setting. The app was made available on the global app stores, with downloads and daily users recorded.

Methods

App content was developed at the University of Otago Christchurch [New Zealand], Simulation Centre. Content [based on taught undergraduate programme] includes checklists, and photo/video guides for 19 clinical procedures. The app was made available open-source [iOS: May-2017, Android: July-2019] and international downloads tracked from inception, with breakdown by country since 2023. Usability was assessed using the System Usability Scale by 100 NZ-based medical students, scores $>73/100$ represent good usability.

Results

In July-2023 there were 7437 global users from 54 countries, mainly China [37%], NZ [23%], and United States (US) [11%]. In July-2024 downloads had increased by 104% to 15,193 users from 155 countries, mainly NZ [22%], China [18%] and US [10%]. The cumulative active daily users between July-2017 and July-2024 were 706,607. Usability of the app scored 74/100 in 2022, increasing to 80/100 in 2023.

Conclusion

The JITT Clinical Skills app is popular globally, with increasing downloads suggesting it is a popular learning tool to supplement clinical skills teaching.

Oral 74

Learning to reason like a doctor: An empirical examination of novice physicians' sensemaking in the clinical context

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In their everyday medical practice, physicians are called to address diverse problems encountered by their patients, make educated decisions, and take appropriate action. Clinical reasoning embodies all these thinking and decision-making processes. It is hardly then surprising that there is an abundance of literature in the field. Yet, there is an alarming paucity of research addressing how novice physicians learn to reason at the workplace. In Prato 2023 we presented a conceptual learning model of how medical students learn to reason in the clinical environment.¹ At the core of the model lie three interdependent processes. Framing the situation is the process whereby students discern salient situational elements, place them into a meaningful relationship and integrate them into a clinical problem. Inquiring into the situation is the process whereby students gain further insight into the situation by determining which questions need to be asked. Taking meaningful action is the process whereby students carve out a pathway of action, appropriate for the circumstances. The current project builds on this work but shifts the focus from medical students to novice physicians and how they make sense of the clinical patient encounter. It seeks to provide an explanatory frame of how clinical reasoning is learned that may guide curriculum design. Constructivist grounded-theory methodology was previously employed to develop the model. The current project will also use the same methodology. Fifteen novice physicians will be recruited in a Swedish regional hospital. Data will be collected from semi-structured interviews, participant observations and field-interviews. The semi-structured interviews aim to stimulate the participants' verbal accounts of clinical patient-encounters. Participants will be observed during their encounters with patients presenting at the ED. A brief field interview with each participant will be conducted directly after the patient encounter to provide insight into the participants' immediate interpretations of the clinical encounter.

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Oral 75

Exploration of how surgeons manage emotions and employ empathy in clinical settings: a constructivist grounded theory study of Australian general surgeons

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Emotions are key factors in surgical disease and treatment, both in the surgeon and in the patient. Despite the recognition of the value of clinician empathy (1), quantitative studies have shown that surgeons have lower empathy scores than other specialities (2-4). The reason for this is unclear, and little is known about how surgeons manage emotions in clinical settings. This study explored the role of empathy in surgical treatment and how surgeons see patients' emotions.

Methods

We used an exploratory qualitative study in the Constructivist Grounded Theory tradition, utilising online individual semi-structured interviews with fourteen general surgeons.

Results

Surgeons described five discrete approaches to patients' emotions, which could be grouped into emotion facing and emotion avoidant approaches. Participants were conscious of modulating their emotional response to patients depending on need, and systemic factors like urgency and setting. While the approach used was often tailored to the situation, surgeons usually had a preferred style. The degree of emotional engagement was particularly influenced by time available, and urgency. Participants described some techniques to influence the degree of emotional involvement, primarily by altering consultation times.

Conclusions

The management of emotions by surgeons is nuanced and affected by contextual factors. However, surgeons use discrete approaches to manage, resolve or avoid patient emotions. These approaches can be unconscious, but opportunities can be created or limited by the surgeon as required to facilitate effective treatment. The results offer a new perspective on surgeon empathy in the context of the limited existing literature.

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Oral 76

Surgeons' roles and tasks and their effect on empathy: a Constructivist Grounded Theory study of general surgeons in Australia

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Emotions are key factors in surgical disease and treatment, both in the surgeon and in the patient. Despite the recognition of the value of clinician empathy (1), quantitative studies have shown that surgeons have lower empathy scores than other specialities (2-3). The reason for this is unclear, and little is known about how surgeons manage emotions in clinical settings. This study explored the role of empathy in surgical treatment and how clinical context and task could affect management of patient emotions.

Methods

We used an exploratory qualitative study in the Constructivist Grounded Theory tradition, utilising online individual semi-structured interviews with fourteen general surgeons in Australia.

Results

Physical context or location was not shown to be a valuable predictor of surgeons' approach to patient emotions. Surgeons described phases and tasks in a treatment encounter that impacted the surgeons' approach to the patients and engagement with emotions. The first four phases were delivering information, making a decision, performing a technical task and dealing with outcomes. A final phase of resolving the clinicians' own emotional stress was also identified. Each phase had a primary focus on relationships, reasoning or resource management. As surgeons worked through encounters with, switching focus from relationship to reasoning focussed tasks would affect their communication approach and how focussed they would be on emotional issues.

Conclusions

The management of emotions by surgeons is nuanced and affected by contextual factors. Surgeons switch communication and cognitive focus as a clinical treatment relationship progresses, and this impacts their relationship with patients. The results offer a new perspective on surgeon empathy in the context of the limited existing literature.

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Oral 77

Exploring challenges and considerations with integrating non-technical and technical skills in teaching and learning: Realist Review

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Background

Technical (TS) and non-technical skills (NTS) are often taught in isolation but typically required simultaneously in clinical practice. The role of NTS is increasingly recognised, but there remains gaps in our understanding of how to teach TS and NTS in health professions education (HPE). Furthermore, the practical challenges, interplay and considerations that arise in learning TS and NTS together remain underexplored. The objective was to use a realist review approach to further develop existing program theories of relevance to the integrated teaching of TS and NTS.

Methods

A realist review methodology was conducted using Pawson's approach, and initial program theories were selected. A librarian assisted in a comprehensive search for relevant articles, including Embase, Emcare, Proquest, Medline, and APA PsychInfo. Literature outputs were screened against a priori inclusion and exclusion criteria and assessed for rigour and relevance. Eligible articles were appraised using the Mixed Methods Appraisal Tool (MMAT). Included studies were extracted, tabulated into a context-mechanism-outcome configuration (CMOC), and analysed by the team using retroduction (abductive reasoning).

Results

From 2,878 papers screened, 301 full texts were assessed. 62 met the inclusion criteria for analysis. We observed that NTS and TS appear 'mutually inclusive' and should therefore be approached in an integrated fashion. Combining TS and NTS in curricula was found to be helpful and hindering, depending on context. Successful integration was frequently underpinned by a multi-modal or stepwise approach. Studies indicated improved performance with structured training incorporating TS and NTS. However, the relationship can be complex, sometimes enhancing NTS at the expense of technical performance. Factors to consider in planning an integrated curriculum include use of flipped-classrooms, cognitive load, stress, and experience-level, all of which influence the NTS and TS dynamic.

Conclusions

Integrating non-technical and technical skills in HPE requires a mutually inclusive approach considering context, cognitive load, learner experience, and educational methods.

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Oral 78

Developing the Future Interprofessional Workforce - Skills for Collaborative Practice in the Workplace

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Introduction/Background

Working collaboratively within an interprofessional team requires complex skills developed over time in clinical environments. These skills can be learnt through formal interprofessional learning activities (including simulation) but require workplace experience to be consolidated¹. However, literature indicates² a lack of opportunities for students to undertake interprofessional workplace learning to consolidate collaborative practice. This paper presents findings from evaluation of a new workplace learning opportunity that utilises the “organic” opportunities on ward and community placements to develop the skills for collaborative practice.

Intervention

A new interprofessional workplace learning opportunity has been embedded in the University of Otago, Christchurch curriculum for medical students and physiotherapy students in 2024. Students are tasked with approaching and organising to spend time with students or clinicians from two professions including medicine, nursing, physiotherapy, pharmacy, speech language therapy. Guidance is provided for those taking part and students then undertake reflective writing in their portfolio.

Evaluation

The Haji et al (2013) research evaluation framework³ has allowed us to track the implementation of the project. This emergent framework uses a mixed methods approach requiring data collection before, during, and after the first year of implementation including student surveys and focus groups, interviews with clinicians, and analysis of teaching staff meetings and reflections.

Discussion

Data collection commenced from planning in 2023 and feedback to date has been used to refine and reinforce aspects of the project and track a positive trend in student experience.

This workplace initiative enables ward-based educators to engage students in the naturally occurring collaborative practice opportunities, with processes and tools developed to support learners and educators. Findings from the evaluation of this project are being used to develop a generic interprofessional workplace learning tool kit for widespread implementation in other clinical settings, with consideration of how to formally assess skills of collaborative practice

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Oral 79

"I wish someone had told me this years ago": Demystifying the professional transition from trainee to consultant in intensive care medicine

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Embedded in the theme "Past, Present and Future" are concepts of transition and of journeys with uncertain destinations. Progressing through training from senior registrar to new consultant is an exciting and challenging time that exemplifies these concepts. This oral presentation focusses on initiatives aimed to prepare and support intensive care registrars through this period. It is consistently reported in the literature that doctors at the end of training, and new consultants, feel well prepared clinically but under prepared for non-clinical responsibilities and opportunities (Flavell et al. 2020, Westerman et. al. 2013). End of training is a time when success can no longer be defined by meeting externally imposed goals. It is argued that to thrive as a new consultant the true scope of professionalism needs to be made plain.

This is often described as the 'hidden curriculum'. We discuss moving beyond a concept of professionalism as externally judged competence and skills to professionalism as an authentic, values-based attribute. We present here two initiatives aimed to aid in the development of skills that promote effective professional and personal growth into consultant life. Firstly, we discuss the role of mentoring. We describe a regional mentoring programme for intensive care trainees based in Auckland, New Zealand. This aims to encourage reflection, model and develop a culture of support, promote conversations that aid in the identification and achievement of goals that are professionally relevant and personally meaningful, and foster effective work relationships.

Secondly, we present our experience of facilitating a two-day course that challenges young doctors in intensive care in Australia and New Zealand to consider their future careers holistically. They are challenged to consider themselves not purely as a "hands-on" doctor. The course has the theme of progression woven through sessions on choosing where to work, designing a non-clinical portfolio that continues to build and inspire professional development and building habits that promote wellbeing and sustainable careers.

We believe this model would be widely applicable to all health care professionals as they transition through their past, present, and future careers.

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Poster 80

Improving the Management of the Endotracheal Tube in the Paediatric Intensive Care Unit: How Inter-Professional Education (IPE) Can Be used to Enhance Competence and Confidence

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Background (The Problem)

An endotracheal tube (ETT) provides an effective airway for critically ill children in the Paediatric Intensive Care Unit (PICU) who require invasive ventilation. However, dislodgement or accidental removal can have a significant impact on the care we deliver¹. Our incident reporting system indicated this is a recurring problem in our PICU, highlighting the need to deliver an educational intervention to improve outcomes.

Methods (What was done)

A team from the PICU in Oxford, delivered an IPE session where strapping of the ETT was the key educational component². The session included a tutorial reviewing unit guidance; a video on how to securely strap an ETT; and a practical skills workshop with one-to-one tutor guidance.

Results (Evaluation)

30 healthcare professionals participated in the educational intervention over a 1-month period. They completed an Objective Structured Clinical Examination (OSCE) derived from unit guidelines pre- and post- IPE session^{3,4}. Significant improvements in OSCE scores were demonstrated by the most junior nursing and medical staff who had little prior experience with strapping ETTs. feedback questionnaire highlighted increased competence and confidence across several key themes.

Conclusion (Why the work is important)

This IPE session is being utilised as a template for teaching ETT safety and is being prioritised for doctors and nurses who are new to the PICU.

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Oral 81

Exploring the effects of simulation-based team training on healthcare working conditions

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Background

Workforce shortages, increased workloads, and higher patient demands are placing immense strain on healthcare systems, leading to challenging working conditions [1]. Simulation-based team training replicates real-life clinical scenarios, allowing healthcare professionals to practice and refine their skills in a safe environment [2]. Traditionally used to enhance clinical skills and teamwork, we aim to explore whether simulation-based team training can also improve working conditions. By investigating patient safety culture and staff sick leave, our study will examine the impact of this large-scale intervention in pediatric departments.

Methods

Four pediatric departments participated in a one-year intervention with intensified simulation training, while four control departments used standard simulation [3]. All simulation activities were recorded. Two assessments were conducted: Analysis 1 used the Safety Attitude Questionnaire to measure patient safety culture before and after the intervention. Analysis 2 compared sick leave data from pre- (April 2022 - April 2023) and during intervention (April 2023 - April 2024) periods. Difference-in-difference t-tests were used to compare changes between the intervention and control groups.

Results

Over one year, 244 simulations were conducted in the intervention group compared to 84 in the control group. In Analysis 1, 1,412 questionnaires were completed, and showed greater improvements in safety attitude dimensions in the intervention group. Statistically significant differences in difference were observed within the Teamwork climate (2.62%, 95% CI: 0.10;5.14) and Working conditions (3.33%, 95% CI: 0.3;6.4). In Analysis 2, sick leave increased by 0.43%, $p = 0.25$ in the intervention group ($n=469$), whereas a larger and statistically significant increase equal to 0.97%, $p = 0.01$ was observed in the control group ($n=805$).

Conclusion

Following intensified simulation training, patient safety culture improved, and sick leave increased more in the control group than in the intervention group, suggesting a protective effect. Policymakers should consider working conditions when evaluating the benefits of simulation-based team training.

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Poster 82

Paediatric simulation: Where have we come from, how are we doing and where are we going?

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Introduction

Prior to 2016, the Royal Aberdeen Children's Hospital (RACH) had no formal simulation programme. Sporadic sessions were offered to paediatric trainees with no opportunity to undertake multidisciplinary team (MDT) training. Our aim was to introduce a regular simulation programme which was accessible to all hospital staff.

Methods

A pre-programme questionnaire established what our workforce felt about simulation. 89% wished to participate in simulation with 91% feeling that simulation would give them more confidence when encountering a sick patient. 93% felt simulation training was important in promoting good teamwork. Following this fortnightly MDT sessions were established run by a team of facilitators with feedback obtained from participants.

Results

544 participants attended including 256 doctors, 170 trained nurses, 82 student nurses, 20 medical students and 16 allied health professionals. 100% of participants found the session useful. 96% felt more confident in dealing with the condition in real life with 98% feeling that the material covered in the scenario was relevant. All asked for further sessions. Since conception we have run a total of 117 sessions and have increased our pool of scenarios.

Discussion

We have successfully sustained a MDT simulation program in RACH. Feedback has been exceptionally positive. Due to clinical pressures our faculty members now consist of one paediatric surgeon and two nurse educators. Going forward we will continue to run our fortnightly MDT sessions, create a bespoke paediatric trainee course to address competencies and start impromptu in situ sessions to ensure the needs of all our workforce are met.

Poster 83

Virtual Reality: Elevating Agitation Management Skills in Healthcare Students

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Background

Virtual reality (VR) is increasingly being used in medical education as an innovative tool to enhance student learning. VR allows students to immerse themselves in realistic, interactive environments where they can practice clinical procedures or patient interactions. Studies have shown that VR can improve knowledge retention, procedural accuracy, and individual confidence.

Aim

The aim of our study was to assess the benefits of VR in teaching undergraduate healthcare students how to manage agitated patients.

Methods

Participants included final-year undergraduate medical students from the Joint Medical Program (University of Newcastle and University of New England) and undergraduate nursing students from the Central Coast Nursing Program. Invitations were sent via posters and emails. The workshop took place at the Gosford Hospital, and participation in pre- and post-workshop surveys was voluntary. The workshop included lectures on situational awareness, risk assessment, communication, and managing aggression, followed by four simulations where VR was used to practise managing agitated patients.

Results & Evaluation

A total of 34 pre-workshop and 32 post-workshop surveys were completed. Participants rated their confidence out of 10, with 10 indicating 'completely confident'. 85.3% had never participated in simulations involving agitated patients before. Post-workshop, participants reported higher confidence in using non-verbal skills (average post: 8.1 vs pre: 6.0) and de-escalating aggression (average post: 7.9 vs pre: 5.7). Improved situational awareness was also reported, and 75% would recommend this teaching method.

Conclusion

VR significantly enhanced students' confidence and skills in managing agitated patients, making it a valuable educational tool for future healthcare professionals.

Poster 84

The Split Technique - A constructivist approach to improving medical student investigation and management plans

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Creating a clear investigation and management plan is a key skill for doctors. This is learned during medical school, particularly during clinical placements; is assessed informally on ward rounds; and examined in Objective Structured Clinical Examinations (OSCEs). Planning can be daunting for students - themes of difficulty include organisation of thoughts; prioritising and confidence ⁽¹⁻³⁾.

To address this, small group case-based tutorials were held for fourth year University of Glasgow Medical Students, designed using themes based on constructivism. In the tutorial, students were introduced to the novel Split Technique planning method. This involves splitting investigation plans into bedside, blood, imaging and special tests; and management plans into conservative, medical and surgical. Free-text feedback demonstrated that the tutorial helped to provide students with a simple, organised planning structure; utilise prior knowledge and consider the appropriateness of investigating in certain clinical scenarios. To further evaluate the effectiveness of the planning method, in the 2024/25 year, students will be invited to participate in the tutorial, with prospective assessment of confidence before and after the session. The practical application of this tool will be analysed with further interval data collection, to determine real-life utility for the students. Results will be available by Conference start

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Round Table Discussion Group 86

Safe, brave, but not overwhelmed. Navigating challenge levels in simulation-based education

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Abstract

A fundamental aspect of simulation design is ensuring that simulation activities are set at an appropriate challenge level for the intended learners, however, this may be contentious to define and difficult to facilitate in the moment¹. A degree of challenge in education is needed for effective learning², however, our conversations and experiences as simulation facilitators have revealed, differences of opinion as to how far to push the boundaries of pressure and challenge, and how best to design, navigate and steer a safe yet challenging simulation. We agree that ensuring educational safety is paramount. The debate is how to navigate the *sweet spot*³ between delivering a lesser challenge and risking reduced engagement and learning and pushing simulation participants from a *healthy to unhealthy tension*⁴ thus creating experiences that generate noxious simulation legacies. Both are suboptimal educational experiences. Recent publications have asserted that simulation creates an environment for pressure testing and performing under pressure⁵, and that as simulation facilitators we can create a safe environment in which stress inoculation can occur and our abilities to perform under pressure can expand⁶. By optimising pressure and challenge as simulation facilitators we can maximise participant engagement and potentially the ability to perform under pressure in clinical practice⁷. The focus of simulation is on the creation of a safe but moreover a *brave space*⁸ for learning, with facilitators supporting this endeavour when the pressures are too high, or stressors are too great. So, please join us in this roundtable to debate how the courageous facilitator can design, brief and facilitate an optimal challenge level in simulation with psychological safety as the utmost priority.

Learning objectives

Discuss the participants experiences and practice of setting challenge level in the design of simulations. Explore current practice in balancing challenge and safety when facilitating simulations. Discuss controversies and consider a consensus for best practice in ensuring psychological safety, to allow for a more courageous approach to challenge setting for learners during simulation. All conference participants (up to 40) are welcome. All presenters are experienced clinicians and simulation facilitators, who regularly deliver interactive conference events.

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Round Table Discussion Group 87

Is the 'P' in 'IPE' problematic? Exploring the impact of profession in interprofessional simulation-based education

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Background

Interprofessional simulation-based education (IP-SBE) offers the potential to enhance interdisciplinary working by enabling learning *with, from and about each other*¹. However, we observe at times troublesome dynamics at play, and rather than the ascendant principle of 'learning' IP-SBE, the atmosphere and behaviours descend into a 'defensiveness' towards, from, and as a result of the other. The importance of one's professional group can dominate IPE conversations, hindering the opportunity for deeper, more impactful interdisciplinary group working². We have observed that SBE sessions based around an established clinical team lack this troublesome dynamic and propose this as an exemplar to achieving the aspirations of IP-SBE without the 'P' getting in the way. Yet our reflections are that professional pride undermines the best intended assertion that "interprofessional learning experiences help prepare health professionals for enhanced team-based care of patients and improved population health outcomes"³. To explore this phenomenon, we will describe and discuss social identity theory⁴ and utilise this lens to explore the impact of one's profession on identity, and its role in observed patterns of behaviour within the IP-SBE context. We invite participants to discuss how belonging to an *in-group* is a strong influence, which at times may undermine, but might also be harnessed, to promote the ambitions of IP-SBE. If IP-SBE sessions could in and of themselves form *in-groups*, not based on professional background, but characteristics, such as the *paediatric clinical team*, then in doing so could attain the aspirations of the IPE community? We invite participants to join us in conversation and bring their perspectives and insights to this contentious topic. In doing so we propose to debate and deepen our collective understanding of this complex social phenomenon and debate strategies to move beyond the boundaries of them versus us² in IP-SBE.

Learning Objectives:

- Reflect on your own experiences of IP-SBE and the idea of 'discipline-defensiveness' (or 'professional-protectiveness')
- Explore your own personal experiences of both 'self' and 'profession' through the lens of Social Identity Theory.
- Discuss to what degree one's professional background *dominates* social identity in IPE and whether this becomes troublesome for effective IP-SBE.
- Debate an alternative approach to consider IP-SBE which stands to mitigate 'identity storming' in learning with, from, and about one another.

All conference participants (up to 40) are welcome. All presenters are experienced clinicians representing different professional groups and are simulation facilitators, who are frequently involved in IPE conversations. We regularly deliver interactive, engaging conference events.

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Oral 88

The Clinical Leadership Development Programme - Cultivating the Next Generation of Healthcare Leaders within a large Scottish Health Board

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Medical education is much more than just teaching doctors-in-training: it's also about allowing them to experience clinical leadership in a safe and supported professional setting. Clinical leadership plays a critical role in improving healthcare, driving innovation, and enhancing patient care. Recognizing the potential of trainees appointed as departmental Chief Residents (CRs), NHS Greater Glasgow & Clyde Medical Education embarked on a novel endeavour to develop its future clinical leaders: the Clinical Leadership Development Programme (CLDP).

The 6-month CLDP pilot in 2023-24 ran with six competitively-appointed CRs. The CLDP involved apprenticeship-like learning from senior clinical leaders, and experiential learning of leadership and professionalism through invitations to Health Board-wide senior management meetings. Participants were supported to undertake leadership projects; attended sessions delivered by clinical and non-clinical leaders across health and social care to expand their understanding of healthcare systems; received a bespoke leadership educational programme including journal and book clubs; and had protected time for professional development.

Feedback from participants was strongly positive, with responses to free-text questionnaires reporting a greater understanding of the structure and complexity of healthcare services, their own leadership style, and careers in clinical leadership. Longitudinal analysis showed increased self-confidence as a leader: median 6.67/10 (range 6-7, mode 7) commencing CLDP, to 7.75/10 (range 7-8, mode 8) at the conclusion. There were notable improvements in 5-point Likert scale responses to domains relating to the understanding of leadership, management, and NHS structures. Participants reported learning leadership and professionalism skills that will benefit them throughout their career, and having an enhanced understanding of careers in clinical leadership.

The Pilot CLDP promoted enhanced involvement and engagement of trainees in the working of the Health Board and provided leadership development opportunities that were valued by the participants. The programme continues to be developed for a second cohort recruited in the 2024/25 academic year.

Poster 89

Enhancing Final Year Anaesthetic Teaching Through Peer Instruction: An Exploratory Study

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Background

Peer instruction (PI), rooted in Vygotsky's theory of constructivism, achieves active learning through peer discussion, promoting critical analysis and deepening understanding [1,2] This study explores student and learner perceptions of PI technique to deliver large-group anaesthetic teaching to final-year medical students.

Methods

Educators are non-consultant hospital doctors (NCHDs) briefed on PI techniques. Neither learner nor educators had prior experience of PI for educational instruction. Sessions incorporated Concept Tests with polling, and group discussions to reinforce key concepts[3]. Feedback from learners and educators was collected using five-point Likert scale questionnaires.

Results

Initial feedback indicates improved student engagement and a positive shift in perceived understanding of anaesthetic topics. NCHDs also reported increased confidence and valued their role in facilitating peer discussions. Early indications of strong support for PI as an engaging teaching method that fosters deeper analysis.

Conclusions

Achieving active learning in large group teaching can be challenging. PI is a novel technique that achieves active engagement among large groups. Preliminary findings suggest that PI is effective in anaesthetic education, benefiting both students and NCHD educators. Larger-scale studies are needed to validate these preliminary findings and further assess its impact.

References:

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Oral 91

Looking back to see the future: Co-designing simulation with consumers to address cognitive bias in healthcare

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Background

Each year adverse events related to health workforce cognitive bias are reported in healthcare. Cognitive bias refers to human beliefs, attitudes, and behaviours which influence automatic thinking and unconscious cognitive processes. These cognitive shortcuts enable swift clinical decision making, however the presence and consequences of cognitive bias in healthcare can contribute to negative outcomes. Targeted education strategies to increase awareness of bias are essential to mitigate its influence on clinical care¹.

Aim

To evaluate the impact of a co-designed interprofessional simulation developed to uncover and address cognitive bias in healthcare. The presentation focuses on phase three of a four-phase research project to embed 'real world' incidents and experiences into health professions education and improve the delivery of safe, high quality, consumer-focused healthcare.

Methods

Using a participatory action research approach, we co-designed a simulation with healthcare consumers and clinicians²⁻³. We then evaluated the impact of four interdisciplinary simulations with clinicians and students through audio-recorded simulation debriefs, transcribed verbatim and analysed using collaborative thematic analysis methods.

Results

Twenty nursing and allied health clinicians and two nursing students participated in the simulations. Six themes were developed: 1) Authentic, meaningful learning experience, 2) Pervasiveness of cognitive bias, 3) Clinicians work that must be done, 4) Duality of physical and mental health, 5) Factors influencing cognitive bias in healthcare, and 6) Clinician strategies to mitigate the impact of cognitive bias.

Conclusion

Placing lived experiences of healthcare consumers at the centre of research and co-design of simulation-based education shifted the focus to a more humanistic dimension⁴. Creating learning opportunities that deliberately challenge health professionals' perceptions of reality and supports honest dialogue about cognitive bias in healthcare resonated with participants. Fostering shared learning experiences to address cognitive bias and implementing strategies to 'call it out' are essential for health professions education.

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Poster 92

Connecting the Dots: Creation of a Longitudinal, Competency-Based, Composite Assessment Program for the Clerkship Year

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In the typical clerkship year, future physicians rotate for discrete blocks of time in individual specialties. This is not ideal for facilitating competency-based clinical skills growth across the year.¹ Rather, this fragmented approach often results in learners who become focused on short-term, rather than long-term goals in the context of disjointed, specialty-specific assessments.

To proactively counter-act this siloed approach to assessment, we are actively developing a competency-based, longitudinal, integrated clinical skills assessment program for implementation in 2025. This one-year program will include the use of standardized, competency-based assessments with a composite reporting system. We are adopting the Association of American Medical College (AAMC)'s foundational competencies cross-referenced with core entrustable professional activities to facilitate a shared mental model.² Learners will be assessed at the competency level (for example, Clinical Care). Each specialty-specific clerkship's input will feed into a composite report. Throughout the year, this iterative report will be used by students and their advisors to track progress and help inform targeted improvement plans. The final report will be used as a summative assessment of attainment of competencies and shared as a robust educational handover tool when learners progress to their next level of training. Faculty development is essential.

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Oral 93

"What you feel is what you feel" - Simulation debrief strategies to uncover health professions learners' emotions

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Background

Debrief, a facilitated discussion used to explore and analyse learner's performance and guide reflection, is considered essential in simulation-based education (SBE)¹. Simulation educators use a range of frameworks to conduct debrief, with their expertise considered crucial to learning¹. SBE is an emotion provoking learning situation, with emotions impacting performance and learning². Debrief provides a valuable opportunity for learners to process emotions², often reducing negative emotions that may inhibit learning and reinforcing positive emotions to promote learning. Yet little is known about the debrief strategies simulation educators adopt to support learners to link emotions to learning.

Research Question

To explore debrief strategies health professions simulation educators use to uncover learners' emotions and link these to learning.

Methods

A nominal group technique (NGT)³ was conducted using purposive sampling of experienced Australian health professions simulation educators. A six step NGT process was followed via an online meeting and post meeting surveys⁴. Data were collected iteratively to identify debrief strategies that met the research question. Quantitative data, generated from voting and ranking of debrief strategies, were analysed using descriptive statistics. Content analysis was used for qualitative data generated during group discussion to clarify, contextualise, and rationalise decisions related to the final debrief strategies.

Results

Nine simulation educators from four health professions with more than five years' experience each using SBE to plan, design, facilitate, debrief and/or evaluate healthcare simulation completed the NGT. Twelve simulation debrief strategies were voted by participants as appropriate to meet the research question, then ranked in order of importance. Qualitative themes generated included the interconnectedness of the simulation process, importance of language and how statements were interpreted.

Conclusion

Educators use a range of debrief strategies to link learners' emotions to learning. Authentic curiosity, setting the scene for time, space and reflective opportunities and emotional acknowledgement are considered important.

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Oral 94

Cost-effective clinical placement models to enhance clinical competence and work readiness of undergraduate nursing students

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Statement of problem

Clinical placements account for a significant national cost to higher education providers. Deans and Heads of Nursing manage substantial clinical placement budgets and need evidence to guide the use of their limited resources in the most efficient way possible to ensure quality educational experiences for undergraduate nursing students. Currently more than 28 nursing clinical placement models are reported in the contemporary literature. Notably, there is a paucity of robust evidence about the associated costs and cost-effectiveness of these clinical placement models. There is a gap in knowledge regarding the cost-effectiveness of clinical placement models, explicitly concerning the outcome measures of clinical competence and work-readiness of the graduating nurses.

Aims

This presentation reports the findings of phase three of a four phase mixed methods study to determine the most cost-effective method to structure nursing clinical placements to prepare clinically competent, work-ready RN graduates in the Australian context.

Methods

Following completion of a scoping review and a national survey to explore current clinical placement models in Australia, comparative mixed methods case studies with qualitative and quantitative data gathered from key stakeholders were undertaken (n=3). *Qualitative* data was collected through focus groups and individual interviews. *Quantitative* data was gathered using valid and reliable assessment tools: Australian Nursing Standards Assessment Tool (ANSAT)(Ossenberg, Dalton and Henderson, 2016), Short version-Nurse Professional Competence (NPC) scale (NPC-S) (Nilsson et al., 2018), Work readiness scale (WRS) (Caballero, Walker, Fuller-Tyszkiewicz, 2011) and the Placement experience tool (PET) Cooper et al., 2020).

Results

The results of the case studies will be presented, including preliminary findings as to which clinical placement model is cost effective in educationally preparing clinically competent, work-ready graduate nurses.

Conclusion

This study addresses the ongoing issue of quality clinical placements for undergraduate nursing students by examining their cost effectiveness. The findings aim to mitigate the current health workforce crisis by reducing attrition rates in nursing programs. Additionally, the results will offer valuable insights to guide future policies, funding decisions, and strategies related to clinical placements in nursing.

References:

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Oral 95

The next sTEP: Using immersive simulation to empower healthcare professionals to engage in Shared Decision Making for Treatment Escalation Planning

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Background

In severe illness quality of care becomes imperative, but the goals of treatment will differ between patients. Through shared decision making (SDM), treatment escalation planning (TEP) provides coordinated person-centred care, supporting the delivery of Realistic Medicine (1). Patients with a TEP are significantly more likely to have end-of-life care preferences respected (2) and incur reduced costs due to fewer non-beneficial interventions (3). Initial focus groups identified “lack of confidence and experience” as recurrent themes that were a limiting factor to staff in Aberdeen Royal Infirmary initiating TEP conversations.

Method

To address this, we developed a pilot communication simulation in a collaboration between NHS Grampian and the University of Aberdeen. Two pilot sessions had 7 participants from a range of inter-professional healthcare backgrounds. We used the REDMAP (Ready, Expect, Diagnosis, Matters, Action, Plan) Framework (4) of SDM as a tool to help structure these conversations, with most of the session focusing on practicing communication skills via immersive simulation. We created a range of medical and surgical scenarios that participants might come across in their varying specialties. An immersive simulation room with patient partners was used to create a high-fidelity environment. The simulation conversations were livestreamed to a different room where the rest of the participants and faculty could watch in real time. Learning conversations were facilitated by programme faculty as well as Consultants from various specialties.

Results

Initial evaluation showed an overall increase in participants understanding of SDM in TEP, as well as overall increase in confidence in practicing SDM using a structured approach. 100% of those who completed the evaluation where extremely likely to recommend this training to a colleague. We have planned focus groups and further pilot sessions, with the aim to have a finalised programme to roll out across NHS Grampian in January 2025.

References:

1. Realistic Medicine - Shared Decision making, reducing harm, waste and tackling unwarranted variation. <https://realisticmedicine.scot/>
2. Detering et al., BMJ 2010; 340: 1345.doi.org/10.1136/bmj.c1345*
3. Bouttell et al., Int. J. Qual. Health Care 2020
4. REDMAP Framework ,Ai SPICT (Supportive and palliative Care Indicators Tool). <https://www.spict.org.uk/red-map/>

Workshop 96

Designing, implementing, and evaluating educational interventions in the clinical setting

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Introduction

This workshop aims to provide participants with a comprehensive understanding of designing, implementing, and evaluating interventions that support competency development in healthcare professionals–†[1]. Participants will explore core evidence-based instructional design principles and strategies to develop educational interventions that foster essential learning outcomes that transfer to clinical practice.

Through engaging activities, we will guide participants step-by-step through planning, executing, and assessing interventions using theory-based approaches. Participants will receive practical tools and frameworks to ensure these initiatives align with specific goals and desired outcomes. By the end of the session, attendees will gain actionable insights and techniques to refine and optimize their own programs.

Form of content

The workshop will be delivered through presentations, case-based group activities, and plenary discussions. Participants will engage with real-world examples and scenarios to apply theoretical concepts in practice, guided by experienced facilitators who will provide insights from academic and healthcare settings. Small group activities will foster collaboration and hands-on learning, while facilitated mini-debriefings will support group reflection, discussion, and evaluation of the different frameworks and approaches introduced. The session will conclude with an open dialogue on the benefits and challenges of implementing complex interventions in dynamic healthcare environments, ensuring participants leave with a well-rounded understanding and practical strategies for their educational contexts.

Expected Outcomes

After this session, participants will be able to:
Describe models of instructional design to develop and evaluate educational interventions.

- Apply these frameworks to real-world cases.
- Focus on key approaches, such as the

logic model and theory of change, to provide a clear framework for designing and evaluating educational interventions.

- Critically assess interventions' effectiveness and alignment with educational goals.
- Identify strategies to navigate the complexities of implementing interventions in dynamic healthcare environments.

Intended audience

Health professions educators, healthcare professionals, educational administrators, researchers, trainers, policymakers, and students interested in developing, implementing, and evaluating effective interventions in medical education.

Summary of the instructor's qualifications

Anders (PhD student), Qualifications:

Extensive experience working with complex interventions from a strategic perspective.

Rune (PhD, Associate Professor, Head of Research) Qualifications: Applied realist evaluation to evaluate complex interventions nationally and internationally in regional and university hospitals.

Maria Louise (MSc. Psych., PhD, Assistant Professor), Qualifications: experience with translational research, working with exploration of psychological basic science constructs and translating this into simulation-based interventions.

Andrew (Associate Professor), Qualifications: Combines clinical expertise as an Emergency Physician with a strong medical education and simulation background, underpinned by his academic role at Sydney University and extensive experience in prehospital care and teaching in the clinical setting.

Walter (Professor), Qualifications: Brings extensive expertise in designing and evaluating educational interventions in clinical settings, drawing on his background in pediatric emergency medicine, health professions education, and his research on team adaptation and collaborative learning in the healthcare and extreme environments.

References:

Skivington K, Matthews L, Simpson SA, *et al.* A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance. *BMJ* 2021;374:n206-n2061.

Workshop 97

Caution Contents Hot: Developing a Participation Information Sheet and Consent Form for Simulated Patients and Students participating in Clinical Examination Skills

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By the end of this workshop, participants will: Understand the reasons why a participant information sheet, consent form and protocols are needed when simulated patients and students are involved in clinical examination skills teaching and assessment. Have considered what content would be included in such documents. Determined who they will need to collaborate with in the process. Have created draft documents specific to their own institution. Produced an action plan and time line for the implementation of the process.

This workshop will incorporate the conference theme of Past, Present and Future. There will be reflection on how the world of clinical skills education has changed with time, and how we live in an increasingly ethical and litigious climate. Participants will be encouraged to consider if their current practice reflects this and whether/how it needs to change. Participants will progress to writing draft documents and develop an action plan including a time frame to implement their documents and processes. The format will be interactive, with participants working in small groups and individually throughout. This will be guided by a PowerPoint presentation which will include the presenter's journey and experience of developing such material at a large UK university. This will provide a rigorous framework to support their learning of a complex topic. This workshop is suitable for any individual interested or involved in clinical skills education. The instructor obtained her medical degree in 1998 at the University of Manchester before progressing onto qualifying as a General Practitioner. She then moved into academia and successfully obtained a PGCert in Higher Education and Fellowship of the Higher Education Academy. She is a Senior Lecturer in Clinical Skills, the Associate Lead for Clinical Skills for the MBChB medical degree at the University of Manchester, Lead for Clinical Examination Skills in Years 1-2 of the programme and Lead for Early Clinical Experience hospital visits. She is involved in teaching and assessment of clinical skills. In addition to her undergraduate teaching, she has been involved in the development of clinical

skills of qualified pharmacists. Group facilitation is part of her academic role and she has prior experience of workshop delivery at conferences. The instructor will make the workshop an enjoyable, interactive, informative and useful activity. Participants will leave with a broader perspective on this topic, enhanced knowledge and skills, draft documents and action plans to progress further should they wish. In view of the proposed format there is no particular limit to the audience size.

Workshop 98

Using clinical reasoning to teach and assess clinical skills in the workplace

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Clinical reasoning (CR) is the thinking that we do every day in our practice as doctors. This includes interacting with patients and the clinical environment and assimilating information to formulate diagnoses and management. This is a critical clinical skill for undergraduate students to learn to function effectively in the workplace and keep patients safe. There is a growing consensus that CR should be formally incorporated in undergraduate curricula (1). In this workshop we share learning from the implementation of our clinical reasoning curriculum in Manchester (2) focusing on hands-on ways to integrate CR into the teaching and assessment of core clinical skills. The CReME consensus statement (1) provides a helpful framework for the important skills we should be teaching our students in order to maximise their CR development during clerkships as they develop their skills of history taking and examination.

We will share practical tips including how and why we developed our CR tool which helps students with purposeful interviewing. We will also explore how an illness script tool can be used to help students maximise their learning in experiential situations. Many clinicians are unfamiliar with teaching CR (3) so staff development initiatives will also be covered. Participants will discuss ways to teach CR aided by examples of how we have done this across our large cohort in Manchester. Delegates will consider ways to assess CR in the workplace. We will share examples of how to do this including feedback forms that can be used to promote discussion of CR aspects when assessing both history and examination skills. Attendees will be encouraged to consider how these can be implemented in their own institutions

Objectives

1. To discuss techniques for teaching CR and how to share these through staff development
2. To explore practical ways of incorporating CR teaching into history taking and clinical examination
3. To share ways of formatively assessing CR within workplace-based history and examination feedback

Audience

Attendees with an understanding of CR who wish to further develop this and practically apply it to teaching and assessment of clinical skills in their institutions. Max 40.

Instructors

Dr Jones is Associate Programme Director for Teaching and Learning at Manchester Medical School (MMS). He is a neurologist and chairs the Association of British Neurologists' Education Committee. He has provided sessions on CR to specialty audiences including neurology, geriatrics, acute and emergency medicine. Dr Watson is the academic lead for year 4 as MMS. She is a rheumatology consultant and the Digital Learning Editor for the British Society for Rheumatology. She has been an active member of the ASME EDC running workshops at ASME conferences.

They have published on their experience of incorporating CR into the undergraduate curriculum in Manchester as part of the Manchester CR group. Previous workshops on CR teaching and assessment delivered at UK CR in Medical Education (CReME) conference.

Dr Taylor is an academic trainee (medical education) with an interest in CR and illness scripts.

Oral 99

The practice of thresholds; transformational learning triggered by practical experience

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Introduction

This paper (Fredholm et al., 2019) demonstrates a practical dimension to threshold concepts. Threshold concepts have thus far mostly been acknowledged to elucidate learning processes connected to theoretical concepts.

Background

The idea of a practical dimension to thresholds is supported by Land and Meyer (2011) who in relation to the ontological transformations, i.e. changes in being, identity or awareness, claim that thresholds might also be connected to procedural knowledge. These "learning thresholds" (Land and Meyer 2011, 93) are occasioned by significant learning, creating shifts in identity, and accompanied by a change in cognitive understanding. In this paper threshold concepts were examined with autonomy and authenticity in learning as background.

Aim

To learn more about situations that prompt experiences of autonomy and authenticity, and create prerequisites for such experiences, this paper examined how students discern and interpret these situations by analysing them through the threshold concept framework.

Methods

The study was undertaken using narrative inquiry. Stories were collected as a mean of understanding experience (Clandinin and Connelly 1994). Twelve interviews were conducted with students from different educational programs. The analysis was made up from the characteristics for threshold concepts (Meyer and Land 2005).

Findings

By exploring situations that prompted experiences of autonomy and authenticity in clinical learning, findings showed how a practical experience had the same power to transform thinking and identity as theoretical thresholds and serve as a trigger for transformational learning.

Discussion

We would argue that the inherent authenticity in practical thresholds plays a key role for their transformational capacity. One possible explanation could lie in the nature of clinical action or procedures as per se relevant and meaningful, there is no questioning about why this has to be studied or learned as this is motivated by the clinical situation. Moving away from the clinical arena, practical actions and/or procedures also poses a self-evident part of the curriculum, motivated by perceived relevance and meaning. Findings show how transformational learning was created through authentic clinical experience, but we have not been able to fully see what constituted the passing of a threshold, other than maybe time. In narratives where the focus on an isolated actor event in the practical experience, feedback might have played a role seen in the immediate “bodily” feedback when performing a task correctly.

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Round Table Discussion Group 100

The Clinical Skills Learning Environment: are we getting it right for neurodiverse students?

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Neurodiversity is an umbrella term used to refer to the range of differences in individual brain function and behavioural traits. It describes the idea that people experience and interact with the world around them in different ways and that there is no ‘right’ way of thinking, learning or behaving.

The term neurodiversity is also used in the context of Autism, Development Coordination Disorder and ADHD. There is limited data on the overall prevalence of neurodivergence among medical professionals and available literature often focuses on Autism alone. A study by the Royal College of Psychiatrists, estimated that around 3000 doctors practising in the UK have Autism (1). This estimate is likely to be an underestimation as neurodiverse strengths may be actively selected into medicine and not all those with Autism have a formal diagnosis.

In the past, lack of awareness and stigma lead to the exclusion and misunderstanding of those with neurodevelopmental differences. Learning environments were often ‘one size fits all’ and did not cater to those with neurodiversity.

At the University of Manchester, we aim to provide a Clinical Skills Learning Environment that is inclusive to the full spectrum of neurodiversity seen in our medical student population. We aim to embrace neurodiversity and recognise the many assets neurodiverse doctors bring to the medical profession. Whether this be the ability to utilise lived experience to offer informed empathy and advocacy for their neurodiverse patients or the presence of traits such as attention to detail or creative problem solving.

Looking to the future, we would like to ask how we can further support and embrace neurodiversity in clinical skills teaching.

We would like to challenge myths and stereotypes that surround neurodiversity and ask what can be done to promote inclusivity to foster a flourishing medical profession that is truly representative of the wonderfully diverse population we care for.

During this round table discussion, we will present a series of questions to encourage participants to consider the above.

By the end, participants will have:

1. Developed an awareness of the challenges a neurodiverse medical student might face whilst learning clinical skills and during their transition into clinical practice.
2. Reflected on the assets a neurodiverse medical student might bring to the clinical skills learning environment and their future clinical practice.
3. Considered how medical educators might best support students with their clinical skills learning and transition into clinical practice.
4. Committed to creating a neuroinclusive clinical skills learning environment that values the qualities that a neurodiverse population of medical students might bring.

This round table discussion is open to all.

References:

McCowan, S., Shaw, S., Doherty, M., Grosjean, B., Blank, P., & Kinnear, M. (2022). A full CIRCLE: Inclusion of autistic doctors in the Royal College Of Psychiatrists' values and Equality Action Plan. *The British Journal of Psychiatry*, 221(1), 371-373. doi:10.1192/bjp.2022.14.
Dr Anna Rennie and Dr Louise Smith are the Academic Lead and Associate Lead for Clinical Skills at The University of Manchester.

Oral 101

Using illness scripts in clerkships as a tool to develop clinical reasoning

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Background

Clinical reasoning is the process in which clinicians gather and synthesise information to inform diagnosis and management¹. Diagnostic errors are common, and lead to adverse outcomes for patients². It is therefore imperative that educational methods promote the development of this clinical skill. Illness scripts are a structured way of an individual summarising the key components of disease, based on script theory³. Existing research is limited but suggests that completing illness scripts is associated with improvement in clinical reasoning. Illness scripts were recently introduced into our medical programme at The University of Manchester. This study aimed to explore how medical students are using illness scripts in their clerkships.

Methods

Ethical approval was gained from the Proportionate University Research Ethics Committee. Participants were third year medical students. A mixed-methods design was used; initially a branching survey, followed by focus groups. Quantitative and thematic analyses were then completed.

Results

416 individual student survey responses were received; a 77% response rate. Focus groups were conducted with a total of ten students. Quantitative data demonstrated a lack of understanding, formal teaching and usage of illness scripts. For those who completed illness scripts, they were found to be helpful for learning, revision and clinical reasoning. The qualitative data reinforced these findings and provided suggestions for improvement, such as raising awareness of illness scripts, including them in group work and practical changes to make them more user-friendly.

Conclusions

There is a lack of awareness and understanding of illness scripts, but when used, students find them helpful. By promoting the use of illness scripts and educating students about this learning tool, their potential may be maximised, ultimately aiming to improve clinical reasoning amongst medical students. Future research will involve re-evaluation after the introduction of improved teaching regarding the importance and usage of illness scripts.

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Oral 102

Decision Fatigue in Final Year Medical Students - What is the impact?

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Background

Decision fatigue is well noted in the literature with regards to healthcare in both medicine and nursing (Allan et al., 2019). There has thus far been research into the impact of decision fatigue on prescribing (Hughes et al., 2020), diagnostics (Linder et al., 2014), and referral frequency (Allan et al., 2019) but none looking at how decision fatigue affects clinical decision making in medical trainees at different transitional points in their medical training, specifically the final year of undergraduate medicine.

Beyond this, clinical reasoning and diagnostics are an important aspect in undergraduate medical curricula (GMC, 2018).

We aim to use simulation methods to answer the following questions:

1. Does decision fatigue impact the diagnostic accuracy and further management decisions of final year medical students?
2. What is the perceived impact of decision fatigue on decision making, by final year medical students?

Methods

Participants will be identified during their final year placement in NHS Lanarkshire and invited to take part in the project. Firstly, an immersive simulation scenario will be used as a tool to assess clinical decision making: participants will be randomised into case or control groups. The control group will participate in a simulation involving one deteriorating patient with asthma. The case group will participate in a simulation in which they will face various clinical decisions and tasks before assessing the same deteriorating patient with asthma. Both groups will be timed in their assessment of the patient using three main 'checkpoints': time to oxygen delivery, time to nebuliser administration, and time to steroid prescription. Secondly, participants will be interviewed following simulation using a semi-structured interview covering topics such as emotions during the simulation, the perceived impact of decision fatigue on their assessment, and how they felt with the number of decisions they were making. Their responses will then be thematically analysed.

Themes and results from analysis will be shared at conference.

References:

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Workshop 103

The Past, Present and Future of Semi-Immersive Technologies in Simulation and Clinical Skills: How to Develop Resources and Implement Education

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In recent decades, many institutions have invested in 'semi-immersive' spaces, typically based on large-format video, covering several walls of a teaching room. Initially based on projectors and relatively small-scale, these resources have evolved to use high-definition screens and multimedia, and enable interactive learning. Our institution recently invested in a 'Decision Theatre' which allows educators to create scenarios for up to 24 learners. The dynamic presentation of data, video, audio, and lighting provides an interactive platform for exploring complex scenarios. It comprises a 22-metre wrap-around video wall made of high-definition screens, a surround sound system, controllable lighting, auto-tracking cameras, and up to 40 virtual reality headsets.

The Simulation and Clinical Skills Team at Lancaster Medical School was invited to develop content for this new resource. We decided to initially offer this learning to our third-year medical students, to help to orient them to anaesthetic practice, including the application of clinical skills, in advance of their first placement in the operating theatre.

Anaesthetic practice involves airway assessment and management, continuous evaluation of the patient's cardiorespiratory and neurological systems, and interventions to maintain patient safety. This is highly relevant to newly qualified doctors who are expected to be able to manage an acutely unwell patient, so exposure to anaesthetic practice is a valuable learning opportunity. However, most anaesthetic interventions are compressed into a small timeframe, when general anaesthesia is induced. Based on student feedback and reflection on our own early experiences practice, we were concerned that it would be challenging for students to understand the key stages of induction of anaesthesia through workplace-based

learning alone. Our Decision Theatre teaching was therefore designed to demonstrate an uncomplicated induction of general anaesthesia in real clinical practice, and break it down by system (airway, breathing, etc), including an explanation and demonstration of interventions and how to interpret relevant information - a key factor in the development of situation awareness. Developing this resource involved collaboration between clinicians, medical videographers, educators and information systems specialists, and relied on the generosity of a patient volunteer. In this workshop, we will use virtual reality headsets to transport participants into the Decision Theatre scenario, and offer insights into the development and implementation of semi-immersive learning from the perspective of all collaborators. We will present the feedback from our first cohort of students, and facilitate an open discussion of how these technologies can be used to support future learning.

Additional information

Workshop objectives

- Orient participants to semi-immersive learning technologies
- Demonstrate the use of semi-immersive technology using virtual reality
- Discuss instructional design and logistical challenges
- Discuss opportunities for future, including collaboration

Intended audience

- Those with an interest in simulation, clinical skills, and technology-enhanced learning
- We would welcome a blend of participants from diverse professional backgrounds

Instructor's qualifications / prior experience:

- The workshop will be facilitated by colleagues from four teams: education, clinical practice, videography and information systems. The presenters have extensive experience in education, including numerous interactive conference presentations.

Maximum number of participants:

- 40 (based on the number of VR headsets)

Workshop 104

Words Matter: How Clinician and Educator Language Shapes Healthcare Culture

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Clinical and simulation educators, as communication experts and healthcare leaders, usually carefully consider the words they use. And yet, in peer reviewed journals, at professional conferences, and during educational activities, our “lingo” often includes ‘inappropriate’ words that could be perceived as misleading, patronising, and elitist. These word choices - almost always inadvertent, yet no less problematic - can signal cultural insensitivities and implicitly create realities, stigmatise, and underscore implicit biases. Consider some commonly used words and phrases in simulation and health professions education, such as: standardised patient, confederate, stakeholder, dummies, and many “non”-words, such as non-clinician and non-technical skills. Do we use them unthinkingly, not realising that the historical or current implications they may have? We seek to highlight an obvious tension between two needs: (a) to meet people where they are, by using familiar and comfortable language that also serves as a shorthand, and (b) to invite them out of their comfort zone, to think critically about their word choices, perhaps as carefully as they would about clinical diagnoses and treatment interventions. Building on this tension, this workshop aims to develop critical thinking around language. This workshop will include a brief history and exploration of other sectors where language has changed culture, followed by hands-on simulation exercises. Small group discussions will encourage participants to share their experiences, and we will conclude with a feedback session to reflect on key takeaways. The session will foster inclusivity and cultural awareness among clinical and simulation educators.

Clear description of the workshop objectives

After the workshop, participants will be able to:

- Describe how language evolves over time and how we can be mindful of these changes
- Critically reflect on words that have become inappropriate for various reasons
- Discuss the implications of our word choices and propose alternatives
- Outline theories from other fields that help us reflect on the power of language, e.g., The Third Reich

Intended audience (experience level and pre-requisites)

All conference delegates

Summary of the instructor's qualifications or prior experience in similar presentations

All instructors have conducted workshops at numerous international meetings over the past 15-20 years—†

Maximum number of participants in the proposed workshop

Unlimited

References:

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Oral 105

Evaluation of General Practice Assessment for Progression Examination (APEX)

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Background

The Assessment for Progression Examination (APEX) is a novel competency-based assessment introduced into Monash University Medicine program. This summative assessment is designed to assess physical examination skills within the General Practice (GP) rotation. In contrast to an OSCE, it is performed asynchronously with no sequestration. With an emphasis on assessment for learning, students are provided with outcomes and feedback immediately after. Oudkerk Pool (2018) concluded that competency-based assessments were associated with improved clinical performance and professional development, particularly in settings that combined simulation with real-time feedback. The evaluation of the GP APEX aims to explore the perspectives of key stakeholders; medical students, examiners, simulated patients and administrative staff.

Methods

A mixed method study was conducted using a social constructivist paradigm. Students were invited to complete a survey. Students, examiners, simulated patients and administrative staff were recruited for a semi-structured interview, with interviews recorded on zoom and transcribed verbatim. Iterative qualitative data analysis is currently underway with the identification of codes which will be analysed thematically. The study is now finalising data collection, with 60 survey responses, interviews from 18 students, 6 simulated patients, 3 examiners and 2 administrative staff.

Results

Preliminary survey results show that 92.5% students agree the GP APEX enhanced examination skills and 96.2% agree that examiner feedback was constructive and will improve clinical practice. This is coherent with a key theme identified in the qualitative data; students find feedback helpful and applicable in future practices. Student wellbeing, preparedness for APEX and good organisation were other themes identified in the analysis.

Conclusion

Stakeholders valued the GP APEx as an assessment for learning tool, with students finding feedback useful in enhancing practice. There is significant potential to expand the APEx to incorporate assessment of history taking and management skills.

Reference:

Oudkerk Pool, A., Govaerts, M. J. B., Jaarsma, D. A. D. C., & Driessen, E. W. (2018). From aggregation to interpretation: How assessors judge complex data in a competency-based portfolio. *Advances in Health Sciences Education: Theory and Practice*, 23(2), 275-287. <https://doi.org/10.1007/s10459-017-9793-y>

Oral 106

Does the use of children as simulated patients improve medical students' confidence in paediatric interactions? A pilot study

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Background

The use of simulated patients, also known as standardised patients, is a recognised, safe, and effective method for developing medical students' clinical skills (1). This approach allows for the repeated use of standardised scenarios and reduces reliance on real patients. Traditionally, undergraduate pre-clinical paediatric teaching has relied on manikins and videos to simulate child examinations (1). Feedback from faculty and medical students at the University of Dundee highlighted the desire and need for learning through direct interactions with children prior to clinical placements in the senior years. This need is also recognised in the literature, as it optimises learning for future clinical paediatric placements (2).

Aim

The aim of this study is to understand whether using children as simulated patients enhances medical students' confidence in paediatric interactions in preparation for clinical placement. Although often criticised, 'confidence' was deliberately chosen as a useful marker in similar contexts (3). Secondary outcomes include assessing improvements in knowledge of developmental assessments, improving clinical examination skills in children, and exploring the practicalities of integrating children as simulated patients.

Method

Twenty medical students who have completed second-year paediatric teaching will participate in the pilot study. Participants will receive a brief presentation to help revise developmental assessments and the differences in paediatric examinations. They will then engage in a multi-station paediatric session featuring five parent-child dyads. The simulated patients (SPs) will range in age from 0 to 12. This will be an evaluative study using pre- and post-questionnaires, followed by focus groups, with the results to be thematically analysed (4). This is a work in progress.

Conclusion

This is a pilot project that is ongoing. This will be completed by the time of presentation.

References:

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Oral 108

A national organisation for healthcare professionalism educators

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In recent years professionalism has emerged as an increasingly important aspect of undergraduate medical education. Previously it was largely relegated to the hidden curriculum, whereas nowadays it features increasingly prominently in formal curricula across various healthcare courses including medicine and nursing. Moreover, professionalism assessments are becoming more widespread, perhaps most notably in the UK context within the Medical Licensing Examination, a national exam which is now a prerequisite for the award of a primary medical qualification. Most UK medical schools have appointed a lead for professionalism education, and the subject appears in most curricula. However there remains significant variation in regard to almost every aspect of undergraduate medical professionalism education: how it is taught, where it is taught, the academic or clinical background of the teacher, the degree to which it is assessed and so forth. Professionalism also remains widely conflated with 'avoidance of unprofessional behaviour', disciplinary processes and fitness-to-practice panels.

The UK Council for Educators of Medical Professionalism (UKCEMP) is the not-for-profit UK organisation for professionalism educators in undergraduate medical school. Biannual meetings provide a forum for discussion of shared challenges and notable practice. The member directory provides a route for institutions to recruit external examiners and panellists for fitness-to-practice hearings. Committee works lends itself to the creation of national resources including 'helpful hints for clinical teaching fellows'. A major project is also underway to define an indicative national curriculum for teaching professionalism at undergraduate medical school. There have been several logistical challenges in establishing the group. These include its legal status, financial considerations, and maintaining its running on what is ultimately a voluntary basis. Notwithstanding these challenges, UKCEMP's membership and role in medical education continues to grow. It provides an excellent example of how societies can positively influence the shape of medical education on a national stage.

Oral 109

A bluffer's guide to inserting professionalism into medical school curricula

Scott Oliver

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There is increasing recognition of the need to formally teach professionalism at undergraduate medical school. This presentation describes professionalism training's rapid integration across a packed undergraduate medical curriculum. The University of Glasgow medical school has rapidly expanded against a backdrop of the pandemic and moves towards hybrid or online learning. The author was appointed vertical theme lead for professionalism in 2022. Most of the designated curricular space was labelled as 'professionalism expectations' lectures. The recently introduced Medical Licensing Examination provided an impetus for change, and to broaden the definition of professionalism beyond simply 'avoiding unprofessional behaviour'.

A strategy of 'enabling professionalism education' was devised for later clinical years. Faculty development workshops and content aligned with existing clinical placements were devised. Small group sessions were provided as opportunistic 'filler' teaching material. Relationships with other faculty members enabled efficient collaboration, for example providing clinical video vignettes to illustrate academic topics. Notably this included 'death certification', a session which anecdotally remains highly valued by students following graduation. Relatively minor amendments often added significant professionalism content to existing materials, without substantially changing how the topic was taught. Non-traditional content was developed for flexible consumption, for example, podcasts and posters. Student engagement was driven through labelling content with clinically oriented titles (for example: 'giving driving advice' rather than 'confidentiality') while authentic video vignettes were designed to be relatable to future junior doctors.

These strategies have emphasised the broad importance and relevance of professionalism teaching to senior faculty and curricular gatekeepers. Initial short, adjunctive lectures have given way to more substantive time allocations with students. While content development remains a work in progress, these materials are now available to students across every year of the undergraduate course. Colleagues wishing to introduce new curricular contents are likely to benefit from this multi-pronged approach.

Round Table Discussion Group 110

What standards are best suited to assessing professionalism during undergraduate health professions courses?

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Professionalism can be considered an amalgamation of personal attributes and behaviours, adherence to standards, and generally the 'human' aspects of being a healthcare practitioner. It is increasingly recognised as a key element of health professions education. The literature describes how it is learned(1), and professionalism increasingly sits within the formal curriculum of healthcare courses. In the United Kingdom, professionalism also constitutes a major component of the recently introduced Medical Licensing Exam.

Assessing professionalism is notoriously difficult. Standards of practice vary between professions, and many facets are contextual and open to interpretation. Perceptions of professionalism (and what constitutes 'unprofessional' may also be culturally determined. There is also a frequently observed conflation between 'unprofessional behaviour' and professionalism; one is not necessarily the opposite of the other, and assessing one doesn't necessarily provide assurance about the other.

At ICSC9 we considered the 'when, where and how' of professionalism assessment in a roundtable discussion. We discussed potential benchmarks of 'adequate professionalism' during undergraduate medical curricula. In this roundtable discussion we propose to further explore the standards that are best suited for professionalism assessments.

- What standards of professionalism should be used to assess students during their course of study? Is an iterative approach appropriate, as with more traditional clinical topics? Is regulatory guidance sufficient, or are stage-specific benchmarks needed?

- Should the same standards apply to all healthcare students? Should these vary by course? How should students be calibrated with regard to the cultural expectations underpinning these standards?
- Is there a role for early warning systems to detect low-level concerns? What is the threshold for exclusion? Can students who will not be fit-to-practise still pursue an academic healthcare course?

Colleagues from across the healthcare professions are welcomed to join this discussion. It will be of particular interest to those working in undergraduate assessment, professionalism and fitness to practise. The session is hosted by Dr Scott Oliver, Dr Kathleen Collins, Dr Alex Goodwin and Mrs Catherine Paton. Their award-winning Professionalism in Healthcare workstream spans University of Glasgow School of Medicine, NHS Education for Scotland, NHS Lanarkshire and the UK Council for Educators of Medical Professionalism. They bring decades of experience in healthcare, education, and an insatiable curiosity and desire to improve patient care through health education.

References:

1. Oliver SW and Collins K. The hidden professionalism curriculum: Teach it, see it, do it and repeat! [version 1; peer review: 1 approved, 2 approved with reservations]. *MedEdPublish* 2024, 14:39 (<https://doi.org/10.12688/mep.20276.1>)

Oral 111

International clinical skills conference - Long term benefits of Near Peer teaching on tutors and institutions

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Background

Near Peer Teaching (NPT) is a widely accepted method of enriching medical student learning including in the clinical years. While many recent articles have been presented and published these have largely been focused on single institution experience. Analysis of long term near peer teaching impact is limited to a single Australian project assessing how participating in NPT affects the NPT tutors future educational initiative involvement (Karia et al., 2024). We aim to review the longer-term impacts of NPT involvement on tutor progression clinically and academically, and impacts on institutional culture.

Methods

Mixed methods approach using semi structured interviews and a quantitative questionnaire to collect demographic data. Participants are three groups of individuals involved in an NTP program in one clinical setting: previous near peer tutors (>5 years post participation), recent near peer tutors (<5 years post participation) and Program Directors/Heads of Department.

A pre-interview survey will include demographic questions and details of NPT program involvement. The semi-structured interviews will focus on self-perceived benefits of near peer teaching, individual progression and ongoing engagement in informal and formal teaching. Questions regarding changes in institutional culture due to introduction of the NPT program will also be asked. Program directors will additionally be asked about trends in NPT over time. Thematic analysis will be performed by two independent researchers underpinned by social cognitive career theory (Lent et al 1994). This project will be performed in accordance with Tracy's criteria for high quality research (Tracy, 2010).

References:

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Poster 112

Medical Student Perceptions of Barriers to Competency in Intravenous Cannulation

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The General Medical Council includes intravenous cannulation (IC) as one of the core practical procedures that newly qualified doctors are expected to perform competently, to allow for safe practice (1). It is one of the most performed invasive procedures but has a high number of possible complications and a high failure rate (2). Becoming competent in IC is essential for medical students, to ensure patient safety and success when working as newly qualified doctors (1). However, teaching this core practical skill can pose challenges (3). It is important to gain an understanding of medical students' perceptions of the barriers they face when learning this skill, in order to provide them with adequate training. Currently a gap exists in literature, with little to no qualitative data investigating this. A questionnaire will be sent out to medical students to gain insight into their perceptions of the barriers to reaching competency in performing IC. The data will be thematically analysed. This will enable the design of a focused teaching session involving IV cannulation, as well as ultrasound guidance. This poster will present findings based on data analysis. It will also share an outline of the specifically designed teaching session for future implementation.

References:

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Poster 113

Bleeding During Bronchoscopy - Panic or Prepare?

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Background

Complications during flexible bronchoscopy are rare but may be fatal. Severe bleeding is most common, however, only occurs in 0.5% of patients undergoing the procedure (1). The British Thoracic Society (BTS) state bronchoscopy units must maintain operator performance (2). Given the rarity of severe bleeding, there are limited training opportunities for respiratory trainees and bronchoscopy nurses in this high acuity, low occurrence event. Simulation is frequently used to deliver training in bronchoscopy (3), however data is lacking analysing its role in training for this complication. We are therefore introducing a novel, simulation-based educational intervention to ensure all bronchoscopists are prepared to deal with this potentially fatal complication and that our health board is adhering to BTS guidelines.

Proposal

We surveyed 58 respiratory trainees in Scotland, of which 25 responded. 60% of respondents were satisfied with their training in bronchoscopy however 52% expressed a desire for further training in managing complications. 96% of respondents were interested in receiving additional training through simulation.

The Simbionix BRONCH Mentor, a bronchoscopy virtual reality simulator, is being used to deliver a high-fidelity, interprofessional, simulation scenario involving severe bleeding during bronchoscopy. Respiratory trainees and bronchoscopy nurses are invited to participate, and their preparedness to manage this complication is evaluated before and after training using a mixed method approach.

Conclusion

This is a novel strategy for delivering training in the management of bleeding during bronchoscopy. We anticipate this simulation-based intervention will improve the preparedness of respiratory trainees and bronchoscopy nurses for managing this complication, ultimately enhancing patient safety.

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Oral 114

The patient first and foremost: learning from patient narratives for the development of interprofessional education curriculum

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Background

The pursuit of patient centred care underpins interprofessional education curricula, so the perspective of patients in the design, implementation and evaluation of this curricula is required. This presentation will report on interprofessional collaborative practice, as understood by healthcare consumer advisory group members in Australia, and forms part of a larger study that sought to explore the views on collaborative practice from the perspective of multiple stakeholders.

Method

Focus groups were conducted with ten consumer advocates. Participants were asked to describe examples of their experiences of effective interprofessional collaborative practice, and when collaborative practice did not occur and the associated outcomes. The narratives were recorded, transcribed and analysed using framework analysis.

Results

Detailed examples of both effective and ineffective interprofessional collaboration experiences were shared, that extended across and between multiple clinical settings. When participants had been positioned as team members, multiple positive outcomes were described. If they had been excluded, poor communication, inefficiency and disjointed healthcare was described, leaving patients feeling disempowered and disengaged. Patients described the need for curricula that elevated the voice and status of the patient and/or their family/carer within a collaborative healthcare team. In addition, the clinical hierarchies of healthcare management hindered the experience of patient centredness. Patients, family and carers sought curricula that positioned them as central, rather than peripheral, team members within a collaborative healthcare team.

Conclusion

Power and hierarchy within healthcare team impacted on the experience of collaborative practice. Curriculum that demonstrates how to position the patient, family and carers as members of the team is required, for optimal patient outcomes.

Oral 115

"A change from the usual": Gamifying skill and knowledge consolidation piloting a large-scale undergraduate nursing escape room

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Background

Learning gamification has become a popular teaching strategy in health professions education¹. An educational escape room (ER), in which learners solve puzzles and complete tasks related to clinical knowledge and skills in order to progress through the game, can enhance critical thinking and problem solving whilst also fostering teamwork and collaboration²⁻³.

Aim

To explore students and academics perceptions of a large-scale undergraduate nursing ER.

Methods

An ER activity was designed for second year Bachelor of Nursing students to apply knowledge and skills taught over the semester in preparation for clinical placement. A range of puzzles, quizzes and clinical skills related to post-surgical nursing, medication administration, patient-controlled analgesia infusion and drain tube and suture removal were created. Students worked in small groups to complete all tasks over 100 minutes in order to 'escape'. Academic teaching staff and students were invited to complete an online survey following the class. Demographic and quantitative data were analysed using descriptive statistics, while open-ended questions were analysed using summative content analysis.

Results

Over one week, a total of 556 students in 28 classes completed the ER across two campuses. Sixteen academic staff facilitated the ER class. The survey was completed by 41% (n=229) students and 62.5% (n=10) academics. Overwhelmingly, academics and students reported the ER was a challenging yet exciting and novel way to learn. Academics valued the opportunity to see students working together to apply their knowledge and using their initiative to problem solve. Students enjoyed the gamification and competitive nature of the ER, as well as the collaboration with peers to solve clues.

Conclusion

A large-scale ER to consolidate nursing skills and knowledge in preparation for clinical placement takes significant planning and resources, yet is highly accepted and engaging for students and academics. Feedback will be used to incorporate improvements for future use.

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Round Table Discussion Group 117

Bringing Clinics to Classrooms: Accelerating Access to Real Patients, Their Stories, and Their Data for Healthcare Education

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In the past, there were fewer regulations and frameworks for protecting patient data used in teaching. Cases were discussed openly with less awareness of the need for confidentiality and paper notes were difficult to de-identify and access was difficult to audit. Today, there are General Data Protection Regulations that protect the dignity and confidentiality of real patient information and these need to be respected in teaching contexts. Furthermore, with increasing patient participation in teaching, patients are explicitly asked for consensual use of healthcare data. Students also have access to electronic health records (EHRs) that are monitored and audited within clinical training environments.

Looking ahead, we anticipate a further shift toward greater patient involvement in on-campus education, with advances in technology enabling new opportunities to use real patient narratives obtained from clinical settings in academic teaching. Is healthcare education primed for change? How can real patient data be leveraged to support more authentic learning experiences for healthcare students?

This roundtable discussion will address the practical and ethical considerations involved in using real patient data or records of patient encounters in teaching.

Discussion points include:

- What are the opportunities and risks of using real patient data in healthcare education?
- How can we maximize learning while ensuring patient protection?
- What factors should be considered when incorporating real patient narratives and data at your institution?

Participants

This discussion is aimed at educators from all healthcare disciplines who want to implement innovative solutions that use authentic patient narratives to align the student experience with real clinical practice.

Instructors

Professor Kurt Wilson (Professor of Medical Education), Professor Ang Davies (Professor of Healthcare Science Education) and Dr Fatima Nadeem (Clinical Lecturer) lead an interdisciplinary working group at The University of Manchester

to support the integration of Electronic Health Record education into undergraduate healthcare programmes. They are also part of a regional collaboration of universities with Health Innovation Manchester to explore and implement real patient records in teaching. Dr Nadeem has led research with patients, the public and healthcare professionals to explore the benefits and concerns surrounding use of real patient data for teaching within universities. Professor Davies is Director of Digital Transformation in Healthcare Education, developing new programmes and professional learning to support digital transformation in healthcare, Professor Kurt Wilson is Associate Programme Co-Director of Manchester's medical programme and has led a national collaboration to establish competencies for Electronic Health Record education.

Workshop 118

Teaching an empathy-focused approach to consultations with annoyed, upset or angry patients

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Rationale

All clinicians are likely to come across patients who become annoyed, upset or angry during consultations. Violence against healthcare workers increased during the pandemic and continues to do so. Adopting an empathic approach has been shown to improve outcomes in difficult consultations, reducing anger and frustration in all parties. Unfortunately, evidence suggests that empathy declines in medical students as they progress through training. This may mean that future clinicians will lack the skills to support patients they perceive as difficult.

Workshop objectives

Participants will:

- Consider the reasons that a patient may become annoyed, upset or angry
- Identify techniques that can help when dealing with a difficult consultation, including empathic approaches.
- Consider how these issues could be integrated into a training session for clinicians.

Intended audience

Clinicians and educators leading, developing and delivering teaching to undergraduate and postgraduate healthcare professionals with a focus on consultation skills and empathic healthcare.

Teaching methods

This will be an interactive session with minimal didactic presentations. Participants will be encouraged to reflect on their own experience. Small group work will enable participants to find and discuss their own solutions to the issues raised. Time will be provided for participants to work together to develop a teaching intervention incorporating learning from the workshop.

Evaluation of outcomes for participants

At the end of the session, participants will be asked to articulate what they have learnt and what they will take back to their practice or institution. Facilitators will provide a collated summary of the ideas generated in small group discussions to all participants. The workshop lead will provide details and resources from an evaluated training session on an empathic approach to difficult consultations that was developed and delivered in their own institution.

Preferred maximum number of participants
40

Presenters

AW an Associate Professor of Medical Education and an Honorary Senior Academic General Practitioner and has spearheaded the development of innovative, evidence-based teaching interventions designed to cultivate and sustain empathy among medical students throughout their training. With extensive expertise in healthcare communication and patient-centred care, his work has garnered international recognition, and he has presented workshops at numerous conferences around the globe. RB is an experienced medical educator who works with AW in the development and delivery of a significant clinical skills course at a large UK medical school. He has co-presented workshops with AW at conferences in the UK and overseas.

Oral 119

SimLab: enabling collaboration and organisational transformation through theory guided interprofessional simulation in general practice

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Background

General practice (GP) teams must effectively manage high acuity, low opportunity events such as paediatric emergencies. Simulation is useful for emergency training, with in-situ simulation (ISS) offering environmental fidelity. Existing ISS research tends to focus on individual outcome measures such as improved confidence^(1, 2). Theory-informed simulation design has potential to further the impact of simulation by enabling team and organisational change, not just individual preparedness, within clinically complex settings⁽³⁾.

Aim

To design, deliver and analyse a theory-informed ISS programme of interprofessional GP team emergency training ; to improve understanding of how best to structure ISS programmes to promote organisational change.

Methods

A GP interprofessional team participated in a modified change laboratory,⁽⁴⁾ 'SimLab' which consisted of four workshops. The first and third workshops included ISS scenarios which were video recorded and played back to participants after the simulation. All four workshops utilised Cultural Historical Activity Theory (CHAT) guided group discussions. Through dialogue participants collectively reflected on their shared activity and collaboratively designed practical solutions.

Results

CHAT-guided discussions provided a systemic view enabling participants to reconceptualise current working practices, understanding complexity and identifying contradictions. The team was empowered to collaboratively design individualised solutions, including re-envisioning the role of non-clinical staff; recognising limitations of individualised approaches; formalising emergency care responses; and introducing regular ISS emergency care team training

Conclusion

SimLab is an approach to interprofessional ISS design with a focus on organisational change within workplace complexity. We propose this approach could upskill interprofessional teams by combining CHAT and ISS to bridge the theory- practice gap and expands the pedagogic potential of ISS as an enabler of organisational change.

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Oral 120

Clinical Skills Education and Practice: A Structured Approach to Regional Anaesthesia Training

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Introduction

Regional anaesthesia (RA) clinical skills have recently been introduced to our learner's curriculum. However, individuals find it difficult to gain confidence and experience due to limited RA opportunities in the workplace. Therefore, we present a monthly RA skills course which implements spiral learning to consolidate these skills. The repetition and safety aspects taught within a simulated environment enables the learners to perform these skills safely in the workplace.

Methodology

Our systematic approach breaks down RA procedures into modular components, allowing learners to master each step individually before progressing to the next.

The training process follows a structured pattern:

Pre-reading and preparatory learning:

This involves studying relevant anatomy and skills theory prior to the relevant session.

Anatomy discussions and ultrasound image analysis:

Learners engage in drawing and analysing ultrasound images from memory.

Practical Session 1:

The first practical session emphasises safe needling practice under ultrasound guidance.

Practical Session 2:

This session focuses on identifying anatomy and practicing ultrasound imaging techniques on live models and phantoms.

Discussion

Our teaching style adopted a combination of two learning theories by Peyton and Robert Gagne. This allowed us to demonstrate, observe and feedback to learners with regards to their clinical skills, in addition to a focus on improving ergonomics, reinforcing knowledge through discussion, and allowing muscle memory development through repetition of clinical skills. After the course, learners completed questionnaires to provide quantitative and qualitative feedback. They rated their confidence of each skill individually pre-course and post-course. Results showed a significant improvement in all RA skills including

ergonomics, needling techniques and ultrasound image acquisition following attendance to the course.

Conclusion

Our systematic approach to teaching RA using cognitive and motor learning theories, has successfully enabled our learners to acquire knowledge and fundamental skills they can use safely in the workplace and fulfil their curriculum requirements.

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Oral 123

Interprofessional peer feedback conversations: co-designing with students to support development of collaborative practice skills necessary for clinical careers

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Introduction

Interprofessional learning offers students the chance to develop essential skills required to work collaboratively and effectively in interconnected professional settings. A key clinical skill is providing effective peer feedback. This project focused on improving student readiness for interprofessional and collaborative practice by seeking to enhance peer feedback skills. The project took place in an interprofessional, student-run paediatric screening program involving graduate-entry audiology, optometry, and physiotherapy students.

Methods

In Phase 1 of our study, we gathered perspectives on current peer feedback activities through student interviews, a workshop, and written reflections to explore ways of better supporting interprofessional peer feedback. A new feedback approach was then co-designed with a volunteer team of students and interprofessional educators, with supporting materials tailored to the specific learning environment. In Phase 2, we collected feedback from students and educators via interviews and student-submitted reflections on the new feedback approach. Thematic analysis was guided by the Feedback Mark 2 framework¹

Results/Evaluation

Preliminary analysis of data reveals the following themes:

1. Appreciation of interprofessional peer feedback
2. Enablers to dialogic feedback
3. Use of supporting materials

Discussion

Students referenced past experiences of discipline-specific feedback, both aligning with and diverging from existing literature. Students appeared to be challenged by the perception that feedback must come from a more knowledgeable source than a student peer, despite readily recognising the benefits of interprofessional feedback for their learning. While students found that prompts within the supporting materials aided interprofessional feedback exchanges, feelings of awkwardness with new peers affected feedback conversations. Building rapport and trust emerged as critical to fostering effective feedback conversations, along with the potential for more explicit preparation for feedback exchanges.

Reference:
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Poster 126

Enhancing Clinical Confidence: A Simulation Session for International Medical Graduates

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Introduction

International Medical Graduates (IMGs) often face challenges integrating into the National Health Service (NHS), primarily due to differences in communication, unfamiliar healthcare systems, and varied educational backgrounds (1). IMG representatives at our hospital observed a lack of confidence among peers in managing medical emergencies and ethical dilemmas. In response, a simulation-based course was developed to address these issues and support IMGs; transition into the NHS.

Methods

A survey identified key challenges for IMGs, leading to the creation of four clinical and six ethical scenarios. IMG representatives contributed to scenario design, ensuring alignment with their learning needs. The course was delivered over six months at a district general hospital in Scotland, featuring nine sessions with 34 participants, including clinical fellows, GP trainees, and FY1 doctors. The faculty included medical registrars, an IMG GP, IMG representatives, and a simulation technician. Participants rated their confidence before and after the course.

Results

The course significantly improved participants' confidence in both clinical and ethical domains. Qualitative feedback highlighted its "engaging" and "interactive" nature, praising the "safe environment" it provided.

Conclusion

The course was highly valued, addressing an educational need for IMGs. The unique involvement of IMG representatives in the design and delivery of culturally relevant scenarios was a key factor in the course's success. This course could be integrated into a broader induction programme to further support IMGs' transition into the NHS.

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Oral 127

A Decade of a Collaborative Care Curriculum Framework: Future Directions and Innovations

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Collaborative practice is widely acknowledged as crucial for enhancing healthcare outcomes and patient safety. Although Australia has not yet established a national competency framework, many universities have started integrating curriculum frameworks into their health profession programs. In 2014, Monash University initiated the development and implementation of a Collaborative Care Curriculum (CCC) Framework (Maddock et al, 2019). This framework focuses on four themes of person-centred care, role understanding, interprofessional communication and collaboration within and across teams. Student outcomes are defined at three levels: novice, intermediate and entry to practice. Over the past decade, significant efforts have been made to embed and evaluate Interprofessional Learning across all thirteen pre-registration programs within the faculty. As we mark the tenth anniversary of the CCC framework, ensuring its growth and sustainability remains a priority for Monash University. To achieve this, a comprehensive curriculum review and renewal process is necessary to ensure full representation at all levels and in all programs. A critical priority is the effective assessment of learning outcomes and the measurement of the long-term impact of this work on collaborative practice. This presentation will share our insights and outline our strategies for future achievements.

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Oral 129

Stepping Back for Safety - simulation-based intervention for adaptive expertise and clinical decision-making

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Background

Clinical decision-making (CDM) is a critical competency for physicians, yet it demands significant cognitive effort, often strained in the fast-paced healthcare environment. In this context, Adaptive Expertise (AE) has emerged as a valuable framework for enhancing decision-making skills. AE involves cognitive strategies that foster flexible and innovative problem-solving by promoting both procedural and conceptual knowledge (1). However, disruptions and interruptions are common in clinical settings and have been shown to hinder AE (2). Simulation-based education provides a valuable training platform where these real-world challenges, such as disruptions and interruptions, can be authentically replicated. Despite its long-standing use, limited research has explored how these factors affect the learning experience in simulation-based training (3). Therefore, this study aims to investigate the psychological impact of two types of disruptions during simulated medical emergencies: task disruption and task interruption.

Method

An experimental study was conducted with 20 post-graduate year 1 medical doctors, who were randomized into four conditions: (1) environmental interruptions (i.e., faulty equipment), (2) psychological disruptions (e.g., treating two patients simultaneously), (3) combined disruptions and interruptions, and (4) a control group. After the simulation, participants underwent semi-structured interviews, which were transcribed and analyzed using reflective thematic analysis (4) with AE as a sensitizing concept.

Summary of results, discussion, and conclusion

Preliminary findings suggest that psychological disruptions - whether alone or combined with environmental interruptions - were perceived as highly unexpected and interfered with decision-making. Two main themes emerged linked to experimental conditions: procedural decision-making appeared primarily in the control and environmental conditions. In contrast, conceptual decision-making was noted in all but the control condition. These results imply that task disruptions significantly impact adaptive decision-making by targeting conceptual knowledge, while task interruptions affect procedural knowledge. Participants described that those psychological disruptions also prompted more internal conflict, leading to creative problem-solving. Final conclusions will be presented at the conference.

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Poster 130

Peers without borders: building a global community of simulation based clinical skills practice

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Background

Arab American University - Palestine (AAUP) medical students study in the most difficult of circumstances. They have limited access to the breadth of simulation based clinical skills opportunities compared to students at the University of Dundee (UoD). This makes the transition from pre-clinical to clinical training challenging.

Methods

The UoD launched a summer school programme in 2023 and hosted 20 AAUP students in Dundee, to practice and enhance their clinical skills. In 2024, this programme was expanded to include peer tutoring involving a medical student from the UoD shadowing the AAUP cohort.

Importance

The aim of the peer-tutoring approach was to promote a collaborative learning environment, prioritising psychological safety whilst co-creating a symbiotic learning experience. We needed to determine the impact of peer support to inform future iterations of this programme and explore opportunities for future scholarship and research collaborations. This initiative will lay the foundations of a peer-tutoring network transcending international borders.

Evaluation

AAUP students highly valued the instruction by tutors, especially when humour was used as a mechanism for establishing psychological safety. However, they reported that peer-shadowing and peer-tutoring opportunities improved their educational experience because they felt more comfortable asking questions, giving and receiving feedback from peers.

Workshop 131

Collaborative Conversations: Strengthening Teamwork through Reflection

Vivienne Mak¹, Walter Eppich^{1,2}

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Introduction

Effective teamwork and interprofessional collaboration are critical to delivering quality patient care. However, siloed thinking and practices limits effective communication and leads to fragmented care, reduced patient safety, and missed opportunities for shared learning. This workshop explores ways of talking in teams that promote team reflection and collaboration by promoting a culture of open dialogue. Participants will explore collaborative leadership and the value of multiple perspectives within a team, along with the important role of psychological safety.

Format

Interactive discussions and engaging hands-on activities will help participants discover how diverse perspectives offer new insights. Viewing situations from different angles enhances team problem-solving, decision-making, and effective collaboration. Communication strategies such as debriefing achieve these aims by building trust, promoting psychological safety, and encouraging inclusive dialogue.

Expected Outcomes

By the end of this workshop, participants will be able to:

- Frame workplace activities as collaborative efforts that benefit from diverse perspectives and shared leadership.
- Apply specific communication techniques to encourage inclusivity, trust and mutual support among team members that foster collaboration.
- Apply a simple debriefing framework to facilitate team reflection, promoting continuous team learning and improvement.

Additional Information

Intended audience

No pre-requisites required. Designed for healthcare professionals, leaders, educators and any others interested in enhancing their skills in promoting collaboration and reflective practices within their teams.

Summary of instructors' qualifications

A/Prof Vivienne Mak and Prof Walter Eppich bring expertise in team dynamics, simulation and healthcare education to this workshop. Dr. Vivienne Mak is a pharmacist and Lead, Simulation-Based Learning at the Collaborative Practice Centre, and has extensive experience in healthcare education, simulation and curriculum design. She brings a strong emphasis on fostering professional networks across borders and disciplines, facilitating knowledge exchange, and advancing best practices.

Dr. Walter Eppich is a paediatric emergency doctor, educator, and researcher specializing in helping teams unlock their collaborative potential and optimize performance in high-pressure environments. With a PhD in Health Professions Education from Maastricht University and an Advanced Diploma in Professional Coaching, his international teaching and research focus on enhancing team performance, learning from adversity, and developing resilience and adaptability. His work intersects simulation and workplace learning with a focus on interprofessional collaborative practice, team reflection, and conversational learning. Together, their experience in both healthcare and education provides a solid foundation for guiding participants through reflective practices and collaborative communication techniques.

Maximum Number of Participants

40

Supplies

Laptop screen and PowerPoint presentation facilities.

Oral 134

Advances in Medical Education: Room for Escaping Traditional, Passive Teaching Methods

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Globally, the continual paradigm shift from didactic teaching styles to more interactive, student-centred learning is encouraged¹. Escape rooms are a novel teaching strategy being employed within medical education. They are group exercises that involve a scenario or case that requires resolution of puzzles and completion of tasks, which, in turn, addresses desired learning objectives. Escape rooms support the generation of new knowledge, and their use is supported by established educational theories².

We designed an escape room which aimed to not only foster new knowledge but facilitate the development of teamworking, leadership, problem-solving and analytical skills. These are essential skills within the medical profession. We devised and implemented a 45-minute escape room within the undergraduate medical education department at University Hospital Crosshouse. It was an adaptation and magnification of a previously trialled escape room and was delivered to fourth year Glasgow medical students³. This activity covered a range of general medicine topics from the core curriculum. Two groups of 5 students competed to finish a series of medical puzzles in the shortest time. A 10-minute pre-briefing was given to the students which outlined the scenario and end goal. Following the activity, a 30-minute debrief occurred where students could address gaps in, and reinforce, knowledge. Discussions encouraged feedback and reflection. Written students' feedback was encouraging. Feedback suggested the exercise was more interactive and useful for learning than tutorials. Objectively, greater levels of student engagement and teamworking were observed.

This learner-centred teaching modality is promising and may improve both student satisfaction rates, learning and student outcomes.

The use and evaluation of a modified student feedback form is in progress. Incorporating Likert scales such as confidence and knowledge levels pre/post activity alongside short answer questions may generate more specific, quantifiable and robust results to support ongoing use of escape rooms within medical education.

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Oral 136

Ward simulation exercises in a time of increasing pressure on resources: is sequential simulation the solution?

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Balancing rising learner numbers with growing pressure on clinical placements and the need for high quality education is currently the primary challenge facing healthcare educators¹. A final year ward simulation exercise (WSE) at the University of Dundee aimed to address this by moving from a conventional single-learner simulation to a sequential simulation (SqS) modality. SqS aims to re-enact the longitudinal aspect of patient care, rather than simulating isolated clinical incidents². Traditionally, our WSE required learners to attend and simulate a single clinical encounter, however our SqS model requires attendance in groups of three. Learners take turns observing and simulating, looking after the same three patients during a three-day inpatient stay, in a single session. The impact of this strategic change on learners was unknown, other than increasing their simulation exposure, and there is a paucity of research on the use of SqS, especially within a WSE context. This study aimed to explore the application of SqS to a WSE and consider its effectiveness. Following ethical approval, eight learners participated in four semi-structured group interviews. Groups of learners from the same WSE cohort were interviewed together, immediately after the exercise. Reflexive thematic analysis³ was undertaken to analyse learners' experiences. Learners described feeling engaged with the WSE, even while observing. Reasons cited for this included feeling invested in the clinical narrative and a feeling of pressure as they anticipated potential future events. Students reported and attributed increased motivation to the SqS model. Our findings suggest, in the context of ward simulation, SqS is an efficient way to deliver immersive simulation learning experiences whilst enhancing students' learning experience. We invite others to consider and explore SqS as an effective method of developing new and existing simulation-based exercises to meet the need of healthcare education at a time of increasing demand.

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Oral 137

Ultrasound guided cannulation. What do medical students think?

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Introduction

We designed, developed, delivered, and evaluated ultrasound guided peripheral intravenous access (USG-IVA) programme for medical students. We describe the pedagogic underpinning, design process, delivery and evaluation, challenges overcome, and lessons learned.

Background

Peripheral intravenous (IV) cannulation is the most commonly performed procedure in hospital, yet one third of patients experience difficult IV access (IVA). (USG-IVA) results in safer and more effective IVA, thus enhancing patient care (1). Despite compelling evidence of patient benefits, there is disparity of provision: for example, 73% of USA medical schools have ultrasound (US) curricula, compared to just 7% in the UK (2, 3).

Our literature-informed USG-IVA simulation course, incorporating principles of mastery learning, was delivered to doctors in training across Northern Ireland, and as a pilot project with Ulster University (UU) students. Challenges included time, resourcing (consumables and hardware), and faculty buy-in.

Methods

Likert scale quantitative data was collected, and qualitative free text responses were analyzed for content and theme.

Results

Our Kirkpatrick's level 1 data shows overwhelmingly positive participant feedback, and impact on confidence. Of 227 responses, 88 were from students. 100% agreed the session was useful. 100% agreed they could confidently identify arteries and veins, 99% agreed it helped improve understanding of IVA, 100% agreed the session increased their interest in point-of-care ultrasound (PoCUS), 100% (of 43 respondents) felt USG-IVA should be a core skill for anyone working in an acute setting. UU now embed USG-IVA into the curriculum. We are assessing impact at Kirkpatrick's level two and behavioural change (level three). We anticipate level 2 data will be ready to report at conference.

Conclusion

Challenges can be overcome, medical schools can incorporate PoCUS into their curricula, with USG-IVA as an ideal first step, with the expectation of improved patient outcomes.

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Workshop 138

Teaching and learning Ultrasound Guided Cannulation- Hands-on Workshop

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This workshop accompanies the oral presentation, “Ultrasound guided cannulation: what do medical students think?”

Intravenous cannulation is the most performed in-hospital procedure and 1 in 3 patients experience difficult IV access. Use of ultrasound guided intravenous access (USG-IVA) has been found to be safer, and more effective than “blind” cannulation, enhancing patient care, improving clinician satisfactions and bringing cost savings. Therefore it’s highly relevant to teach USG-IVA to all clinicians working in acute settings and to those who teach.

73% of medical schools in the United States using ultrasound in their curricula compared to 7% of UK medical schools (as of June 2022), it is clear that some nations have some way to go to catch up.

Here we present our approach to the design, development and delivery of a novel USG-IVA course. We will showcase our bespoke learning materials to delegates before giving participants hand-on access to equipment and try the skills for themselves. We will begin with a summary of the theory including basic ultrasound physics, machine controls, contextualized within an overview of point-of-care ultrasound (PoCUS). Then we allow time for delegates to undertake the skill with expert supervision, allowing for individualised feedback.

We will lead participants in considering how to use effective mastery learning principles, to deliver such a program. There will be ample time for discussion on how the skill and learning session could be incorporated into their curricula. Participants can draw on the presenters’ experiences of challenges and potential solutions. This session will be delivered in collaboration with ‘TruCorp’ (a commercial sponsor with expertise in ultrasound phantoms) who are kindly providing the models for this hands-on workshop.

Summary

By the end of the workshop delegates will understand the value of USG-IVA, how it can be integrated into a curriculum, and begin to learn the skill for themselves. They will have the opportunity for hands-on experience of relevant equipment and to speak to experienced clinicians and discuss implementation strategies.

Additional Information

Description of the workshop objectives

Workshop Objectives:

- Describe the value of USG-IVA
- Identify the underpinning knowledge base for US skills
- Develop hands-on skills in USG-IVA
- Experience a range of phantoms and US devices
- Articulate the potential challenges of integration into their own curricular context
- Consider solutions and options to overcome challenges
- Apply pedagogic principles to create their own blueprint for introduction in their context

Intended audience (experience level and pre-requisites)

All healthcare professionals and educators can join this workshop. No prior experience of ultrasound is needed. Participants should have a good understanding of peripheral venous cannulation (without ultrasound).

Instructor’s qualifications or prior experience in similar presentations

The presenters/ instructors are experienced emergency physicians with established expertise both in the practice of USG-IVA as well as instructional design and extensive delivery of this skill to novices. They regularly deliver simulation and ultrasound skills to a wide range of healthcare professionals at undergraduate and postgraduate levels.

Maximum number of participants in the proposed workshop

32 suggested participants will allow optimum access to the equipment

Oral 139

Fancy some MINTS? The development of a postgraduate interprofessional course to promote an understanding of non-technical skills and human factors

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Background

Healthcare is a complex system that requires the interaction of multiple healthcare professionals. It is recognised that a significant proportion of adverse events in healthcare result from failures of non-technical skills within teams. Practice-based methods such as simulation have been recognised as an effective method of non-technical skills training in other industries. This method has been adopted by surgical and anaesthetic disciplines with historically less engagement from internal medicine specialties¹.

The UK Foundation programme and Stage² medical training curricula now include General Professional Capabilities pertaining to non-technical skills (NTS) and human factors (HF). Standardised methods of delivering education relating to these subjects within internal medicine are limited across the UK.

Methods

We redesigned our existing half day medical interprofessional non-technical skills simulation course (MINTS) to align with postgraduate medicine training curricula requirements relating to non-technical skills and human factors (Foundation programme and Stage 2 internal medicine training). Intended learning outcomes were delivered through a combination of simulation and workshops. Feedback obtained from candidates and interprofessional faculty over a 6 month period was utilised iteratively to refine the course to achieve the learning objectives. Pre and post course questionnaires have been developed to capture baseline data relating to knowledge of NTS and HF between interprofessional groups.

Results and Discussion

Our course aims to address the current gap that exists within the UK with regards to formalised training relating to non-technical skills and human factors for stage 2 internal medicine trainees. The interprofessional aspect promotes an understanding of collaborative working and introduces strategies to enhance non-technical skills within teams. Questionnaire data will be further explored over the next 6 months. The course provides a forum for further research to explore interprofessional decision making.

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Workshop 141

Global citizenship skills in the health professions: Setting up a Collaborative Online International Learning Program

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Introduction & aims

The complexities of globalisation, transnational health issues, and the rapid pace of geopolitical changes underscore the necessity of equipping the future healthcare workforce to tackle global healthcare challenges. Collaborative Online International Learning (COIL), developed by the State University of New York, presents an innovative alternative to traditional student mobility or exchange programs. COIL offers valuable and enriching opportunities for learners to collaborate with international partners across borders, irrespective of personal or economic limitations. This approach features a shared syllabus, co-created and co-taught by faculty from different countries, focusing on experiential and collaborative student learning. COIL promotes partnerships, enhances cultural sensitivity, and helps break down global hierarchies.

This workshop will guide participants in designing an intercultural, interprofessional, and international COIL program tailored for pre-registration healthcare courses.

Learning objectives

By the end of the workshop participants will be able to:

- Identify common features of a COIL program based on the literature
- Examine the enablers and barriers to implementing COIL
- Explore methods to recruit potential international partners
- Discuss the steps of quality education design for COIL using the 4Ps model of curriculum development (presage, planning, process and product)
- Design an outline for a COIL program

Session description (planned activities)

- Overview of key definitions (content delivery)
- Provision of interactive examples of COIL teaching approaches
- Brainstorming activity on challenges associated with COIL including strategies to overcome them: what works / what to avoid
- Overview of the 4Ps model of curriculum design (content delivery)
- Small group work on designing their own COIL program

Educational methods

The workshop will employ interactive small group methodologies such as discussions, brainstorm activities, paired exercises, and small group practical 'hands on' activities to develop participants' knowledge and skills in creating a COIL program.

Expected impact

Participants will have the opportunity to produce an outline of a COIL program using a well-established education framework aligned to their own educational context.

Target audience

Pre-registration course planners and teachers

Level (introductory/intermediate/advanced)

Introductory to advanced (all levels)

Maximum number of participants

30-40

Workshop Facilitators

Professor Debra Kiegaldie: PhD, MEd, BEdSt, IntCareCert, RN, MACN

Debra has over three decades of experience in health professional education within higher education. She has also led numerous successful workshops at international conferences.

Melissa Ciardulli: PhD (Cand), MAdEd, AdvClinNur, BNAppSci (Nursing) RN
Melissa has a background in paediatric ICU nursing and has over many years of experience in simulation and health professions education. She has presented her work at both national and international conferences.

Safae Nour El Hadi: RN, MSN (Nursing & Midwifery Sciences)

Safae works as a critical care nurse at the Azienda Ospedale Università Padova in Padua, Veneto, Italy. She has recently completed her Masters and now works as an academic for the Università degli Studi di Padova.

Over the past four years, Debra and Melissa and more recently Safae have spearheaded and contributed to two major government-funded COIL projects, collaborating with partners in Australia, Canada, Italy, Malaysia and Malawi.

Round Table Discussion Group 143

Should we learn from byte-sized patients?

Darren Lee, Maxine Te

Australian Physiotherapy Council, Richmond, Victoria, Australia

Generative Artificial Intelligence (GAI) technology has progressed at an exponential pace, offering transformative opportunities for educators and professional accreditation bodies in the education and assessment of clinical competence. As GAI becomes more sophisticated, the technology can be leveraged to enhance learning experiences and make assessments more efficient and robust. The Australian Physiotherapy Council (the Council) is exploring these innovative uses of GAI - particularly, it has commenced a project to create virtual patients to evaluate their capabilities and relevance in the education and training of physiotherapists. These "patients" are interactive, dynamic, and mimic the portrayal of a diverse range of clinical conditions, with customisable degrees of scenario complexity. The recent integration of conversational voice and voice recognition models in GAI platforms further enhance these capabilities and allow for a potential learner to engage with the "patients" in real time and receive realistic feedback. GAI algorithms can also "extend" scenarios beyond the initial instructions/prompts, providing potentially an infinite array of possible scenario variations. These capabilities can mean future education, training and assessment of physiotherapists can be more flexible, comprehensive, and accessible - ultimately leading to graduates that are more prepared for the complexities of the contemporary patient population.

However, several critical questions remain regarding the use of GAI in this context. This roundtable discussion aims to provide a platform for a robust discussion and debate on

1. the practicality of using GAI for clinical education and assessment, particularly for the purpose of creating virtual patients;
2. the ethical issues that arise as a result of the use of GAI for teaching, training, and potentially assessment, and;
3. the risks - and potentially yet unrealised opportunities - that can present particularly, considering the trajectory of GAI technology development.

Clear description of the Roundtable Discussion Group objectives

The main objective of this Roundtable Discussion Group is to debate the controversial issues that currently surround the use of GAI in education. The secondary objective, through presentation of the Council's work in this area, is to provide the audience with potential takeaways in the form of opportunities for ideation, and potential collaboration with the Council in development of new methods of teaching, training and assessment.

Intended audience (experience level and pre-requisites)

The discussion is suitable for a general audience; however it would be advantageous if there is prior experience with GAI, simulation-based teaching, or simulation-based assessment.

Summary of the instructor's qualifications or prior experience in similar presentations

Darren Lee is the former General Manager, Assessment, and currently General Manager, Innovation and Research at the Australian Physiotherapy Council. Darren has over a decade led the constant evolution of practice competency assessments at the Council and is currently leading a major transformation of its assessment suite for overseas qualified physiotherapists - including exploring how GAI will eventually integrate within the new processes.

Workshop 144

Developing Clinical Reasoning: A practical workshop

Lucy-Jane Grant

Bond University, Gold Coast, QLD, Australia

For many of us who practice medicine, the clinical reasoning process seems implicit, i.e. a subconscious, or even unconscious process that "just happens". For students observing a clinician making a diagnosis at the bedside, it appears to be some sort of magic, and for most clinicians, it is difficult to explain the process and show that it is not actually magic, but a fascinating amalgamation of art and science.

Clinicians rely heavily on bedside teaching to convey this blend of cognitive skills, hoping that by observation, students will gradually understand the complex analytical processes involved in developing an accurate understanding of what ails the patient.

There is no replacement for bedside teaching. Students who are equipped with a sound understanding of the processes involved in clinical reasoning may find the bedside experience more valuable, and easier to learn from than students who have had no pre-clinical clinical reasoning grounding.

There is good evidence that poor clinical reasoning leads to medical error. Introducing structured Clinical Reasoning teaching in the pre-clinical program will enhance the ongoing acquisition of clinical reasoning skills during the subsequent clinical years which clearly has positive implications for patient safety.

Using best-evidence research in clinical reasoning education, we have devised a series of developmental workshops for Year 3 students who are in the bridging year between the foundational (6 semesters) and clinical (two-year MD) phases of an undergraduate medical program. Students attend a lecture during which the theoretical material underpinning diagnostic reasoning is discussed. They are then encouraged to join a workshop and practice in small groups with a trained clinical facilitator. Each student attends 1-2 workshops per semester.

During the clinical reasoning workshops, students are encouraged to retrieve prior learning, and to develop deeper learning as they apply and extend their knowledge. Students are delighted when they realise that all their Anatomy, Physiology and Pathology knowledge can be applied to the clinical reasoning process. We anticipate that as they enter the clinical years, they will be able to apply their newly acquired skills in different contexts and scenarios when interacting with patients.

The conference workshop will explore one of the Year 3 workshops our students participate in.

Workshop Objectives

1. Review the terms, concepts and frameworks underpinning clinical reasoning theory
2. Experience the clinical reasoning workshop by active participation.
3. Provide feedback on the workshop.

Intended audience

Any clinician involved in or intending to become involved in clinical reasoning education. A pre-workshop information sheet will be provided prior to the workshop.

Number of participants

30-40

Instructor

1. Dr Lucy-Jane Grant

Oral 145

Teaching Clinical Reasoning to Novices using Medical Language as a tool

Lucy-Jane Grant

Bond University, Gold Coast, QLD, Australia

Clinical Reasoning can be thought of colloquially as “how doctors think”. Linked to how we think is how we speak, i.e. the language we use to communicate with colleagues. Having a commonly understood medical language is important for patient safety. There are terms that simply have no replacement such as some anatomical names and eponymous syndromes. There are syndromic terms that convey specific information, e.g. acute coronary syndrome, more accurately than a long -winded sentence describing a patient’s chest pain.

There is another purpose to our medical language. It can be used as an instructional tool. While ‘talking like a doctor’ does not equal thinking like one, learning the language can be viewed as a vital prerequisite to developing clinical reasoning.¹ For this reason, at the start of their clinical reasoning journey, Year 3 students in the Bond University Medical Program are provided with patient presentations using lay language and are asked to practice ‘translating’ them into problem presentations using semantic qualifiers. Problem presentations can be regarded as ‘structured and actionable descriptions of a patient problem’.¹

In our curriculum, we refer to them as ‘who, what, when’ statements. Later in their journey, these problem presentations become tools which may help students and junior doctors develop relevant diagnostic hypotheses and to retrieve related illness scripts. This process supports the development of strong connections between foundational and clinical knowledge, which in turn produces better diagnosticians^{2,4}.

Encouraging students to think aloud using medical language and to articulate problem presentations with consistent use of semantic qualifiers and medical terms are methods that the literature supports as being good tools for fostering early clinical reasoning.³

This presentation will describe our experience introducing this tool, and how we hope to evaluate its effectiveness.

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Workshop 147

The Rehabilitation Entrustable Enabler Skills (TREEs)

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Background

The Rehabilitation Entrustable Enabler Skills (TREEs) project introduces a set of Entrustable Professional Activities (EPAs) and corresponding assessment tools, integrated into the inaugural Master of Health Sciences in Rehabilitation Nursing Programme (MHSc Rehab Nursing) in Singapore. As EPAs are becoming more common in nursing education to improve competency-based training and ensure that nurses are well-prepared for the responsibilities of their roles, the need to develop EPAs is apparent. This initiative is spearheaded by a multidisciplinary team comprising academic programme leaders, senior clinical nursing education leaders, and Advanced Practice Nurses in Rehabilitation. The EPAs and assessment tools are designed with a learner-centered approach and a holistic patient care philosophy. These EPAs are currently used in clinical training and assessment.

Learner-Centered Approach

The MHSc Rehab Nursing programme, structured as a work-study model, and the first of its type in Singapore, offers continuing education for nurses who balance work commitments with their studies. The assessment methods are seamlessly integrated into clinical workflows, acknowledging each learner's prior clinical experiences and unique practice contexts. This approach allows learners to negotiate their learning and assessment pace and focus areas with their clinical preceptors.

Holistic Patient Care Philosophy

The project adopts a holistic patient care philosophy, utilizing case scenarios of individuals with rehabilitation needs to generate critical questions that shape the EPAs. In managing a patient's rehabilitation needs, the team considers:

- The patient's capabilities and rehabilitation goals
- Potential emergencies during rehabilitation
- Social and family support systems
- Seamless care transitions across different settings
- Empowering patients with self-care abilities to adapt to new normalcy
- Reflective practices for rehab nurses to evaluate care encounters and procedures

EPA Blueprint

The EPAs, encompassing key activities, competencies, knowledge, skills, attitudes, and experiences, were mapped to the student's clinical learning journeys. Workshops are conducted to train Clinical Assessors, including nurse clinicians, physiotherapists, occupational therapists, speech therapists, dieticians, and rehab medical doctors, to assess students in their workplaces.

Workshop Objectives

- Understand the EPA development journey
- Comprehend the Rehab Nursing EPAs and assessment methods
- Apply Rehab EPAs and assessment tools in case studies

Workshop Outline

- Introduction to the MHSc Rehab Nursing Programme
- Sharing of Rehab Nursing EPAs and assessment tools
- Hands-on application of EPAs to case scenarios

Participant Requirements

- General medical/surgical clinical nursing experience
- Preferred: Clinical education experience (precepting, mentoring) and rehab nursing experience
- Academic faculty interested in work-study programmes and EPA development are welcome

Oral 148

Collaborative Learning: Redefining Feedback in Clinical Placements

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Background

Clinical placements are core experiential learning opportunities for healthcare students to have a capstone experience and are a fundamental requirement for meeting clinical competencies prior to graduation. While most clinical placements focus on development of task-based and clinical reasoning competencies, these placements, which are often time- and resource -constrained, struggle to deliver timely and meaningful feedback to students. This limits student learning capacity and capability within the clinical encounter, often resulting in a suboptimal feedback experience as well as limited opportunity for real-time clinical reflection.

Objective

This project aims to design and evaluate the effectiveness of implementing a self- and peer-review feedback model in the Melbourne Hearing Care Clinic (MHCC).

Method

Final year audiology students and MHCC clinical educators participated in clinical placements which included time for self-reflection, peer feedback, and clinical educator feedback following each appointment. Their perceptions and/or experiences of the model were evaluated using focus groups and surveys.

Results

Students appreciated having a structured feedback process and extra time to deliver or receive feedback in a safe and supportive environment. The process of delivering and receiving peer feedback was overall well received, with peer-to-peer feedback more relevant and actionable than clinical educator led feedback in the same setting. Educating students about the processes of self-reflection and delivering feedback were enablers to successful implementation of the program.

Conclusion

Students and clinical educators agreed that the peer-to-peer feedback program was a valuable process in the audiology clinical experience.

Oral 150

Dual purpose theory and the calibration of clinical examiners: improving reliability with a theory led approach in OSLERS

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Background

The Objective Structured Long Examination Record (OSLER) assesses clinical skills in an integrated manner (1). It is longer in duration and uses real patients and therefore more closely simulates a real clinical encounter. However, clinical examinations may experience low reliability due to way in which clinical examiners construct scores (2). This initiative used theory led design to improve reliability of the final OSLER as part of Hull York Medical School's preparation for the upcoming national licence assessment in the UK. During the pandemic it had become a simulated assessment and on return to part simulated, part real patients, the reliability of the OSLER had decreased. This work aimed to improve the reliability of our 6 x 30-minute station OSLER through theory led clinical examiner training and calibration using clinical reasoning theories. This was based on the authors' experience of observing examiner training and student behaviours related to clinical examinations. A two-step calibration exercise was designed aligned to focussing questions to represent a clinical conversation. The design used dual purpose theory and Stanovich's work to enable examiners to assess within their own reasoning model appropriately orientated to the OSLER based on Yeates paper. (2, 3, 4)

Results

Following the change in calibration process we have seen an increase in the reliability (Cronbach's alpha) of the OSLER change from 0.636 in 2022 to 0.873 in 2023 and 0.861 in 2024.

Conclusions

We have seen a 20% increase in reliability over two consecutive years after introducing a theory led two step calibration exercise. We are actively reviewing our data to establish if this improvement is a result of this intervention. We have demonstrated that the reliability of OSLEs can be improved whilst maintaining authenticity using a theory led approach based on the pedagogy that underpins clinical reasoning.

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Poster 151

Interprofessional development of a clinical competency to improve skills in virtual health care

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Hutchings, Jacqueline Sherry

RPA Virtual Hospital, Sydney, NSW, Australia

The Problem

There has been rapid adoption of virtually delivered health care in the wake of innovations implemented due to the COVID-19 pandemic. Regulatory bodies and health services are starting to provide guidance on education frameworks (1,2) however, specific training in virtual care remains to be developed and evaluated for quality and efficacy.

What was done

An interprofessional approach was undertaken at RPA Virtual Hospital to complete the following:

- A scoping review of current virtual care training resources.
- Identification of relevant clinical skills for clinicians providing virtual care.
- Design of medical, nursing and allied health clinical competencies for provision of virtual care.
- Education of clinicians using the relevant virtual care clinical competency.

Why is the work important

It is recognised that clinical care delivered through virtual platforms requires adaption to ensure the same standard as when provided in person. Educating clinicians to demonstrate competence in virtual care facilitates the safety and effectiveness of the health service. Interprofessional collaborative practice underpins our approach, drawing on diverse perspectives to produce an alignment in quality service delivery.

Evaluation findings

Formal evaluation is proceeding, with preliminary results available for May 2025.

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Poster 152

Virtual HealthCare Services Reciprocal Trainee Observational Visits (vTrEx)

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The Problem

Virtual care services underwent rapid innovation and implementation during the COVID-19 pandemic resulting in increased familiarity and expertise in virtual care. These services are now a purposefully designed and integrated part of the health system, however education in virtual care is not yet incorporated throughout the training of the medical practitioner and represents a significant area of special interest for further development.

What was done

Two virtual care services (RPA Virtual Hospital and Victorian Virtual Emergency Department) collaborated to implement a collegial exchange program for specialist trainees. An observation tool was developed focusing on quality aspects of virtual care. A written report capturing the observations and providing aligned collegial feedback was produced.

Why is the work important

Trainees report the need for enhanced education on virtual care delivery and propose the inclusion of specific training for their specialty [1]. Furthermore, trainees report value in direct observation of and by supervising physicians, with translation of the observed behaviors into improved competence on workplace-based assessments [2]

Exchanges between organizations has the potential to broaden the exposure of trainees to other aspects of telehealth, with interorganizational collaborations outlining telehealth competencies. [3]

Evaluation findings

Feedback on pilot trials of the exchange show a positive experience for the observing trainee and host institution. Further structured evaluation is planned.

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Oral 153

Enhancing obstetrics and gynaecology assessment through hybrid simulation: simulated patients' perspectives

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Background

Medical education in obstetrics and gynaecology involves practising sensitive examinations and procedures on patients, gynaecological teaching associates, and simulation models. Monash University uses a novel hybrid simulation format, the Assessment for Progression Examination (APEX), designed to assess students' progress in obstetrics and gynaecology and offer improvements for practical competency. Though simulated patients have an established role in medical education and assessments, their perspectives on medical students' training to approach the sensitive nature of obstetrics and gynaecology procedures is underexplored.

Aims

This study explores the perspectives of simulated patients on their involvement in the obstetrics and gynaecology APEX.

Materials and Methods

An exploratory study using a phenomenological approach was adopted. Semi-structured online interviews were conducted with ten simulated patients across Monash University Australia and Malaysia. Interviews were transcribed verbatim and data was analysed for emerging themes.

Results

Key themes emerged from the analysis: (1) Simulated patients gained personal benefit from their involvement in the APEX. (2) The APEX more effectively develops and assesses the qualities that women value most in their obstetrics and gynaecology doctors. (3) Simulated patients are well positioned to provide feedback for improving the design of the APEX.

Conclusion

The experiences and perceived value of simulated patients supports them having a more prominent role in obstetrics and gynaecology training, including the development of assessments. Further exploration into the perspectives of medical students and examiners is required for a thorough evaluation of the APEX in the obstetrics and gynaecology setting.

Poster 154

EHR Essentials: Empowering future healthcare professionals with digital proficiency

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Introduction

The National Health Service (NHS) in England is undergoing digital change, aiming to transform healthcare delivery. As future healthcare professionals, undergraduates must be proficient in navigating this digital environment, particularly in using and interpreting electronic health records (EHRs). However, the complexity of EHRs can be daunting, making early exposure and learning during undergraduate education crucial. There is an increasing need for training that addresses the intricacies of EHR usage.

Methods

To address this need, EHR Essentials, an innovative online resource was designed and created for undergraduate healthcare courses including Medicine, Nursing, Pharmacy and Midwifery at The University of Manchester. To evaluate its performance and refine its development, an online pilot was conducted with students to test the resource's usability and gather preliminary feedback.

Results

A multidisciplinary team of learning technologists, digital health scientists, and healthcare professionals collaborated through an iterative design process to create EHR Essentials. The results of the pilot will be shared including valuable insights into usability data, and content feedback. This will include both quantitative and qualitative feedback and practical suggestions for change.

Conclusion

As the first learning package at our university designed to fill this curriculum gap, EHR Essentials shows great potential. The pilot data will be used to further refine the package prior to implementation, aiming to better prepare students for the digital future of healthcare. The insights will also guide the development of a second package designed to teach EHR-related skills in a practical setting including handover skills and documenting MDT discussions.

Round Table Discussion Group 155

How ePortfolio Use in Medical School Enhances the Reflective Practice of Medical Students

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Portfolios, both electronic and paper-based, can be used to foster reflective practice, which is essential for personal and professional development (Tan et al., 2022). However, despite their widespread use, how ePortfolios enhance the reflective practice of medical students remains unclear, largely due to the context-sensitive nature of portfolios (Babovič, Fu and Monrouxe, 2019). We carried out a realist evaluation amongst final year medical students to understand how ePortfolio use in medical school improves reflective practice to extend current knowledge on this topic. Preliminary findings from our study suggests that factors for enhancing reflective writing include:

Institutional Context

Early exposure and mandated reflections lead to increased confidence and engagement with reflective practice. However, previous studies suggest that mandating reflections makes some students write reflections as a tick-box exercise (Lefroy et al., 2021). The true value of such forced reflections will be debated by participants at the roundtable discussion.

Personal Development Tutors (PDTs)

Reflective discussions with trusted, invested tutors broaden perspectives and fosters reflective practice. In alignment with previous studies, some students found reflective discussions with peers, PDTs and supervising clinicians of more value than written reflections (Lefroy et al., 2021). Participants at the roundtable discussion will discuss ways to capture these reflective conversations and ensure confidentiality without stifling these beneficial conversations and still meet the need to evidence reflective practice.

ePortfolio Platform

A repository of longitudinal evidence creates a sense of accomplishment, while reflective templates help students structure their thoughts, leading to proficiency over time.

Student Factors

Internal motivation plays a key role in sustained engagement with reflective writing, but external motivation can also foster reflective writing. However, with increasing awareness of neurodiversity, we wonder how eportfolios can be made flexible to accommodate the needs of neurodiverse individuals who may struggle with writing reflections and building an eportfolio. Participants will discuss the controversial areas

to help us and educators in other settings understand how to maximise the benefits of the eportfolio system.

Roundtable Discussion Group Objectives

To strengthen our understanding by discussing the following questions:

1. Do mandated reflections truly enhance learning, or are they just bureaucratic exercises?
2. How can eportfolios be adapted to accommodate the needs of neurodiverse students?
3. How can reflective conversations be evidenced without stifling the conversations and whilst ensuring confidentiality?

Participants will also discuss what has worked or not worked in their institutions with the hopes that what works can be replicated in other settings.

The three facilitators will have one question each and rotate around the tables at set time points. In a final plenary session, the facilitators will summarise the discussions from the tables.

Workshop 157

Socio-materiality as a lens to review clinical assessments

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Background

1. Observed Structured Clinical Examination (OSCE) is often utilised in assessment of clinical skills of health professional students. Recognition of social and material aspects (socio-materiality) of learning and assessment often get ignored in medical education; even though these are crucial components of assessments, they are seen as background objects, with lack of acknowledgment of their existence (1).

2. Why is the topic important for research and/or practice?

Change has occurred in human communication (such as online meetings/ work from home, online medical student teaching/assessments) which brought into focus the importance of material objects and human connections; especially in the context of OSCE/ online assessment where both social communication (such as history taking, counselling, prescribing) and objects/ tools (physical exam, tests, technological devices, setting and surrounding materials) are required. This workshop will assist participants gain understanding of socio-materiality in clinical assessment with a view to improve the examination process. They will get insights into various components of socio-materiality - including assemblage, agency, emergence, practice, symmetry and constitutive entanglements between the social and material forces.

3. Workshop format, including participant engagement methods

Participants will be offered a mock OSCE station transcript and a video of the OSCE to review socio-materiality in small group tasks of 5-6 participants. They will be asked to consider aspects of socio materiality in their respective groups and how it may impact student learning/ performance.

4. Who should participate?

- Course providers, examiners and health professional educators involved in formative/ summative clinical assessment.
- Students who may wish to develop understanding of clinical assessment.

5. Level of workshop (beginner/intermediate/ advanced) suited to all levels from beginner to advanced.

6. Take-home messages / workshop outcomes

By participating in the workshop, health professional educators/students will gain insights into the impact of social factors (patient/ peer/ colleague interactions) and materials

like technology (computers/ tablets used for assessment tasks) and other objects (like layout of the room, furniture, such as patient couch, curtains, desks, stationary items, clinical exam tools, and printed information like blood test results, radiological investigations, prescriptions, protocols, patient information sheets). They may get insights and take-home skills to improve assessment design through the group tasks and interactions with other participants.

7. Maximum number of participants
40 participants

Reference

Fenwick T. Sociomateriality in medical practice and learning: attuning to what matters. *Med Educ*. 2014 Jan;48(1):44-52. doi: 10.1111/medu.12295. PMID: 24330116.

Oral 158

Competency based assessment of physical examination - A simulated patient perspective

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Background

Patient perspectives are rarely incorporated in student learning especially in a formal assessment. Patients are well placed to comment on the clarity of a student's communication and how comfortable they feel with the student's bedside manner(1).

Summary of work

We sought a mechanism to enable patient perspective feedback for 500 final year medical students. We introduced a slower-paced competency-based Assessment of Physical Examination (APEX) skills using trained Simulated Patients (SPs) as a more accurate and educationally powerful assessment compared to an OSCE station. SPs were examined by students and contributed to feedback discussion with assessor (senior doctor) and student at the end of each assessment. The qualitative study follows a social constructionist viewpoint where knowledge is co-created with SPs, who were recruited and interviewed to capture thick descriptions of patient perspectives. The interviews were recorded verbatim, and transcripts thematically analysed (2).

Results

The five key themes were - Collaborating with examiner (felt they could add value with feedback but with hesitancy about what aspects to comment on), collaborating with students (providing feedback to students such as response to patient concerns/pain or appreciating kindness and empathy) authenticity of doctor-patient interaction, APEX assessment characteristics and SPs' motivation to assist in student transition to becoming thorough, responsive, empathetic and caring doctors.

Discussion

We present a feasible way to incorporate patient perspective feedback into assessment. SPs appreciated the role and were comfortable to contribute alongside an experienced clinical examiner, that has led to creating exam preparation materials for students.

Conclusions

SPs have a role in giving feedback to students in a summative exam setting and can assist examiners in assessing students.

Take-home message

SPs can be trained for providing feedback to medical students especially for communication skills and empowered to assist examiners in assessment.

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1. WykurzG, KellyD. Developing the role of patients as teachers: literature reviewBMJ 2002; 325 :818 doi:10.1136/bmj.325.7368.818
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Oral 159

The past, present and future of neonatal and paediatric open airway skills training

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Neonatal and paediatric open airway skills are high stakes procedures. They are often only seen in highly specialised centres and even here, the numbers of procedures may vary leading to challenges in surgical training.- open airway reconstruction is such an example. Similarly, an emergency neonatal tracheostomy may occur rarely but every head and neck surgeon would be expected to perform this if the situation arose. It is also being considered as a competency for completion of surgical training even though access to train for this scenario is rare. Training for these skills has in the past adopted a surgical apprenticeship model with surgical fellowship training in specialised centres- there is still no substitute for this real life experience. However, access to this option is limited. The use of cadaveric models and live animal operating in specified courses has become increasingly popular- this method that is presently being used has opened up the access to training in these specific airway skills. Face and content validity have been established.

The future however, lies in the methods of 3D printed models to widen access further. This is also considered a more palatable option to many who object to the use of animals for training purposes. These models have been used in preliminary courses with favourable outcomes and the real feel is likely to improve further with technological advances.

Please note that data collection for 3D models is current and ongoing. The abstract has therefore been submitted as a descriptive presentation of the changing face of surgical skills training.

Workshop 161

Top tips for promoting and embedding positive professionalism through medical education

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Professionalism is a requirement across all healthcare disciplines yet remains challenging to teach and difficult to evidence. Professionalism, as a subject matter, is increasingly recognised in undergraduate and postgraduate formal curricula, where historically, it has sat in the hidden curriculum space. The learning of professionalism is often complicated by its association with negative connotations and focus only being given to the topic only when it lapses. The presenters have strong medical education interests and experience in the teaching, learning and assessment of professionalism in inter-professional settings. They have used their extensive experience, collaborative work and the current literature to develop practical top tips to promote professionalism in medical education. The workshop will use a recently published 'practical tips' article to structure an interactive and dynamic inter-professional discussion around the current barriers and enablers to embedding professionalism in medical education; in under and postgraduate settings, into curricula and into clinical placements. The workshop will focus on changing the narrative of professionalism learning to that seen from a positivist lens, to further embrace a change in culture and improve the learning, teaching and assessment of professionalism in practice. By working through the practical tips, supported by an in-depth knowledge of the current literature, sound educational theory and appreciation for the daily challenges of clinical practice, the presenters aim to support other institutions, educators and clinicians to embed and promote professionalism in a positive, constructive and pedagogical way whilst troubleshooting perceived and experienced barriers. The workshop will guide educators to consider innovative strategies and modern educational thinking but also caution attendees to challenge preconceived ideas on how this topic is best presented and embedded in curriculums.

Workshop outline

0-10 min Introductions/housekeeping

10-20 min Ice-breaker

20-30 min Background literature and introduction to top tips

30-45 min Top tips 1-4; introduction to tips and small group facilitated discussion/large group feedback

45-60 mins Top tips 5-8; introduction to tips and small group facilitated discussion/large group feedback

60-75 mins Top tips 8-12; introduction to tips and small group facilitated discussion/large group feedback

75-85 mins Large group discussion - "want, a wish and a wonder" - what is still needed to truly embrace professionalism learning in medical education?

85-90 mins Close and questions

Workshop objectives

- Summarise the current literature and research in this area of medical education.
- Share practical tips to embed professionalism into medical education curricula and clinical placements.
- Discuss the enablers and barriers to embedding the practical tips presented and troubleshoot recurring themes.
- Consider the future of professionalism in medical education.

Summary of instructors qualifications/prior experience

The presenting team have vast experience in delivering workshop, round table and oral presentations at ICSC and at other international medical education and simulation based conferences. The presenters are all senior members of medical education faculty at local, regional and national levels in both undergraduate and postgraduate fields. Many of the presenters are expert simulation based education debriefers and are experienced at embracing dynamic and fluid conversations.

Maximum number of participants

45

Poster 162

Students' participation in implementation of a new EPA framework in undergraduate medical education

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In 2021 all medical programs in Swedish medical universities adopted new curricula to adjust to the regulations of the European Union. After this change, the ending point of all Swedish medical programs is a license to practice instead of a medical degree only. This requires programmatic assessment of clinical skills to secure the adequate level of competencies. In the developing process a nationwide framework of clinical skills built on Entrustable Professional Activities (EPAs) was launched to secure comparable medical programs. The national EPAs consist of 10 principal EPAs with up to 10 sub specifications each. A total of 160 students in the beginning of year 3 (internal medicine) were asked to estimate their level of performance during clinical training of all national EPAs using the national scale. The questionnaire will be repeated at the end of year 3 to assess progression measured by self-assessed performance. Experienced teachers and supervisors fill in a similar questionnaire. Non-congruent answers between students and teachers will be further analyzed to shed light over competencies that need more attention during clinical training. The results will also be used as a scaffold to facilitate implementation of nationwide EPAs. Our take home message is that student involvement facilitates implementation of paradigm shifting changes.

Oral 163

Using simulation to teach Challenging Communication at Imperial College School of Medicine (ICSM) integrating reflection, medicolegal issues and professionalism

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Background

Responding appropriately to challenging conversations is integral to the professionalism required for clinical practice and is underpinned by understanding the legal, ethical and professional framework in which clinical care is delivered. At ICSM we have designed teaching around challenging situations in Ys 2/3/5. In Y5, teaching is delivered to students on their oncology placement, using small group teaching (3/4 students) with one professional actor and two tutors (clinical/non-clinical). The teaching is designed to help students become familiar with challenging situations in a 'safe environment', consider the professional and medicolegal dimensions of a scenario and how these may impact on the interaction. Managing strong emotion, distress and anger and developing strategies of self-care and reflection are discussed.

Outline of work

The sessions begin by exploring students' experiences of challenging communication whilst on placement. Students are encouraged to reflect on observed discussions and emotions evoked. Ethical and professional dimensions of challenging situations are explored alongside a framework for breaking bad news. Students then role-play real-life scenarios, involving interactional challenges, medicolegal issues and broader aspects of professionalism, followed by focussed feedback.

Evaluation Findings

Qualtrics was used to evaluate the sessions during 2023-24 (N=240) asking students to rate the sessions (1-5) using a number of statements at the end of teaching. Students found sessions helpful (4.77/5); following the sessions they were able to recognise potential challenges of BBN (4.73/5), have an understanding how to structure challenging discussions (4.55/5) and feel better prepared to support themselves after such discussions (4.4/5). Qualitative responses show students would welcome further training.

Conclusions

The sessions provide a safe, non-judgmental space to practise skills used in challenging situations. Embedding clinical communication teaching in real-life scenarios facilitates the development of core skills such as de-escalation techniques and breaking bad news; the impact of challenging communication on clinicians personally and strategies of self-care, especially as students' real-life clinical exposure increases, are discussed.

Oral 164

Can Simulation Effectively Teach Clinical Professionalism to Medical Students? - A Narrative and Thematic Review of the Literature

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Outline

This review assessed simulation-based medical education (SBME) as a tool for teaching professionalism to undergraduate medical students within the scope of clinical competence. A narrative, systematic approach was deployed to explore available literature from three databases. Relevant studies were collected, critically appraised, and evaluated to draw comprehensive conclusions. Forty articles formed the foundation for thematic analysis. They provided insights into the application of simulation in teaching professionalism, highlighting the associated challenges and limitations, and proposing potential future developments in this educational method.

Background

Professionalism is an integral concept to the practice of medicine and is deemed important by the public and clinicians alike. While some believe that professionalism encompasses every aspect of medical practice, others strive to define it within stricter realms¹. Historically, professionalism teaching has sat within the hidden curriculum space, often disguised within aspects of personal reflection and role modelling². Only recently, has there been an increasing focus on placing professionalism explicitly within undergraduate curriculums³. There is emerging evidence as to novel approaches to teach professionalism; including the potential use of simulation to support explicit and experiential learning⁴.

Results + Findings

Diverse styles of SBME were identified that imparted professionalism to medical students. Key themes were: doctor-patient relationships, professional boundaries, inter-professional collaboration, professional identity formation, role modelling, honesty, managing medical errors, speaking up, challenging stigma, and awareness of culture and personal bias. These themes were explored in depth and secondary concepts discovered within. Novel approaches of simulation methodology (hybrid simulation) were also noted within the clinical skills context of professionalism and demonstrated that SBME can develop clinical education beyond that of traditional technical and non-technical skills.

Conclusion

Simulation appears to be an effective tool for teaching clinical professionalism to medical students. The value however, in comparison with traditional professionalism pedagogies, or in combination with, requires further evaluation.

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- (1) Davey P, Rathmell A, Dunn M, I.I.I., Foster C, Salisbury H, Dunn M. Medical Ethics, Law and Communication at a Glance. 1st ed. Hoboken: John Wiley & Sons, Incorporated; 2016.
- (2) Birden H, Glass N, Wilson I, Harrison M, Usherwood T, Nass D. Teaching professionalism in medical education: A Best Evidence Medical Education (BEME) systematic review. BEME Guide No. 25. Med Teach 2013;35(7):e1252-e1266.
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- (4) Cruess RL, Cruess SR(R, Steinert Y. Teaching medical professionalism. 1st ed. Cambridge: Cambridge University Press; 2009.

Declaration - The above work was completed in partial fulfilment of an MSc in Medical Education from the University of South Wales.

Oral 165

Developing health workforce diversity through rethinking work-based assessment for learning

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Global health workforce shortages continue to be reported, with issues related to recruitment and retention highlighted as playing key roles (World Health Organization, 2016). Simultaneously, diversity in the health professions workforce is limited due to barriers for individuals with disabilities wishing to enter, particularly related to work-integrated learning (WIL) (Tai et al., 2024). Given workforce shortages, along with increased efforts to adopt inclusive practices, there is a need to find strategies for promoting inclusivity in health professional curricula, particularly within assessment, which is a powerful gatekeeper (Finn, Nadarajah & Tai 2024). This presentation will share findings from a study that examined perspectives of key stakeholders engaged with WIL to explore necessary graduate skills and capabilities with a view to informing future WIL assessments for students with disabilities in Australia.

A cross-sectional online survey was employed, administered via Qualtrics, containing demographic and questions providing quantitative and qualitative data around perspectives on skills and capabilities needed by graduates in the health workforce, current assessment practices and experience in assessing diverse students. Across the breadth of health professions who responded (n=33), the majority worked in nursing (8), physiotherapy (8), occupational therapy (6), and medicine (5). Assessment methods commonly used included simulated scenarios, profession-specific standards, direct observation of practice and objective structured clinical assessment (OSCE). A variety of technical and non-technical skills were identified as important for graduates, with communication, critical thinking, emotional intelligence and clinical skills most common. Current assessment processes were identified as lacking in support for diverse students and that rigid assessments disadvantaged some student groups. Ability to employ reasonable adjustments was identified as difficult for practice-based assessments. Health professions are challenged to consider ways to facilitate greater inclusion of diverse students and consider non-traditional career pathways for graduates that may contribute to alleviating some workforce shortages.

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Oral 166

Inclusive dermatology teaching for preclinical medical students

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Aim

To enable preclinical students to become advanced beginners in the assessment of dermatological conditions including skin of colour.

Background

The skin is the largest organ of the body and often assessed for signs of underlying acute and chronic disease. Undergraduate training in dermatology is brief and a majority (83%) of internal medicine trainees feel uncomfortable managing dermatology conditions (1). Clinicians lack confidence in diagnosing and treating skin of colour (SOC) (2). A survey of internal medicine trainees in southwest England found the common conditions of eczema, psoriasis and melanoma were misdiagnosed by 100%, 80% and 60% of respondents respectively (3). Referral rates for lesions in patients with skin of colour are lower than in White patients (3). Ageing populations, particularly in developed countries, are leading to rising rates of skin cancers with around 10% estimated to be affected during their lifetime (4).

Method

A comprehensive workshop was developed encompassing the anatomy of the skin including pigmentation. The relation of skin structure to the origins of pathology was explored. Clinical reasoning assessed commonalities in skin examination and sources of error and bias in diagnosis across populations. Students undertook peer examination of the skin comparing and contrasting findings across different skin tones, nails and mucous membranes. Discussion of pulse oximetry in acute physical signs underlined the importance of inclusion in medical device design while basic dermoscopy facilitated assessment of a skin lesion including the ABCDE rule. Clinical reasoning was elaborated through a self-explanation approach to diagnosis of the same skin condition across differing skin tones.

Results

The presentation will include pre- and post-session evaluation together with free-text student feedback.

Conclusion

We will demonstrate delivery of teaching in an important clinical topic which enables greater student understanding of skin symptoms and signs as well as assessment of an inclusive approach to dermatology.

References:

1. Drucker AM, Cavalcanti RB, Wong BM, Walsh SR. Teaching dermatology to internal medicine residents: needs assessment survey and possible directions. *J Cutan Med Surg.* 2013;17(1):39-45.
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Poster 167

Feasibility testing of a 360o Virtual Reality simulation experience to improve the personal safety of clinicians working in the community

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Clinicians providing care in the community face unique personal safety risks. Virtual reality (VR) is increasingly used in healthcare education(1). However, most research focuses on acute care and surgical skills training, with limited studies addressing decision-making skills in community care(2, 3).

The aim of this study was to explore the feasibility of using VR as a non-inferior replacement to in-person simulation.

Methods

Clinicians and educators from various healthcare specialties collaborated with the University of Sydney to adapt existing simulation scenarios, leveraging in-kind resources for filming, and editing to develop a cost-effective VR experience. Participants (n=118) who attended previous in-person personal safety simulation training were invited to test the VR-based simulation and were asked to rate their experience.

A 7-point Likert questionnaire and thematic analysis of post experience debriefing were used to assess efficacy. Participants were asked to rate realism and immersion compared to in-person simulation, ease of use, comfort, and potential impact on readiness for clinical practice.

Results and Discussion

Direct cost estimations favour the use of VR for scalability reasons. Feasibility testing data informed the design of a randomised controlled trial (RCT) currently taking place comparing in-person and VR simulations for personal safety training.

Conclusion

Results of the RCT will contribute to the growing research on mixed-reality healthcare education. If successful, the VR experience will be adopted to support future personal safety training.

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Oral 168

Feasibility of Implementing Virtual Patients Powered by Generative AI for Enhancing Communication Skills: A Pilot Study in Medical Education

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Communication skills curricula are a core component of medical education with topics and competencies spiralled with increasing complexity throughout the medical curriculum. However, communication skills training is both complex and challenging to analyse and teach (Venktaramana, 2022). Face-to-face practice with simulated participants remains essential for mastering complex communication skills, however providing personalized feedback to learners present logistical challenges. Leveraging modern technology, such as virtual patient avatars, provides a cost effective, easily accessible modality to increase opportunities for repetitive, deliberate practice and accurately document conversations for reflection and evaluation (Stamer, Steinhauser, & Flagel, 2023). According to Butow & Hoque, integrating AI-driven training alongside human facilitators may represent an ideal approach to supporting a learner-centred model of communication skills training (Butow & Hoque, 2020). SimConverse is a virtual patient platform with over 1,000 avatars that helps learners practice communication skills in a safe, feedback-driven environment. It supports skill development through scaffolded learning, allowing learners to gradually practice individual communication components before tackling more complex scenarios (Jumaat & Tasir, 2016). Repetitive practice builds confidence in managing non-verbal, para-verbal, and overall communication skills. The platform's flexibility promotes self-directed learning and equitable access, offering a risk-free space to refine communication skills effectively.

We performed a pilot study to evaluate the implementation of SimConverse into the Year 2 history taking curriculum to improve student engagement, scaffold learning and support future skill development. The objectives of the study were to track learner engagement, evaluate their user experience and satisfaction and evaluate key barriers and facilitators around acceptability, appropriateness, and feasibility to understand how the virtual patient software is received and best integrated into communication skills training. Our pilot project showed promising results, with learners reporting high levels of engagement, enjoyment, and satisfaction, demonstrating the platform's feasibility for communication skills training at scale in medical education.

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Oral 169

Core procedural skills competencies and the maintenance of procedural skills for medical students: a Delphi study

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Background

It is well recognised that medical students need to acquire certain procedural skills during their medical training, however, agreement on the level and acquisition of competency to be achieved in these skills is under debate. Further, the maintenance of competency of procedural skills across medical curricula is often not considered. The purpose of this study was to identify core procedural skills competencies for Australian medical students and to establish the importance of the maintenance of such skills.

Methods

A three-round, online Delphi method was used to identify consensus on competencies of procedural skills for graduating medical students in Australia. In Round 1, an initial structured questionnaire was developed using content identified from the literature. Respondents were invited experts that rated their agreement on the inclusion of teaching 74 procedural skills and 11 suggested additional procedures. In Round 2, experts re-appraised the importance of 85 skills and rated the importance of maintenance of competency (i.e., Not at all important to Extremely important). In Round 3, experts rated the level of maintenance of competence (i.e., Observer, Novice, Competent, Proficient) in 46 procedures achieving consensus. Subjects: Thirty-six experts representing medical education and multidisciplinary clinicians involved with medical students undertaking procedural skills.

Results

Consensus, defined as >80% agreement, was established with 46 procedural skills across ten categories. The importance for medical students to demonstrate maintenance of competency in procedural skills was assessed on the 6-point Likert scale with a mean of 5.03.

Conclusions

The findings from the Delphi study provided critical information about procedural skills for the Clinical Practice domain of Australian medical curricula. The inclusion of experts from medical faculty and clinicians provided opportunities to capture a range of experience independent of medical speciality. These findings demonstrate the importance of maintenance of competency of procedural skills.

Oral 170

Using safety criteria to develop insight in undergraduate medical students to perfect procedural skills performance

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Background

A major aim of the WHO and Australian Commission on Safety and Quality in Health Care is to embed safe practice teaching in medical curricula. Currently, there are limited Australian data and insufficient evidence regarding the best approach to ensure medical students are 'safe' in terms of procedural skills to practice independently and safely in the clinical environment. Assessing safety practices in procedural skills is currently limited to OSCEs and ITAs (in training assessment).

Summary of work

This study investigated the use of a competency DOPS-type assessment tool for assessing patient safety aspects during formative procedural assessments. The tool included criteria relating to risks to patients such as communicable diseases, exposure to hazardous materials, needle stick and sharps injuries. This format allows discussion points to be raised with medical students, so they reflect on their procedural skills performance during formative assessments. Tutors are in an ideal position to provide guidance, encouragement and evidence-based information about hitherto unrealised safety aspects of procedural skills during an observed performance. It is anticipated that identification of patient safety issues during procedural skill acquisition and assessment in a simulated environment will translate into a reduction in accidental injuries and infections (i.e., in the clinical setting).

Summary of results

The additional components in the DOPS-type assessment permitted an algorithm to determine the risk of harm to a patient that aided the discussion with students. Analysis indicated good construct validity and reliability consistent with procedural assessments.

Conclusions

In highlighting safety criteria during discussion of the procedure allowed medical students opportunities to reflect how safely they performed their procedural skills. Taking this forward, the modality of learning with formative assessment could be analysed with respect to clinical incidents to determine whether there is a measurable improvement in student performance.

Oral 171

Learning together for action on diabetes: A novel interprofessional learning experience for dietetics, nursing, pharmacy and podiatry students

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Introduction/Background

Interprofessional collaboration is crucial for delivering high-quality clinical care to individuals living with diabetes. Interprofessional learning (IPL) in pre-registration education is important for diabetes management because it equips health care students with skills and knowledge to work effectively in healthcare teams. While many reported IPL initiatives focus on medicine and nursing, many other health professions are involved in diabetes management. In response to this, an IPL experience was developed for dietetic, nursing, pharmacy and podiatry students to collaboratively address diabetes care.

Methods

Experienced clinical educators from four professions teamed with the Faculty IPL lead to collaboratively design an IPL experience focused on diabetes management. This was structured around four key themes: person-centred care, role understanding, collaboration within and across teams, and interprofessional communication. Stakeholder input ensured content accuracy and relevance to current practice. The IPL experience included online pre-learning and a two-hour interactive workshop that reinforced core themes and facilitated interprofessional collaboration. Educators observed teamwork behaviours and recorded their reflections, identifying key themes.

Evaluation/Results

The IPL workshop brought together Nursing (n=338), Pharmacy (n=276), Podiatry (n=9), and Dietetic (n=77) students to collaborate on diabetes case scenarios. Group size played a significant role; smaller groups encouraged more balanced participation and deeper discussions. Larger groups were dominated by a few members. Pre-existing student relationships influenced dynamics, sometimes leading to exclusive interactions. Gender differences were noted, female-dominated groups promoted more inclusive discussions. Effective facilitation strategies, such as redirecting questions and fostering a safe environment, were crucial in encouraging collaboration amongst students.

Conclusion

The IPL workshop effectively enhanced teamwork and communication skills in diabetes care across diverse health professions. Small, balanced groups promoted better participation; varied with pre-existing relationships. Facilitation was key to fostering collaboration. Given its success, the workshop will be evaluated and refined for annual delivery.

Oral 172

Advancing Interprofessional Collaboration in Emergency Preparedness: Insights from the 2024 Charmhaven Simulation Exercise

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This interprofessional simulation, conducted at the Charmhaven Rural Fire Service Control Centre (NSW, Australia), demonstrated a dynamic collaboration between NSW Ambulance, NSW Rural Fire Service, Volunteer Rescue Association, Central Coast Local Health District, and medical students from the University of Newcastle. The exercise aimed to improve teamwork, communication, and emergency response efficiency across healthcare and emergency services.

Structured into two key phases—morning skills sessions and afternoon scenario-based simulations. the exercise provided participants with hands-on training in critical emergency skills. Sessions included traumatic cardiac arrest management, virtual fire exercises, vehicle extrication, and crew resource management, each facilitated by relevant agencies. Medical students assumed roles as simulated patients, gaining valuable exposure to the perspectives of emergency responders and an appreciation of the challenges of interprofessional teamwork.

The afternoon sessions incorporated high-stakes, real-world scenarios, such as motor vehicle accidents and structure fires, leading into a simulated emergency department managed by Central Coast Local Health District. Pre- and post-simulation surveys revealed an 18.4% boost in teamwork confidence, with 92% of participants reporting greater readiness for real-life emergencies. Feedback emphasised the value of more frequent interprofessional training to tackle communication challenges and enhance team dynamics.

The Charmhaven Exercise 2024 underscored the critical role of interprofessional learning in emergency response and highlighted areas for future improvement. Recommendations for refining the training structure include enhanced debriefing processes and strategies to increase participant engagement during high-pressure scenarios. These findings contribute to a growing body of evidence supporting interagency collaboration as a cornerstone of effective emergency preparedness.

Oral 173

Collaborative action on diabetes: Designing an interprofessional learning program for nursing, pharmacy, dietetic and podiatry students

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Interprofessional collaborative practice (IPC) in healthcare is essential for driving high-quality patient care and improving health outcomes. Interprofessional learning (IPL) in pre-registration health professions education is crucial for preparing future healthcare professionals to work collaboratively in diverse teams. Despite growing evidence for IPL and IPC, detailed reporting on IPL design and implementation processes is often lacking, hindering the advancement of IPL scholarship.¹

Allied health teams play a vital role in managing diabetes, and early collaboration among these professionals can maximise practice effectiveness. This presentation describes the collaborative design process used to develop and deliver a novel IPL program called, 'Action on Diabetes' for nursing, pharmacy, dietetic and podiatry students. The educational design was based on a faculty Collaborative Care Curriculum Framework emphasising person-centred care, role understanding, interprofessional communication and collaboration within and across teams. Given the complexity of designing IPL, the 4Bs and 4Ps model of IPL design² was used to highlight key aspects necessary for successful program design and delivery. Key features included demonstrating benefits to all stakeholders, building on existing links and basing education on best evidence approaches. The 4Ps focused on Presage & Planning (learning context, and learner and teacher characteristics), Process (the education program) and Product (evaluation of outcomes).

The 2-hour program involved multiple stakeholders including patient consumers, faculty, teachers, diabetic educators, students, and peak national and statewide organisations that govern diabetes policy, research and management. The co-designed program was successfully delivered to approximately 632 intermediate-level students. The IPL focused on effective communication between allied health teams and working through authentic simulated medical records to produce accurate patient documentation notes. External stakeholders valued the opportunity to collaborate and contribute to student learning.

Teachers appreciated the co-design approach linked to a theoretical education framework and model. Students reported valuing the shared challenges among allied health teams.

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Oral 174

Collaborative Learning in ALS for future healthcare teams: A Near-Peer led simulation workshop

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Interprofessional Education (IPE) is recognised as a vital component of healthcare training, bridging the gap between medical and nursing students. This study investigates how IPE within Advanced Life Support (ALS) training can influence students' understanding and development of non-technical skills, such as communication and teamwork. The simulation workshop involved final-year medical and nursing students from the University of Newcastle, Central Coast Clinical School. Designed and led by near-peers, the workshop was facilitated by a collaborative team that included paramedics, nurse educators and medical officers.

The students participated in communication training, clinical skills stations and four ALS simulations, with performance evaluated using the TEAM (Team Emergency Assessment Measure) scoring tool. Voluntary pre- and post-workshop questionnaires captured students' perceptions of teamwork and communication.

Preliminary results suggest a positive impact: 87.9% of participants reported a better understanding of team roles post-workshop, compared to just 12.9% prior. All participants noted improvements in their communication skills, highlighting the benefits of working closely with peers from other disciplines. The TEAM scores showed consistent improvement across simulations, suggesting that feedback from facilitators played a key role in skill development.

Though this pilot study provides promising insights, further research is needed to assess the long-term impact of IPE-ALS on clinical practice. The involvement of an interprofessional facilitation team demonstrated a collaborative learning model that prepares healthcare students for the realities of interprofessional work in clinical settings.

This pilot suggests that IPE-ALS can significantly enhance collaboration and communication skills in undergraduate healthcare education, though further studies are required to explore its wider applicability and long-term outcomes.

Oral 175

Collaborative Online International Learning: Bridging borders - Building Futures

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Health professionals are expected to provide quality care to individuals from diverse backgrounds and cultures. Research indicates that culturally responsive healthcare, delivered by a collaborative team of health professionals, significantly enhances patient outcomes.¹

Traditionally, student mobility or exchange programs have facilitated the development of global citizenship attributes in students. However, these programs are not always scalable and can be disrupted by global events such as pandemics.

Collaborative Online International Learning (COIL) presents an alternative model for global engagement, allowing students to interact virtually with peers from other countries without economic, organisational, or geographical barriers. In 2023, funding was secured to develop a COIL “Seed” program involving universities from Australia, Malaysia, and Italy. The program’s outcomes demonstrated that healthcare students gained a deeper understanding of cultural responsiveness, self-care practices, and collaborative care. Additional funding enabled the expansion to COIL “Grow,” incorporating students from Malawi and increasing participation from various health professions. This iteration employed a co-design approach to create educational experiences using innovative digital technologies and simulations. Students engaged through forums on Padlet and synchronous virtual global classrooms. An AI platform was also introduced to enhance teamwork and interpersonal communication through adaptive simulation.

This presentation will showcase our two-year experience with COIL, highlighting its impact on cultural responsiveness, global engagement, and in preparing the future healthcare workforce for global health challenges. We anticipate the launch of a new COIL “Thrive” program in 2025, which will further strengthen international, interprofessional, and intercultural learning and partnerships.

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Oral 176

Nurses as Educators of Medical Students: Advancing from Clinical Skills to Scenario- Based Learning for Person-Centred Care and Professionalism

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Interprofessional education (IPE) is a foundational element in healthcare training, fostering collaboration and improving patient outcomes. This study explores the transition from nurse-led clinical skills teaching to scenario-based learning (SBL) for third-year medical students. An approach that integrates person-centred care and professionalism into medical education. Initially centered on clinical skills instruction, the teaching model has evolved into SBL, where students engage in complex, realistic clinical scenarios. This method not only enhances critical thinking, decision-making, and teamwork but also nurtures the professionalism needed to address the multifaceted demands of healthcare. The holistic perspectives that nursing educators bring emphasising empathy, communication, and patient advocacy are central to developing future medical officers’ sense of professionalism. Through SBL, medical students gain a deeper understanding of the humanistic aspects of care, including the ethical and respectful treatment of patients as individuals, crucial for both person-centred care and professional conduct. This study reflects on the shift in educational strategy, focusing on how nurses, as educators, bring unique insights into professionalism by demonstrating patient advocacy, ethical communication, and collaborative care. This study aims to explore how person-centred approach enriches medical students’ development not only as competent clinicians but also as professionals who respect the dignity and individuality of each patient.

Workshop 179

Building a global engagement strategy using design thinking and a 10-step action plan

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Global engagement in health professions education is essential to address health issues within a global context.¹ Developing a future health workforce with skills to operate across cultures and nations is crucial. Building student capacity for clinical skills that include global awareness, cultural responsiveness, and interprofessional collaborative practice is vital in this era of significant global health problems. A successful global engagement strategy requires substantial stakeholder involvement. Design thinking, a human-centered collaborative approach, is particularly suited for developing educational strategies as it prioritizes stakeholder input and addresses their concerns and feedback.² What sets design thinking apart from other problem-solving methods is its focus on the end-user experience.

In this workshop, participants will be introduced to a 10-step process based on design thinking to create and implement a global engagement strategy. This versatile framework can be applied across departments, faculties, entire universities, and clinical settings. The workshop will also cover key ethical principles necessary for building responsible and sustainable global engagement programs. A case study demonstrating the application of the ten-step model will be presented, followed by an opportunity for participants to explore how the framework could be adapted to their own contexts. Experienced facilitators will support participants in brainstorming and developing tailored global engagement strategies.

Learning Objectives

- Explain the concept of global engagement in health professions education
- Illustrate and analyse examples of global engagement in health professions education
- Examine the significance of interprofessional education in the context of global engagement
- Recognise the advantages and potential drawbacks of poorly planned global engagement in health professions education
- Identify essential ethical principles relevant to global engagement
- Outline the ten-step global engagement strategy development framework
- Apply the ten-step global engagement strategy framework in one's own setting

Intended Audience:

This workshop targets senior university faculty members and clinicians interested in developing global engagement strategies. It also appeals to those working or researching in global engagement and those aspiring to participate in such initiatives.

Workshop facilitators:

Associate Professor Alison Francis-Cracknell

PhD, B.App.Sci.(Physiotherapy), GCHPE, SFHEA, MAPA

Alison is Deputy Head of Department and Director of Work Integrated Learning for Physiotherapy at Monash University. She has worked as an Aus Aid volunteer and founded the Collaborative Indo-Pacific Health Care Program, which operates in Vietnam and Cambodia. Her doctorate focused on a human rights and social justice approach to teaching health equity with Aboriginal and Torres Strait Islander peoples in health professions education.

Professor Debra Kiegaldie

PhD, MEd, BEdSt, IntCareCert, RN, MACN

Debra has over three decades of experience in health professional education in higher education and health services. She is the interprofessional learning and simulation lead for the Faculty. Debra has spearheaded and contributed to two major Collaborative Online International Learning projects, partnering with Canada, Italy, Malaysia and Malawi. Both Alison and Debra co-lead the Global Engagement (Education) working group within the faculty at Monash University and collectively they have led numerous successful workshops at international conferences.

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¹https://doi.org/10.1007/978-3-319-97655-6_10

²https://doi.org/10.1007/978-3-319-26100-3_13

Oral 180

Professionalism: the past, present and future

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Traditionally, professionalism in healthcare has resided in the hidden curriculum. Formally taught content as part of undergraduate health curricula was often limited to regulatory discussion and 'avoiding unprofessional conduct'. In recent years professionalism has increasingly been acknowledged as a complex area requiring formal tuition and assessment.

We were surprised that 'professionalism education' seemed to lack a dedicated discussion forum. Instead, it tended to be included as a small theme within more general education meetings. We sought to create a specific national platform (in the UK) for the discussion of professionalism in its broadest sense: definition, education and general impact on the wider healthcare community. Two national conference events have run thus far. The first was held online in 2021, while the second in 2023 was in person. Over 100 abstracts were submitted to both events. The first event tended to regard professionalism through the lens of the pandemic. Keynote speakers considered a variety of related topics including global health (specifically, access to COVID vaccines) and professional wellbeing. Scientific abstract presentations considered pandemic-related topics including promoting resilience and preventing burnout, alongside the evolving pedagogy of professionalism and professional identity formation amongst medical students. The second conference, themed as 'achieving balance', developed these themes further with keynote speakers discussing inter-professional education and adapting to organisational demands. Workshops, oral and poster presentations explored themes of diversity and inclusion, acknowledging and addressing professional behaviours, and embedding professionalism within the curriculum. Together, these events demonstrated the breadth and depth of interest in professionalism within medical education. The conversation around professionalism has matured from 'avoiding unprofessional behaviour' to a much more nuanced understanding of professionalism as a clinical skill. It is anticipated that future events will consider professionalism assessments, teaching and remediation, and understanding potential professionalism conflicts between undergraduate study and postgraduate practitioner contexts.

Oral 181

Moving from a traditional grading method to pass/fail simulation and clinical assessments in dentistry: an experiment in progress

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Background

The Melbourne Dental School (MDS) offers two preparation for practice degrees, the Bachelor of Oral Health (BOH) and Doctor of Dental Surgery (DDS). A large proportion of these programs is dedicated to meeting clinical competencies outlined by the Australian Dental Council (ADC).¹ Previously, the decision for assessment design and competency determination was the responsibility of subject coordinators. This presentation describes how the Guttman analysis was used to set standards at the MDS and our transition to a Pass/Fail grading system as part of a programmatic approach to assessment.

Methods

Milestone simulation and clinical viva voce assessments were chosen for analysis. Criterion-referenced checklists were developed as well as rubrics assessing entrustment, professionalism, communication, time management and complexity of the patient managed.

A Guttman analysis, an alternative to Item Response Theory for small sample sizes, was used to rank skills by difficulty (evidenced by student performance) and identify cut points along the continuum of competence.^{2,3} The skills at each level are used to frame a description of competence. Together these level descriptions produce a learning progression (evidence-based construct map). Experts then set the standard by deciding which of the evidence-based level descriptions meet the expectations for a pass. The other level descriptions are used to provide actionable feedback to students and to help them track their learning over time with more detail than just pass/fail.

Progress results

Prior to the implementation of this method, grades were determined independently by supervisors and assessors using a traditional 50% pass mark. We have standardised the assessment method dictating a pass, eliminating the need for a numerical grade.

Funding

This project received funding from the University of Melbourne (UoM) Flexible Academic Programming funding to support this uplift project.

Discussion

In 2025, this method will be adopted across all the MDS ongoing simulation and clinical assessments. We will shift from milestone timepoint assessments to a programmatic approach focused on the principle of low stakes assessments promoting improvement over time.

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Round Table Discussion Group 183

A national indicative curriculum for professionalism education at medical school: what should the content be?

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The UK Council for Educators of Medical Professionalism (UKCEMP) is a not-for-profit organisation for professionalism educators in undergraduate medical education in the UK. The group has identified a need for a national indicative curriculum for professionalism education during undergraduate medical school in the UK. This has been borne out of observations of stark variation within and between schools as to what constitutes 'professionalism education', how this is taught and assessed, and its allocation of resources in comparison with other aspects of the medicine course.

Drafting a professionalism curriculum has several associated challenges. There is no unified definition of professionalism, however most authors generally accept this to be an amalgamation of an individual's behaviours, attributes and adherence to standards, alongside other characteristics that may include communication, leadership and teamworking skills. On a practical level however it can also be taken to include aspects of teamwork, leadership, communication, cultural competency (in the broadest sense), familiarity with legal frameworks and an ability to appropriately modify these skills dependent on context and patient needs. This roundtable considers these issues in the context of undergraduate curricula that are already packed with content and facing many logistical challenges.

Delegates will discuss:

1. What are the key domains of a professionalism curriculum?
2. How are these topics best taught?
3. What existing guidelines and standards could helpfully be integrated into this curriculum?

The presenters are highly experienced in teaching professionalism in undergraduate and postgraduate medical education contexts. SO and MB chair the UKCEMP, while AG is UKCEMP lead for clinical training. SO is a consultant physician with over a decade's experience exploring professionalism

in medical education. MB is a nurse professionally and works across undergraduate education in nursing and medicine; she also has a strong academic interest in compassion. AG is an internal medicine trainee with 4 years experience of researching and teaching professionalism in undergraduate and postgraduate contexts. All have delivered a very large number of workshop and roundtable sessions in this area.

Oral 185

Creating the foundation for programmatic assessments at the Melbourne Dental School: lessons learned from a new approach to blueprinting

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Background

In 2022 the Melbourne Dental School (MDS) embarked on the development of a programmatic approach to assessment across the Bachelor of Oral Health (BOH) and Doctor of Dental Surgery (DDS) programs. Prior to this, assessments were managed at the subject level with no standardisation in task description of grading processes. The aim of this presentation is to describe the development of an assessment blueprint and how this improved assessment design.

Methods

Australian Dental Council's (ADC) competency statements¹ were used as the framework for the development of construct maps.² Competencies were broken down into scaffolded progressions which describe what students can do at each level of their education. The second phase of the blueprint development mapped the LOs to the teaching, assessment and the ADC competency statements for each subject.

Progress Results

The redesigned first-year subjects and the large DDS second year clinical subject were blueprinted in 2024. Each assessment's overall weighting in the subject was then broken down into sub weightings by distributing partial weighting to each mapped LO relative to how much that LO determined a student's success in that item. This enabled us to determine the gaps and LOs that were being over- or under-assessed or LOs that technically formed part of a task but had little bearing on its execution.

Outcomes

Developing a whole of school assessment blueprint is a large undertaking, that ideally would occur prior to the introduction of a new curriculum. This is a work in progress that will continue over the next two years. However, we have already identified aspects the new program that are being under or over assessed and have designed a second year OSCE that will ensure students have met all clinical requirements to move to third year.

Oral 186

Maintaining 'the person': the need for person-centredness in professional communication

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Communication is integral in the delivery of healthcare. In Australia, the Nursing and Midwifery Board of Australia standards of practice state that care needs to be person-centred. Yet, with the current socially and politically influenced linguistics of Gen Z, millennials, and older generations often enabled through social media how do we ensure that the fundamental relational impact of 'the person' is not lost when clinicians communicate with patients/clients.

Our names are intrinsic to our identities with names having universal significance and influence on how we perceive ourselves and how others see us (Burke, 2020). Drawing upon autoethnography of a hospitalisation in 2024, the ethical consideration of personhood (Uggla, 2022) and person-centred framework (McCormack et al., 2024), this presentation aims to open a discussion on how we teach person-centredness through the concept of a person's preferred name. One of the author's preferred name is 'Jenny' which was clearly stated on a 'white board' in the hospital room. However, they were called, amongst others: 'dear', 'darl', 'professor' and 'honey'.

Central to person-centred care is ensuring respect and humanising caring practice through being. In the context of current societal trends that include changing and differing, often binary values, how can health professional educators embed the core value of respect? Teaching communication skills integrally ensuring the patient's preferred name as both an indicator and recognition of personhood and dignity, must be upheld across the healthcare disciplines.

Enabling a person-centred learning culture, requires integration across higher education and practice contexts (Dickson et al., 2020). The pedagogy of teaching professional communication skills needs to embrace the values of person-centredness, acknowledging the diversity of teaching staff, students, clinicians and healthcare consumers. Critical reflexive and collaborative learning will be instrumental in ensuring that the person's name is maintained, in the busyness of care delivery.

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Oral 187

Supporting contemporary 'clinical' skills in nutrition and dietetics - placement innovations to support food systems

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Background

Employment trends and research indicate that nutrition and dietetic students require expanding and non-traditional skills to equip them for future roles.^{1,2} Influencing the food system is one of these identified skills. Innovations in work-based placement models are required to support contemporary skills development.

Methods

A recent curriculum review of the Master of Nutrition and Dietetics (MND), incorporated stakeholder consultation (from educators, students, placement partners) that led to changes in content, teaching approaches, placement expectations and assessment in Food Systems. This guided development of a 2-week Food System integrated placement experience across varying settings (such as community, food relief, hospital and aged care).

The food system placement experience included pre-placement briefings (including context specific details of organisational food systems) and guided orientation activities for students. An organisational-directed food system group project/task (or series of mini-projects/tasks) was completed during placement. Assessment was an Executive Summary Report, communicating students' findings about the organisational food system experience. A post-placement survey of placement partners provided evaluative data.

Evaluation

Sixty-four MND students undertook placement in varied settings. Key findings indicated that students:

- linked the theory/content of a Food Systems unit with their placements.
- gained better understandings of organisational food systems, and in most cases applied feasible recommendations to how system wide changes can impact nutrition.
- fostered stronger relationships and supported the management of comprehensive Community and Population Health Nutrition (CPHN) projects.

Partner (n=15) surveys suggested:

- opportunities for more autonomy in activities and increased time for project work
- enhanced preparedness for managing clients
- supported student approaches to teamwork

Conclusion

This unique placement experience supports contemporary skill development across varying organisational contexts. These non-traditional 'clinical skills,' are essential for health professionals to optimise policy, safety, efficiency, and sustainability in health and organisational service delivery.

Further evaluation and refinement is required.

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Oral 188

It may seem counter intuitive but . . . can generative AI simulation prepare students for 'real life' health interviews?

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Background

Healthcare students report being underprepared for health interviews and clinical conversations (Lanahan et al., 2022). Classroom role plays with peers and facilitators may develop skills in dialogue, however their authenticity and success vary. Using trained actors as simulated patients for rehearsal of challenging conversations is of benefit (Gutiérrez-Puertas et al., 2020), however, resourcing limits this models viability for ongoing student practice. University of Canberra is trialing a generative AI platform (Sim Converse) which enables health interview practice with a screen-based, AI generated patient. Students interact with the simulated patient via an online, verbal, two-way conversation in the context of a predesigned case scenario. After practicing, students receive a transcript of the conversation dialogue and immediate feedback from the AI platform identifying themes that were and were not investigated.

Aim

As the scope and reflexivity of generative AI grows, this team is investigating the usefulness of this innovative tool to prepare students for rehearsal of critical communication skills and translation of this to real world contexts.

Results & Next Steps

SimConverse, an innovative generative AI educational intervention has been embedded into a first-year undergraduate nursing subject since 2023 to support students in their essential clinical communication skill development. Evaluative data demonstrates a high level of positive engagement with the platform. While engagement and anecdotal data is encouraging, the impact of AI supported communication skill development on the perceived preparedness of students to engage in health interviews on placement is unknown. We are currently undertaking a qualitative descriptive study to better understand this dynamic from the student perspective.

This project has University of Canberra research ethics approval and is in progress with qualitative data collection, analysis and evaluation to be completed by March 2025. We look forward to presenting the findings at the conference.

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Oral 191

Virtual Reality for Surgical Training and Simulation in Orthopaedic Fracture Surgery

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Background

Virtual reality (VR) represents a growing tool within surgical education^[1]. The use of VR in orthopaedic surgical training is currently limited, primarily utilised within the realm of arthroscopy and arthroplasty procedures^[2, 3]. Orthopaedic trauma surgery represents a significant portion of orthopaedic workload and a core component of orthopaedic training. Currently the role of VR as an education tool within orthopaedic trauma surgery has very little evidence and represents an untapped educational tool.

Aims

The aim of this study was to assess the utility of a new and novel VR simulation as a tool for training orthopaedic surgeons in the assessment and surgical management of ankle fractures.

Methods

Orthopaedic trainees completed a VR task, assessing ankle fracture patterns and planning surgical fixation. Participants completed a surgical planning exercise identifying fracture patterns and planning surgical fixation of ankle fractures classified within the Lauge-Hansen classification^[4]. Mixed methods were used to evaluate the utility of VR to assess and plan surgical fixation, assessing confidence, competence and acceptability of the tool, in addition to thematic analysis of participants feedback of the VR software.

Results

Following the VR exercise, participants confidence identifying and classifying ankle fracture patterns increased from 3.2 to 7.2 out of 10 ($p < 0.01$). Confidence in ankle fracture fixation and surgical planning increased from 3.5 to 6.6 out of 10 ($p < 0.01$). Themes from semi-structured group review of the VR platform included; improved visualisation of fracture patterns, better informed planning of surgical approach and improved fixation planning.

Conclusion

VR represents an effective educational tool for orthopaedic ankle fracture surgery. Benefits of VR include increased trainee confidence identifying fractures requiring surgical fixation, with VR informing surgical approach and fixation principles. Orthopaedic trainees look forward to seeing an increase in the utilisation of VR within their training.

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Oral 192

Through the Looking Glass of Simulation: Unmasking the Cultural Differences Experienced by Refugee Doctors in the NHS

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Introduction

Wars and climate-related-disasters have resulted in over 110 million people forcibly displaced worldwide¹. The United Kingdom (UK) hosts nearly 450,000 refugees, of which approximately 2000 are refugee doctors^{1,2}. A common challenge faced by refugee doctors during their integration into the workforce is cultural competence which can be addressed via Simulation^{3,4}. The Bridges Programme provides resources to support the integration of refugee doctors in Scotland⁷. A half-day Ward Simulation Exercise (WSE) was created for participants to carry out the duties of a National Health Service (NHS) resident doctor on a simulated ward of three patients with a nurse and senior doctor.

Aim

To explore the cultural differences experienced by refugee doctors within the micro-society of an NHS ward using simulation.

Methods

The WSE consisted of a pre-brief prior to and a wrap-up session after conclusion of the exercise to optimise psychological safety. While each participant participated, the other refugee doctors observed remotely. A group debrief followed each individual simulation to maximise the potential for learning from the exercise. Following ethical approval, the participants were invited to participate in a semi-structured group interview. Data obtained was analysed using reflective thematic analysis⁵.

Results

Overall participants were very positive about their WSE experience throughout the interview. Major themes constructed concerned: cultural differences in job roles, perceived retribution, availability of senior support and patient confidentiality. Refugee doctors perceived that the responsibility of a junior doctor was comparatively greater in their home countries, yet they felt retribution in event of a mistake as greater in the UK. Participants commented perceived readily available senior support in the UK meant a lower threshold for escalating patients.

Conclusion

Identifying these themes can aid health and social care policymakers and agencies in tailoring resources supporting refugee doctors integrating into the workforce whilst addressing the recruitment crisis in the NHS⁶.

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Poster 193

Virtual Anatomy Shoulder Model - Incorporating A Three-dimensional Interactive Resource Into Clinical Skills Teaching

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Anatomy is a discipline where spatial visualization is important, and students need to understand spatial relationships and dynamic aspects of functional anatomy. This is particularly pertinent when teaching musculoskeletal (MSK) examinations, as students are expected to correlate functional and surface anatomy. At the University of Dundee, cadaveric dissection is used alongside plastic models - however, we sought to explore second year students' and staff's attitudes towards the use of a new virtual shoulder model during a clinical skills session focused on teaching examination of the shoulder.

An interprofessional team of staff and students from different disciplines (medicine, medical arts, pathology and computing) collaborated on developing a web application, which was trialled in October 2023. Feedback was collected from students and staff around the use of this resource as a teaching tool, comparing it to the plastic model. All parties agreed that the model addressed the challenge of understanding how surface anatomy correlated to the underlying structures. It also helped better visualise the functional anatomy of the rotator cuff muscles on testing. Its availability out with the session and the dissection room encouraged private study. The teaching team felt that both models had a role to play, especially in the context of a virtual application not providing tactile feedback. In conclusion, we feel that this additional teaching resource can be used to supplement the traditional static plastic models and cadaveric dissection in the context of clinical skills teaching at an undergraduate level. Next step therefore is designing similar applications for other joints.

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Poster 194

Building blocks for medical students in paediatrics

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Undergraduate Recognition and Management of the Sick Child (URMSC) is a 2-day course that was created in October 2023

by the paediatric medical education team in Lanarkshire to provide clinical skills teaching and simulation to 4th and 5th year medical students as part of their paediatric specialty block. It is based on the original 1-day Recognition and Management of the Sick Child (RMSC) course, demonstrating the fluidity of the course. Some adaptations were made to the workshops, and tutorials were added, in order to align with the undergraduate curriculum.

With increasing student numbers, it was becoming challenging for all students to complete the requirements of their placement. URMSC was developed to alleviate pressure from the university and provide high quality, interactive teaching sessions.

URMSC uses a mixed learning method to incorporate clinical skills workshops, case study work, paediatric basic life support and high fidelity simulated scenarios. A student-led debrief is facilitated by an inter-professional faculty following each scenario, and concluded with a micro teach.

Feedback has been positive, with simulation being the most valuable element for 90% of students.

This course has now been developed for postgraduate primary care staff, and Foundation Year 2 trainees.

Oral 195

Evaluation of Learner- centred Communication Masterclasses - A deep dive into the Communication challenges encountered by Year 3 and 4 MB BS Medical Students on Clinical Placements in 2024 2025

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Background

For many years, 3rd and 4th Year MB BS students have attended compulsory Communication Masterclasses giving them an opportunity to discuss and role play communication and professionalism challenges that they have encountered on clinical placement. These sessions are tutored by trained Primary/ Secondary care clinicians working with highly experienced Simulated Patients, providing a safe learning environment for students to role play these challenges, give and receive feedback and identify strategies for dealing with similar challenges if they arise in the future. Since we introduced these sessions, student feedback has been consistently excellent, with students appreciating the opportunity to reflect and learn from clinician tutors about real-life communication/professionalism challenges. Over the past two years, we have upskilled our tutors and Simulated Patients - to provide students with an opportunity to discuss and role play microaggressions if requested by students. This aligns with the new General Medical Council Good Medical Practice (2024) guidance which has an increased focus on creating respectful fair and compassionate workplaces and helping to tackle discrimination.

Evaluation

During 2024 2025, we are undertaking both student **and** tutor evaluation of these sessions (both Likert scale and descriptive). This will enable us to delineate both the types of challenges brought by students, the challenges which are role-played and those which are discussed. We will undertake a deep dive and thematic analysis into the student challenges and student and tutor experiences. The oral presentation will include an analysis of these evaluations. A comparison will be made with those challenges brought by students 10 years ago.

Conclusions

These evaluations will inform -

- Further curricular development
- Future Communication Masterclass clinician tutor / Simulated Patient training.
- Our wider programme of staff development for our primary and secondary care clinical tutors.
- Good Medical Practice, General Medical Council 2024 (<https://www.gmc-uk.org/professional-standards/good-medical-practice-2024>)

Poster 196

Essential Skills for Geriatric Health Assessment: A Guide for Primary Care Nurses

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With population rising globally, primary care nurses are facing increasingly many challenges in providing comprehensive care for older adults. This review aims to identify and synthesize the core competencies that primary healthcare nurses need to conduct a thorough comprehensive geriatric assessment (CGA), focusing on physical, mental, emotional, and social health.

Methods

An extensive literature review contacted in data bases such as PubMed, Scopus and Cochrane.

Results

Thirty-eight studies were included in this review, revealing eight key competency domains for nurses involved in the CGA: Physical and Functional Health Assessment, Mental and Emotional Health Assessment, Social, Environmental, and Spiritual Assessment, Patient-Centered Care and Communication, Care Planning and Management, interdisciplinary Teamwork and Leadership Technology and Digital Competence, Education and Continuous Learning.

Conclusions

The identified competency domains provide a structured framework that can enhance primary care nurses' ability to deliver more effective, individualized, and coordinated care to older adults. However, standardization of these competencies remains crucial for ensuring consistency in practice.

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Oral 198

Presentation GP Tutors' Reflections on delivering Clinical Reasoning Workshops in Primary Care: Impact on their own practice, classroom based teaching and maximising learning from patient encounters

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Background

Experts and novices approach clinical reasoning in different ways, experts mostly using fast processing, using an extensive bank of illness scripts, which can be opaque to novices (Croskerry et al).

Aligning to the Consensus Statement on clinical reasoning (Cooper et al) we have adopted a sequence of pedagogical interventions:

1. An explicit Year 2 clinical reasoning curriculum of eight small group classroom-based sessions facilitated by University-based clinician clinical skills tutors
 2. A series of three Year 3 and two Year 4 Clinical Reasoning Workshops delivered by Faculty to the whole cohort
 3. A multi-faceted programme of staff development delivered to our University-based clinician clinical skills tutors and to primary and secondary care clinical placement tutors (e.g. face to face and online tutor development sessions, Q&A and iterative support in-year).
- These interventions introduced clinical reasoning theory (e.g. Dual Processing model), focussing on the importance of making their own clinical reasoning explicit to students in teaching surgeries and encouraging a shared student and tutor vocabulary around clinical reasoning.

Clinical Reasoning Workshops Delivered by GP Tutors

Over the last two years, we have trained over 60 Y3 and Y4 GP tutors to each deliver two half day clinical reasoning workshops during GP Tutorial time. The training included online workshops, Q&A, and providing extensive training materials. We have focussed on embedding clinical reasoning, emphasising the importance of the need for effective student communication skills and to maximise student learning from patient encounters, underpinned by a cognitive apprenticeship model.

Anecdotally, GP tutors have reported that delivering the workshops has increased insights into their own clinical reasoning/biases and enhanced their skills in providing feedback to students on their clinical reasoning.

Evaluation

We will present a detailed evaluation of GP tutors' reflections on delivering the workshops and the impact on their own practice, classroom-based teaching, and facilitation of student learning from patient encounters.

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Poster 199

Enhancing Physiotherapy Process through Simulation Sessions

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Simulations in healthcare education combine theory and practice, activating students through realistic scenarios, aiming to provide a safe environment to practice. At the Turku University of Applied Sciences (TUAS), we developed innovative simulation scenarios to learn the physiotherapy process by practicing the examination, assessment, planning, and implementation through interlinked simulation sessions.

The themes focused on ankylosing spondylitis and shoulder joint problems, both including three separate sessions. In the ankylosing spondylitis simulation, the same patient case was used throughout the three sessions, allowing continuous focus on the physiotherapy process without needing to re-establish baseline information. Conversely, the shoulder pain scenarios involved three different patients all with shoulder problems, enabling exposure to various shoulder issues while maintaining a logical progression from interview to clinical examination and to physiotherapy implementation.

The scenarios were piloted at TUAS with physiotherapy students (n=80). According to the evaluation, the scenarios strengthened the knowledge about the musculoskeletal disorders and especially the implementation of the physiotherapy process. The students in the roles (patient, physiotherapists and significant others) felt that receiving enough guidance before starting the exercise was important. By focusing on the physiotherapy process, these simulations prepared students for clinical practice and gave an insight into their future profession.

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Round Table Discussion Group 200

Roundtable Discussion - Constructive integration of artificial intelligence (AI) into clinical skills development in the face of an AI tsunami

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At the ICSC 2019 our round table discussion asked how we “future proof” students. Generative AI wasn’t even a useful thing at the time. Look where we are now. None of us saw the AI tsunami coming, but . . . “The future of artificial intelligence is not about man versus machine, but rather man with machine. Together, we can achieve unimaginable heights of innovation and progress.” - Fei-Fei Li (Computer scientist & Co-director Stanford Institute for Human-Centered AI) 2021

AI is the internet equivalent for the 21st century. It is and will continue to be transformative for both learning and healthcare delivery. Therefore, this Round Table Discussion seeks to explore how we can best strengthen our skills-based approach to AI use in healthcare professions education and training. We will explore changes to skills curricula and the delivery this technology might provoke. This could include skills practice and rehearsal, learning and assessment resource content generation and impact on clinical placement learning as initial examples. We will explore the risk of divergence between our changing curricula and our students’ expectations of it. As the conversation progresses facilitators will encourage delegates to consider just how we keep up with this innovation and, perhaps, how we may even get ahead of it?

Roundtable objectives

1. What impact are we seeing now?
2. AI in clinical skills learning & assessment - student perspective.
3. AI in clinical skills learning & assessment - tutor perspective.
4. AI in clinical skills learning & assessment - what next?
5. What can we imagine may be coming down the line?

All levels of experience are welcome.

Simon Gay

(MBBS, MSc, MA (Med Ed), FRCGP, SFHEA)
GP & Head of School & Professor Medical Education at Leicester School of Medicine, and previously Director MB ChB Curriculum Keele School of Medicine. Active in undergraduate & postgraduate healthcare education & Editor-in-Chief of Education for Primary Care journal. Interests - reflection, professionalism, clinical reasoning & skills development.

Lucy Ambrose

(BSc MBBS MRCGP MSc FHEA MD)
GP & MB BS Programme Director & Professor Medical Education (Hull York Medical School, UK) & involved Medical Education >20 years. Previously Director of Clinical Skills Keele School of Medicine and Director of the Clinical Course University of Nottingham. MD in Medical Education (Dundee) looked at the role of reflection in patient safety training for medical students. Interests - human factors, clinical reasoning & skills development.

Andy Wearn

(MBChB MMedSc MRCGP FRNZCGP)
GP & Associate Professor (University of Auckland, NZ). Moved to NZ in 2001 establishing the Clinical Skills Centre Auckland, following an initial academic career in UK GP. He has been Director of Assessment, Deputy Head & Head of the medical programme. Educational interests include in skills, professionalism, assessment and learning. Eclectic mix of publications in HPE & primary care. An Associate Editor for FoHPE (journal of ANZAHPE).

Anna Hammond

(MB ChB MEd FRCGP SFHEA)
GP & Deputy MB BS Programme Director, Professor Medical Education and Academic Lead Clinical Skills & Reasoning Hull York Medical School, UK & involved medical education >20 years. Co-founded UK Clinical Reasoning Medical Education Group (UK CReME). Interests - clinical reasoning, maximising learning from patient encounters & EDI.

Workshop 201

From stranger to ally to active bystander - developing kinship in healthcare

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Aim

To facilitate participants' understanding of the role of kinship with patients and colleagues in developing allyship and the willingness to be an advocate and active bystander for others in healthcare settings.

Objectives

Understand that healthcare culture can be modified and influenced by everyone
Understand the factors which encourage people to collaborate together in high-pressure situations
Understand approaches to developing kinship among staff and patients through engagement and a willingness to learn about the other person
Understand the importance of psychological safety in enabling others to contribute to the workplace and to speak up when required
Learning to facilitate a culture of 'mutual surveillance' in ensuring wellbeing

Background

Allyship is a life-long relationship based on solidarity and trust which can change harmful patterns of behaviour. Active bystanders recognise potentially harmful situations and choose to act and intervene in a way that can positively impact the outcome. The culture of healthcare is a patient safety issue. A culture of rudeness impairs the performance of both of individuals and teams¹. Communication is a key skill in healthcare culture particularly in raising concerns and managing risk². Rudeness impacts both diagnostic and treatment decisions³. Initiatives facilitating open discussion and supported personal disclosure in healthcare teams are crucial in empowering staff with confidence and a sense of responsibility for their local healthcare culture. Simulation in active bystander training increases students' ability to recognise disrespectful behaviour at work⁴. Addressing the culture of healthcare and the importance of behaviours which promote kinship are arguably equally important.

Plan

We will discuss the concept of kinship and allyship in healthcare and how healthcare culture impacts staff wellbeing, development, cognitive function including clinical reasoning and ultimately patient safety. The workshop will involve whole group discussion together with small group activity and feedback. We will provide examples of educational interventions together with cultural practices which may facilitate a sense of belonging to the group, identification and bonding with others and

ultimately a willingness to stand alongside others in situations of discrimination, harassment and victimisation. Equally, we will explore the barriers to such a culture and how they may be addressed.

We will address specifically:

- The impact of toxic cultures on resilience and wellbeing in individuals and teams
- Overcoming interpersonal gaps to become allies
- Use of the most respectful interpretation as a strategy to improve interpersonal and team relationships
- Approaches to difficult conversations including active bystanding

Experience

We are co-creators of the Nottingham Clinical Active Bystander project and have presented internationally and nationally on this topic. We are developing a massive open online course (MOOC) in allyship and active bystanding in healthcare for FutureLearn.

Intended Audience

Anyone who works with healthcare students, trainees and professionals in any capacity, particularly pastoral support, or direct teaching involvement.

Maximum number of participants (At least 40):
50 (Groups of 4-6)

Reference:

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Poster 202

"The Ethics Lab," An Interactive Tool for Delivering Medical Ethics Training

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Introduction

As the landscape of health care has changed in recent times, so too have the ethical dilemmas healthcare professionals face (Malina et al., 2023). The General Medical Council outline the need for newly qualified doctors to behave in accordance with ethical and professional principles (GMC, 2018), with clinical integration identified as an effective way of delivering ethics teaching. (Oldroyd et al., 2014). We developed interactive, peer led sessions to address gaps in ethics teaching in final year medical students.

Methods

Our sessions comprised an introduction to the core principles of medical ethics, followed by an interactive peer led discussion stimulated by pre-recorded clinical scenarios. Pre and post course electronic surveys were completed anonymously, with students rating their confidence in a number of domains including interest, knowledge & confidence in discussing & applying medical ethics principles.

Results

Initial results found an increase in all measured domains, including confidence in applying ethical principles to common medical scenarios for their future clinical practice. All students thought interactive ethics sessions were helpful and important in delivering this area of the curriculum.

Conclusion

Our preliminary findings demonstrate a need for designated, interactive clinical teaching in medical ethics. Utilising video scenarios to facilitate peer discussion can increase students' confidence in facilitating discussions and is a useful teaching tool. We hope this programme will have a lasting impact on medical students throughout their careers.

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Oral 203

'Road 2 Resus' - Introduction to managing multi-casualty scenarios in and out of hospital

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Background

Prehospital medicine is an important and dynamic speciality, yet one which medical students are rarely exposed to. 'Road 2 Resus' was created to bridge the knowledge gap between prehospital and hospital care. Our objective was for students to follow patients' journeys from the incident site to the Emergency Department and develop leadership, prioritisation, communication and inter-professional skills during simulated scenarios.

Methodology

'Road 2 Resus' has been delivered annually to final year medical students placed at South Tees Trust since 2020. Participants are presented with three consecutive scenarios utilising immersive simulation during which they interact with paramedic students, police and fire service and medical personnel:

1. Multi-trauma scene, 2. Ambulance transfer, 3. Emergency Department. Students are allocated in groups to individual patients and provided with adequate equipment to carry out A-to-E assessments, manage the patient and facilitate their handover into the next scenario. Each scenario was followed by a detailed debrief. Students completed evaluation forms after the session.

Results

To date 250 medical students participated in this programme. 80% of students rated the course excellent with 20% rating the course very good. All students agreed or strongly agreed that this course would change their future practice. Students described that the simulation felt very close to real-life scenarios and that being put under pressure helped them develop their decision making. Other common themes included enjoyment of IPL, recognition of human factors and the importance of gaining useful feedback during debriefing.

Conclusion

'Road 2 Resus' has been a very well received addition to our simulation teaching programme. Students valued the opportunity to gain experience in prehospital care and the trauma patient journey, which is often neglected in the undergraduate curriculum. The use of immersive simulation allowed for very realistic scenarios and feedback highlighted significant learning between medical students and other professional groups.

Poster 204

Putting the patient first - Multi-professional Patient Safety Day

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Background

Patient safety is at the heart of delivering high quality patient care and requires collaborative working from professionals in multiple specialties. Communication and understanding of each other's roles is paramount to the delivery of safe high-quality care. The 'Patient Safety Day' was designed to enable students of various specialties to understand and appreciate the contributions other professionals can make to patient safety in a protected simulated teaching environment.

Methods

The Patient Safety Day is delivered annually to 200 final year medical, nursing, physiotherapy, occupational therapy and radiography students. The day consists of presentations and interactive workshops covering current patient safety issues, e.g. dementia care, safe handover and human factors. Students are allocated to inter-professional teams and rotate through practical workshops where they have to deal with issues such as falls prevention, identifying hazards on a simulated ward, dealing with complaints and holding a discharge case conference.

Results

All attendees complete an evaluation, 93% of participants felt that the programme raised their awareness of current patient safety issues and 94% found it useful or very useful to work in groups with other health care professionals. Participants commented that it helped them understand other professional roles and highlighted issues that were new to them. The interactive workshops were found to be particularly relevant and helpful in preparing for clinical practice as qualified healthcare professionals.

Conclusion

The Patient Safety Days has become a successful initiative to improve patient safety through multi-disciplinary teaching and learning and prepare undergraduate students for their clinical careers.

Poster 206

Simulation Based Learning for Acute Kidney Injury

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Background

Acute Kidney Injury (AKI) and Sepsis are two national clinical priorities (1), but students often lack confidence in managing AKI compared to sepsis (2). AKI complicates many acute illnesses meaning newly qualified doctors encounter AKI early in their careers. Lecture-based teaching has traditionally focused upon “complex” renal diseases, with less emphasis on practical AKI care. We hypothesized Simulation Based Learning (SBL) would enable effective AKI training for medical students, providing clinical context and addressing areas of low confidence.

Methods

We delivered a novel AKI-SBL programme to final year medical students (MS) comprising of 3 scenarios: 1. AKI in diarrhoeal illness and hypotension, 2. AKI in sepsis and multi-organ failure and 3. decompensated heart failure in a patient whose cardiac medications were stopped after AKI. Students were asked to complete an internet-based survey before and after the SBL session.

Results

48 final year MS completed the survey. Compared to sepsis, MS reported less previous training, less self-rated understanding (5.7 v 7.3 / 10) and confidence (4.4 v 5.9 / 10) about AKI. Following the SBL session students indicated improved AKI understanding and confidence in particular on difficult topics such as “fluid balance”, “drug dosing” during AKI and “indications for renal referral”.

Conclusion

We found SBL an effective educational method to help final year MS feel better prepared to manage AKI. Our evaluation found AKI-tailored SBL was well received by MS and suggests SBL may be superior to conventional renal teaching at addressing pragmatic topics fundamental to safe and quality AKI care.

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Oral 207

Simulation faculty of the future; embracing the next generation

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Background

Interprofessional simulation is becoming increasingly prevalent within healthcare education, it has been shown to enhance team performance and patient outcomes (1). These simulations should have interprofessional faculty who are aware of candidate's differencing responsibilities and competencies (2). Faculty are generally recruited from fellowships, conferences and study courses (3), however, these are limited opportunities, often unavailable to nurses until much later in their career if at all. Clinical Skills Specialists in Lanarkshire have been considering ways to engage with nurses and develop their participation as simulation faculty. In 2022 we were approached as a potential nursing placement opportunity. Whilst it was felt we would not be a suitable area for students due to limitations in achievable outcomes. It was agreed there may be value in final year students attending for a day focusing on educational aspects of simulation, which could be further developed upon registration if desired. Courses were identified that could provide suitable opportunities for student's learning. Prior to attending students were provided with information including details about what they could expect from a typical day.

Evaluation

Students were asked to provide anonymous feedback about their experiences. Feedback was generally positive. Nursing students valued the chance to gain insight into how simulation is delivered and work with doctors and medical students. The medical students appreciated the chance to engage with nursing students and gain insight into their capabilities. Further opportunities have been offered for the next academic year, planning for two students to attend for three days allowing peer support and more time to become familiar with the department.

Conclusions

One student has since participated on courses as an embedded professional with others expressing interest to return in the future. The hope is that this will continue and we can foster the next generation simulation faculty.

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Oral 208

Bridging the Gap: Using a Simulated Ward to Increase Confidence and Preparedness in Final Year Medical Students

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Introduction

Final year medical students in the UK often feel unprepared for non-technical skills needed in the Foundation Year 1 (FY1) role, particularly due to the distractions of a ward environment. A seminar-based teaching programme was initially implemented at James Cook University Hospital (JCUH) but received negative feedback for being “dry” and “bland,” prompting a shift to a more engaging approach.

Aim

This study evaluates whether the introduction of a simulated ward teaching session enhances final year medical students’ preparedness for their upcoming FY1 roles.

Methods

Forty-eight medical students participated in 12 simulations in April-May 2024, organized in groups of four. Each simulation involved 6 patients (3 role players and 3 manikins), simulating real FY1 tasks such as handovers, ward rounds, patient assessments, incident reporting, and complex communication. Students completed questionnaires before and after the simulation to assess confidence in key areas, and quantitative and qualitative analysis of the results was performed.

Results

Data from 34 students indicated significant increases in confidence levels across all key topics. The largest improvement was in giving handovers (average increase of 1.51 points, post-simulation average score of 4.82), while the smallest increase was in receiving handovers (0.93 points). Overall confidence for FY1 work rose by 1.19 points. Notably, 92% of participants preferred this approach over previous seminars, with 94% rating the session as good or very good.

Conclusions

The simulated ward effectively increased students’ confidence and preparedness for clinical practice as foundation doctors. While the pilot study demonstrated success, future sessions should address weaker areas identified in feedback. Limitations include the small sample size and subjective self-assessment, necessitating further research for enhanced reliability. This model may be applicable at other medical education sites.

Oral 209

Exploring Ethical Success: Physiotherapists' Experiences in Clinical Practice

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Ethical competence represents a fundamental aspect of professional expertise within the field of physiotherapy. This skill is essential for fostering effective interactions and facilitating successful rehabilitation outcomes. Many physiotherapists face ethical dilemmas on a weekly basis. However, the capacity to identify and address these ethical situations differs among practitioners.

This study described physiotherapists' ethical competence in clinical practice in situations in which they experienced they have succeeded to act ethically competently. The study also aimed to validate an existing conceptual framework of ethical competence, which has been established through concept analysis as a structure for understanding and evaluating the various components of ethical competence in practice. All together 164 physiotherapists responded to open-ended questions by writing short narratives of an ethically challenging situation. The narratives were analysed using deductive-inductive content analysis to discover meaningful underlying categories under the existing conceptual analysis frame's themes.

The professional values of physiotherapists emphasized respectful attitude, honesty, justice, equality, self-determination, and professionalism. At the center of all was the patient. Responses were related to advocating and supporting patients, having courage to disagree and get involved, identifying barriers in own knowledge and implementing physiotherapy according to the patient's needs. Ethical awareness as an attribute of ethical competence was emphasized in physiotherapists' responses. They experienced they had succeeded in listening to the patient, encountering the patient holistically and respectfully.

This study provided new knowledge about ethically challenging situations that physiotherapists encounter and their skills to work within these. By validating the framework of ethical competence, the study also enabled further development of the instrument for ethical competence evaluation. This will stimulate discussion around the topic in educational settings and in clinical practice, highlighting the importance of continuous education in developing a strong ethical framework that guides physiotherapists, ultimately leading to better outcomes in physiotherapy practice.

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Oral 211

Rapid Cycle Effect of Deliberate Practice: Application in Paediatric Anaesthetic Training

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Introduction

Simulation-based education is integral in medical training, particularly in high-stake scenarios within anaesthesia. Traditional simulation courses often emphasise lengthy debriefings that surpass scenario durations. Rapid-cycle deliberate practice (RCDP) offers an alternative by incorporating repeating practice with immediate micro-debriefing, enhancing training utility, skill acquisition, and confidence. This is the first study to evaluate RCDP in paediatric anaesthesia.

Objective

This study aimed to assess the feasibility and effectiveness of RCDP in a paediatric anaesthetic simulation course, focusing on improving trainees' confidence and competence in managing critical scenarios.

Methods

Conducted in July 2024, the study involved 11 paediatric anaesthesia trainees from North London general hospitals. The course featured three key scenarios: sepsis management, head injury stabilisation, and airway management. Participants completed pre- and post-course surveys, using a 4-point Likert scale to self-assess confidence. Both qualitative and quantitative methods were used, with outcomes evaluated using Kirkpatrick's model.

Results

Initial findings indicated moderate confidence in participants prior to the course. Post-course assessments revealed a significant increase in confidence across all scenarios, along with marked improvement in perceived competence. Notably, the proportion of trainees reporting confident or very confident in managing paediatric cases in secondary care increased post-course. All participants deemed the repetition of simulation beneficial. Survey reliability was supported by Cronbach's alpha values (0.80 pre-survey, 0.69 post-survey). Human factors emerged as a key theme, with 10 out of 11 participants highlighting their importance in feedback.

Conclusion

The RCDP simulation course effectively enhanced the confidence and competence of anaesthesia trainees in managing critical paediatric scenarios. The emphasis on human factors and the iterative nature of RCDP suggests promising avenues for further research in its application to clinical performance. Future studies should explore the long-term impacts of RCDP on clinical outcomes, advancing research up the evaluation triangle to include behavioural change and patient outcomes.

Oral 212

Varying lengths of introduction to simulation affects student learning condition - an experimental double blinded study

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Introduction

Simulation-based teamwork training (SBTT) is known to induce pre-simulation anxiety among students across various disciplines (1). It is recommended that before simulation exercises (scenarios) there should be an introduction (2, 3). While these recommendations outline what should be covered, they do not specify the optimal length of the introduction.

The aim of this study was to explore how the duration of the introduction affect student participants in terms of learning conditions and scenario performance.

Methods

After obtaining ethical approval, 127 third-year nursing and fourth-year medical students were enrolled in a half-day interprofessional SBTT course focusing on both technical and non-technical skills. Previous simulation experience was low to intermediate. Groups were randomized to either a 90 or a 30-minute introduction before the scenarios, and the teams in the scenarios consisted of three participants. Individual mental strain and cognitive load during scenarios were measured by validated instruments and team performance was evaluated through video analysis of the simulations.

Results

Participants who received the shorter introduction experienced significantly higher levels of mental strain during the simulation scenarios. However, no significant differences were observed in cognitive load or team performance between the two groups.

Discussion

In interprofessional SBTT, the pre-simulation introduction plays a critical role in establishing optimal learning conditions, particularly by alleviating student stress. Our findings suggest that a longer introduction period reduces mental strain, potentially enhancing the learning experience. Although no clear impact on team performance or cognitive load was detected, the reduction in stress may indirectly contribute to better learning outcomes.

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Workshop 213

Using Entrustable Professional Activities (EPAs) for clinical assessment in the workplace

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Background

Healthcare professionals are often presented with unpredictable and complex scenarios at work. New graduates are often inadequately prepared for the complexity and uncertainty associated with clinical practice. Literature has contrasted training for 'competency' with 'capability'¹, which expands beyond competence to incorporate individual learners' personal attributes, such as knowledge, practical ability, and emotional resilience, relative to the unpredictable stressors faced in clinical contexts. Entrustable Professional Activities (EPAs) may be useful in better preparing the future workforce for the key job activities expected by employers². EPAs incorporate clinical tasks that are core to expected daily duties of graduates, measured by the level of independence with which a graduate can be entrusted to undertake them independently in the workplace³. Entrustment as a concept can be difficult to understand by relevant stakeholders and this workshop will explore challenges to implementation of EPAs from the experience of the presenters and participants.

Learning Objectives

- Understand the advantages of using EPAs as they apply to your area of work
- Discuss common challenges associated with the implementation of EPAs and reflect on their relevance for your area of work
- Identify learner's attributes that can foster entrustability
- Increase familiarity with entrustment scales and design of EPAs for different contexts

Workshop Structure

During this workshop, delegates will have the opportunity to share their experience with the use of EPAs, or discuss their intended use, as well as discussing advantages and challenges. The speakers will share their own experiences, providing a wide view of the applicability of EPAs across the healthcare professions, and from both users and assessor's perspectives.

Take Home Message

The use of EPAs in assessment in health professions education provides many benefits for both users and assessors; however, educators should be aware of challenges associated with its implementation and acceptance.

Intended Audience

This workshop would suit faculty and assessors across the healthcare professions who utilise clinical assessments in the workplace
Summary of the instructor's qualifications or prior experience in similar presentations:
All authors have extensive experience either with the design and implementation of EPAs (TG & SH) or as an end-user within a postgraduate training curriculum (SW). All authors have delivered similar workshops at international conferences including ICSC, AMEE, EBMA, and OTTAWA conferences.
Maximum number of participants in the proposed workshop: 40

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Oral 214

A phenomenological study of medical students undertaking immersive psychiatry simulation: New insights for educators

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Introduction

Mental health simulation has great value, providing medical students a safe, supportive environment to encounter acute mental illness and develop psychiatric clinical skills. The experience of students within simulation has previously been overlooked within medical education research. As such, our research aims to gain new insights into their individual lived experience.

Methods

To gain an in-depth understanding, we utilised interpretative phenomenological analysis. Through individual semi-structured interviews, we explored the experiences of four final-year medical students undertaking simulation, re-telling their stories. Interpretation of data identified a number of themes.

Results

An over-arching theme of 'emotional dimensions' and three super-ordinate themes were identified: i) 'the safety of simulation'; ii) 'simulation: learning from the self and others'; and, iii) 'simulation: a space to learn clinical skills'.

This study provides new insights, including the influence of emotions within the debrief and the challenges students encounter learning technical aspects of psychiatric clinical skills.

We considered how learners may use simulation as a space to become more confident and competent practitioners. Models based upon Vygotsky's zone of proximal development and Kolb's experiential learning cycle, have been developed to conceptualise how learning moves between simulation and clinical settings.

Conclusions

These four participants have provided new insights into their experience of simulation. As educators, we could perhaps revisit our faculty development programme, taking greater consideration of the role of emotions in debriefing and feedback. It may be useful to reconsider the teaching of clinical skills in psychiatry, with greater opportunities for structured learning and feedback. It is unclear how students integrate learning from simulation into clinical placements and vice versa. Greater dialogue between educators may help students move learning from simulation to the post-simulation space, supporting their transition from confidence to competence. Further research understanding this process and the role of emotions in debriefing would be beneficial.

Poster 216

“Hands-On Mastery”: A Sustainable Approach to Broadening Educational Access and Cultivating Surgical Interest with Enjoyable Low-Pressure Skills Sessions

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Introduction

Worldwide significant challenges are faced in the provision of undergraduate surgical skills teaching despite proficiency in surgical skills being a requirement from governing bodies such as the UK General Medical Council. Several identifiable barriers to this include accessing theatre-based learning (Ravi et al., 2021), (Glossop et al., 2023) and unprofessional behaviours (Song & Willy 2024). Repurposing existing materials and equipment, we developed two interactive surgical skills sessions (laparoscopic and open) to cultivate a low-pressure learning atmosphere for students to be exposed to & develop essential skills.

Methods

Pre- and post-course questionnaires were administered to final-year medical students undertaking a 5-week rotation in obstetrics and gynaecology, gauging their interest in a surgical career and assessing their confidence across six surgical domains using a 5-point Likert scale. Additionally, students answered post-test questions regarding the course's enjoyability and its impact on their workload.

Results

Preliminary findings indicate that 100% of students (n=23) found the sessions enjoyable, increasing their understanding of the surgical placement without adding to their workload in a negative way. Those considering a career in surgery rose from 46% pre-course to 70% post-course. Students reported increased confidence post-course in 5 of the 6 domains assessed with further results to be presented at conference.

Conclusion

Our initial findings highlight the educational value of these sessions, which not only stimulate students' interest in surgical specialties but also enhance their enjoyment and comprehension of surgical placements. These practical sessions offer a promising avenue for broadening access to surgical skills training & career pathways

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Oral 217

Factors affecting stress and wellbeing in UK anaesthesia training; in depth qualitative analysis of clinical and non-clinical factors

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Introduction

Anaesthesia is a high-pressure specialty where trainees experience acute and challenging clinical situations, with decreasing supervision relatively early in their careers. Recent studies found a high prevalence of stress and burnout in trainee anaesthetists.[1,2] Our study aimed to explore factors contributing to stress and wellbeing in UK anaesthesia trainees as well as supportive mechanisms, through in-depth qualitative analysis.

Method

Ethical approval for this study was granted by the University of Plymouth Ethics Committee. The study used a qualitative design with two phases: 1) semi-structured interviews; and 2) focus groups. A call for participants was circulated across the UK by the Royal College of Anaesthetists and the Association of Anaesthetists. We conducted semi-structured interviews sampling from CT2-3, ST4-5 grade, and stakeholders involved with training. For phase 2 we ran two focus groups with participants not involved in phase 1 (one with trainees and another with key stakeholders in educational roles). Interviews and focus groups were conducted online, and audio-recorded. Data were transcribed, coded and thematically analysed using NVivo 14 with framework analysis used to capture emerging themes.

Results

52 participants were interviewed in Phase 1, which included trainees from across the training grades in England, Wales and Scotland. Analysis identified overarching themes which contributed to stress amongst trainees; factors related to clinical and non-clinical work, structure of training and workplace culture. A number of supportive features have been identified in this research which have been categorized as individual, local, regional and national factors. Stress and burnout was a common occurrence, particularly during stressful periods such as exams. Balancing commitments such as clinical logbook and reflective portfolio alongside a busy workload was difficult. Clinically, ITU and obstetrics were found to produce the most stress in trainees. Frequent rotations and long commutes compound stress, and reduced the quality of working and family relationships. External factors such as changes to examinations, curriculum and competition for higher training posts added to demoralisation and stress.

Conclusion

Our study has highlighted individual as well as many external factors which contribute to stress and wellbeing in anaesthesia trainees. Many of these external factors could improve trainee wellbeing with changes to policy and practice at local, regional and national levels.

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Poster 219

Advanced Clinical Skills Rotation - Bond University

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In response to recommendations from the Australian Medical Council (AMC) and Medical Deans of Australia and New Zealand (MDANZ) for students to acquire intern-readiness skills, and following the Australian Medical Students' Association's (AMSA) call to develop programs to support students and graduates in periods of transition, Bond University are currently developing a new Doctor of Medicine (MD) rotation, the Advanced Clinical Skills rotation, commencing in March, 2025.

The Advanced Clinical Skills Rotation will be a 7-week work-integrated learning experience, consisting of high-fidelity cases, including simulation, aimed at spiraling Bachelor of Medical Studies (BMedSt) pre-clinical teaching and improving student competence in identified work-place skills. Students will be allocated to the rotation as part of their clinical program, which will include ward call shadowing shifts, hospital readiness workshops, advanced communication skills and procedural skills training.

Wellbeing of students and interns has been directly linked to familiarity and confidence with decision-making and common tasks expected of graduates. By supporting students in being better equipped to perform these skills, we aim to decrease the anxiety and stress associated with these transition periods.

Oral 220

Essential or Non-Essential; Pre-licensure Nursing Psychomotor Skills for New Graduate Nursing Practice: A Delphi Study

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The debate about which skills are relevant and necessary for the new graduate to competently demonstrate is not new. The discourse often focuses on skills relating to affective domains traditionally included in curricula and lacks being evaluated for relevancy. There is little consensus concerning essential psychomotor skills. Unlike nursing, the Association of American Medical Colleges (AAMC)(2014) includes a list of thirteen entrustable professional activities (EPAs), which must be included in medical education. The twelfth EPA directly addresses psychomotor skills medical program graduates must perform at a competent level. Unlike medical school educators, nursing educators have not made a unified statement regarding the "entrustable activities" (specifically psychomotor skills). In 2021, The American Association of Colleges of Nursing (AACN) published The Essentials: Core Competencies for Professional Nursing Education, providing a guide for curriculum and program development. In March 2023, the AACN published the 'Guiding Principles for Competency Based Education and Assessment'. The National League of Nursing (NLN) published a 'Vision Statement: Integrating CBE in the Nursing Curriculum' calling to "reevaluate nursing education methods and long-standing practices and turn toward Competency-Based Education (CBE) as a model for the future" (2023). However, these seminal publications do not provide guidance for the educator in relation to which psychomotor skills are essential to teach to competency. It is essential that educators from both academia and practice evaluate the current method of skill acquisition including which psychomotor skills should be taught and developed to proficiency. This presentation will discuss the continued debate and discuss a multi-site, modified Delphi study that identifies an agreed upon list of essential psychomotor skills to inform pre-licensure nursing programs which skills to teach and assess for a generalist nurse to a competency level; including the ideal educational methods and settings where each skill should be taught and evaluated.

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Clinical Placement Coaches Program - Bond University

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The Bond University Clinical Placement Coaches (CPC) program was co-designed with medical students and other key stakeholders in response to feedback from students, faculty and hospital staff that additional placement-based, clinical support was needed. CPCs are medical practitioners, familiar with the placement environment and employed by Bond to provide near-peer support for medical students on clinical placement in the MD program. They will be trained in bedside teaching and clinical coaching. CPCs complement existing student support services and clinical teaching. Students engage voluntarily with CPCs, during unscheduled placement hours. CPC roles are tailored to individual placements requirements. CPCs will assist student's transitioning to new placements, increase opportunities to practice generalizable clinical skills with feedback and help identify student learning needs, set learning goals and assist with a proportion of work-based assessments. CPCs are available to all students at their site but prioritise students in their first clinic year transitioning from pre-clinical to clinical placements or between public/private settings. CPCs can also assist students requiring academic support. Each student's level of engagement with CPCs will vary and will be logged by students and CPCs through the existing WBA platform (Osler). The program will be formally evaluated through a mixed methods approach.

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