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CONFERENCE ABSTRACTS

ASIA PACIFIC MEDICAL EDUCATION CONFERENCE (APMEC) 2026

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THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Friday 23 January 2026, 11.00am

Hua Yue 1, Level 3

FREE COMMUNICATIONS 1

Harmonising Virtual and Hands-On Learning: A Collaborative Model for Optimising Hysteroscopy Training in Health Professions Education
Hong Zhan, China

"The First Person I Need to Teach is Myself" – Clinician Educator Leaders' Capabilities and Aspirations for the Use of AI in Teaching: A Mixed Methods Study
Eileen Bei, Singapore

Evolve, Educate, Excel: Transforming Nursing Educators' Digital Pedagogical Growth Through a Longitudinal Study
Beck Hiang Joanna Lee, Singapore

Burnout in Health Students and Its Relationship with Demographic and Academic Characteristics: A Survey-Based Study
Cristhian Perez-Villalobos, Chile

Reframing Clinical Placement Learning: Designing Curricula for Collaborative and Contextual Skill Development
Trish Brown, United Kingdom

Understanding Diverse Stakeholder Perceptions of Virtual Healthcare in Vietnam: A Multi-Perspective Qualitative Analysis to Inform Health Professions Education
Quang Nguyen, Vietnam

Assessing the Educational Landscape: A DREEM Analysis of Second-Year Medical Students' Experience
Komson Wannasai, Thailand

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

HARMONISING VIRTUAL AND HANDS-ON LEARNING: A COLLABORATIVE MODEL FOR OPTIMISING HYSTEROSCOPY TRAINING IN HEALTH PROFESSIONS EDUCATION

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Background and Aims
Hysteroscopy represents an essential minimally invasive technique for diagnosing and treating intrauterine pathologies, playing a crucial role in preserving women's reproductive health. Despite its clinical significance, current training approaches lack standardisation across medical education institutions. This study investigates an innovative collaborative training model that harmonises virtual reality simulation with traditional hands-on tissue resection to establish a more effective, standardised curriculum for hysteroscopic skill acquisition.

Methods
In this prospective randomised controlled trial, 41 gynaecology residents without prior hysteroscopic experience were stratified by baseline laparoscopic skills and randomly assigned to either VR-priority (n=21) or HR-priority (n=20) training groups. The comprehensive 3-day curriculum incorporated: (1) standardised theoretical instruction covering fundamental principles and procedural techniques (TCRP/TCRM); (2) VR simulation using the validated HystSim platform (VirtaMed AG); and (3) hands-on tissue resection training with bipolar resectoscopes on ex vivo porcine heart models. A unique crossover study design enabled comparative evaluation of training sequences, with skills assessed across five critical domains: procedural safety, instrument handling efficiency, visualisation completeness, fluid management, and target resection accuracy. Additional outcomes included theoretical knowledge testing, self-efficacy surveys, and training satisfaction measures.

Results
While both groups demonstrated equivalent baseline competencies, the VR-priority group achieved significantly superior performance in safety parameters ($p<0.05$), visualisation quality ($p<0.05$), and fluid management ($p<0.05$) at final assessment. Both groups showed comparable proficiency in instrument handling and resection accuracy metrics. Notably, the VR-priority cohort reported substantially higher levels of self-confidence ($p<0.05$) and training satisfaction ($p<0.05$), with 85% of participants endorsing the combined VR-HR approach as optimally effective for skill acquisition.

Conclusion
This study demonstrates that a harmonised training approach, strategically combining VR simulation with hands-on tissue resection, creates a synergistic educational model that capitalises on the unique strengths of each modality. The findings support an evidence-based training paradigm where initial VR exposure establishes critical cognitive and psychomotor foundations, while subsequent hands-on practice provides essential haptic feedback and clinical contextualisation. Such collaborative integration of diverse educational technologies not only enhances learning outcomes but also addresses current disparities in training quality across institutions. We propose this model as a standardised framework for hysteroscopy training that can be adapted across health professions education programs, ultimately improving both learner competence and patient care outcomes.

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"THE FIRST PERSON I NEED TO TEACH IS MYSELF" – CLINICIAN EDUCATOR LEADERS' CAPABILITIES AND ASPIRATIONS FOR THE USE OF AI IN TEACHING: A MIXED METHODS STUDY

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Background and Aims
AI adoption by clinical teachers is important because it enhances the quality of medical education by making learning more accessible, personalised and engaging. Additionally, AI can streamline administrative tasks, freeing up teachers to focus on instruction and curriculum development. Clinician educator leaders (CELs) are a critical group of stakeholders in AI adoption for clinical teaching. The aim of this study was to gain a better understanding about how CELs at a public healthcare cluster in Singapore currently use AI in their teaching, what motivated them to adopt AI for teaching, and what would help equip them to use AI more effectively as educators.

Methods
Survey: A small-scale anonymised survey (n=18) was conducted during a multi-professional faculty development workshop at a Singapore public healthcare cluster to assess AI literacy and trust using the validated AI Literacy Questionnaire (AILQ) and Trust Scale for the AI Context (TAI).

Interviews: A total of 13 interviews with CELs were recorded and transcribed. Interviews focused on CELs' current usage of AI, their state of AI knowledge and their aspirations for using AI in teaching. Transcripts were analysed according Braun and Clarke's approach to thematic analysis.

Results
Survey respondents showed overwhelming agreement when asked about efficiency of AI tools. While the majority said that they were curious about and interested in AI technologies, nearly half of respondents reported feeling ambivalent (44.4-50.0%) about the reliability and accuracy of AI tools. A similar proportion reported ambivalence when asked if they felt safe when relying on AI tools and if they felt confident about handling AI tasks.

A preliminary analysis of five interviews from medical and nursing CELs highlighted some of the reasons behind the apparent wariness. A total of seven themes were identified: AI was viewed by the CELs as "Just a tool" (for mundane tasks and not as a partner in teaching). CELs felt that they had to "Adopt or perish" (incorporation of AI into clinical teaching was inevitable). However, they also had to "Proceed with caution" (always check AI, never adopt it unquestioningly).

CELs evaluated their current capability as "Novice end users", and saw themselves as stepping up to become "Confident tinkerers" (aspiring to be able to customise tools for specific purposes). However, two pre-requisites for upskilling: a) "Bandwidth for exploring" (having time and resources to try AI tools), and b) "Institutional scaffolding" (additional training as well as domain expertise support).

Conclusion
An institutional framework has been drawn up to delineate the levels of AI capabilities required for AI-related education roles. The findings of this study, however, reveal that CELs, while motivated to implement AI into clinical teaching, require much personal and institutional support to reach the basic level of "confident end users" as prescribed by the framework.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EVOLVE, EDUCATE, EXCEL: TRANSFORMING NURSING EDUCATORS' DIGITAL PEDAGOGICAL GROWTH THROUGH A LONGITUDINAL STUDY

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Background and Aims
The rapid digitalisation of healthcare education has heightened the importance of digital competency among nursing educators. Digital competency among nursing educators has become increasingly crucial in modern healthcare education. There is a need to embrace technology-enhanced immersive learning, understanding and developing nurse educators' digital pedagogical capabilities has become paramount for effective teaching and learning outcomes. This longitudinal study aimed to evaluate the digital pedagogical growth of nursing educators between 2022 and 2024, examining changes across seven key competency areas namely: Professional Engagement, Digital Resources, Teaching and Learning, Assessment, Empowering Learners, Facilitating Learners' Digital Competence, and Open Education.

Methods
A comparative analysis was conducted using DigCompEdu online survey framework to measure digital competence from nursing educators in 2022 (n=28) and 2024 (n=25). The study utilised a validated rating scale comprising 25 items across seven competency areas. Participants were categorised into six proficiency levels namely A1 (Newcomer), A2 (Explorer), B1 (Integrator), B2 (Expert), C1 (Leader) and C2 (Pioneer). Statistical analysis included Paired Comparisons, Effect Size Calculations, and Confidence Intervals to measure changes in digital competency levels were used.

Results
The findings revealed significant improvements in overall digital proficiency, with mean scores increasing from 49.1 to 59.0 (p=0.006). Notable shifts occurred in proficiency levels. The majority progressed from Explorer who has little contact and needs guidance for integration (A2: 21% to 12%) and Integrator who experiments with technology and adapt (B1: 46% to 44%) levels to Expert who make use of a wide range of digital resources (B2: 14% to 36%). Pioneers who lead innovation and a role model (C2) increased slightly (3% to 8%). While Newcomers (A1) were eliminated, we see a gradient increase to B1 (Integrator) and B2 (Expert) becoming the dominant categories in 2024 representing 44% and 36% of participants respectively. Substantial improvements were observed in professional engagement (p=0.002), teaching and learning (p=0.024), and assessment (p=0.027). The percentage of educators reporting confidence in digital implementation increased from 14% to 42%. These results have demonstrated the successful integration of digital tools into the curriculum as part of their pedagogical approach. However, areas such as digital resources (p=0.223), facilitating learners' digital competence (p=0.175) and open education (0.175) showed limited improvement, suggesting opportunities for targeted development such as student led activities (e.g., explore and use good digital resources, gamification or submit e-assignment etc).

Conclusion
The study demonstrates significant progress in nursing educators' digital pedagogical capabilities over two years, particularly in these competency areas such as professional engagement, assessment, teaching and learning and empowering learners. The study reveals three critical success factors: (1) sustained institutional support for tool adoption, (2) communities of practice for peer learning, and (3) competency-aligned training pathways. The transformation from digital immigrants to digital citizens is evident, though challenges remain in advanced areas such as learner facilitation and open education. These findings suggest the need for continued support through targeted interventions, particularly in student-led digital activities and open educational practices, to further enhance nursing educators' digital pedagogical capabilities.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

BURNOUT IN HEALTH STUDENTS AND ITS RELATIONSHIP WITH DEMOGRAPHIC AND ACADEMIC CHARACTERISTICS: A SURVEY-BASED STUDY

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Background and Aims
Education in the healthcare field demands the development of clinical and interpersonal skills in students, with an intensity that can subject them to chronic stressors with pernicious consequences, one of which is burnout. Burnout in students and healthcare workers is currently a widely frequent and studied phenomenon. This study aims to correlate the level of burnout among health students at a Chilean university with their sociodemographic and academic characteristics.

Methods
We surveyed 879 from four health-related programmes: Medicine (n=275; 31.29%), Physical Therapy (n=85; 9.67%), Pharmaceutical Chemistry (n=334; 38.00%), and Speech Therapy (n=185; 21.05%). They were selected by quota sampling and completed the Maslach Burnout Inventory (MBI) and a sociodemographic and academic questionnaire. The Ethics, Bioethics, and Biosafety Committee approved the research, and students accepted informed consent before the survey. For data analysis, we conducted descriptive statistics and a multiple linear regression. This study was sponsored by the Chilean Agency for Research and Development, ANID-Chile, by the ANID-FONDECYT 1231772.

Results
Students showed levels of Emotional Exhaustion higher than Lack of Personal Accomplishment and Depersonalisation. Higher levels of emotional exhaustion were associated with being female and being in the fourth year. The three models were statistically significant ($p<0.05$), predicting 10.5% in Emotional Exhaustion, 5.8% in Lack of Personal Accomplishment, and 10.2% in depersonalisation. Also, a greater lack of personal accomplishment was associated with being female and being in the second or third year. Higher levels of depersonalisation were associated with younger ages, male gender, paid work activity, and being in the fourth year. We tested multiple linear regression models using gender, age, paid employment, course failure, institution, and level as predictors.

Conclusion
The results of this study indicate that factors such as being a woman, being in the fourth year of study, and studying medicine are associated with higher levels of emotional exhaustion. It was found that being a woman, being in the second or third year, and studying Pharmacy are associated with a greater lack of personal accomplishment. Likewise, higher levels of depersonalisation were associated with factors such as being a man, being younger, having a paid job, and being in the fourth year of study. In contrast, lower levels of depersonalisation were associated with students who graduated from private, fee-paying schools and students studying Physical Therapy and Speech Therapy.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

REFRAMING CLINICAL PLACEMENT LEARNING: DESIGNING CURRICULA FOR COLLABORATIVE AND CONTEXTUAL SKILL DEVELOPMENT

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Background and Aims
Clinical placements are a critical component of undergraduate medical education; in addition to enabling skills development to meet competence requirements, they are also central to the development of professional identity. Yet, the literature describes a dissonance between the realities of a student's experience on placements, compared to the structured expectations of curriculum designers. Drawing on reflective insights from a phenomenographic study exploring medical students' experiences of achieving a Directly Observed Procedure (DOP) in wound closure, this presentation highlights key implications for curriculum design in medical education.

Methods
This study used phenomenography to understand students' experiences during their journey to complete a DOP in wound closure in a secondary care (hospital) setting. Phenomenography seeks to describe conceptions of a particular phenomenon and recognises that they are subjective and based on the context in which they were experienced; however, they are a truth for the person experiencing them. Semi-structured interviews were conducted with six medical students and the data analysed using a phenomenographic framework. Alongside this, data from two focus groups with clinical faculty (n=6) were analysed thematically as a validatory tool to compare faculty perceptions with the lived experiences of students.

Results
Students' learning and success in achieving their DOP was shaped not only by formal instruction, but by the extent of their success in gaining legitimate peripheral participation within communities of practice. Here their collaboration with senior doctors, nurses, clinical teaching fellows, and peers was essential but not always structured or facilitated by their placement providers, leading to ad-hoc and informal learning experiences outside of their main placement activities. These interprofessional interactions were often the most significant enablers of learning, underscoring the need for curricula that explicitly support and scaffold collaborative learning environments. Students' ability to navigate their placements was also dependent upon their mindset and aptitude for navigating uncertainty. Tensions emerged between institutional expectations and the lived realities of clinical placements. Students navigated inconsistent access to learning opportunities, hierarchical dynamics, and the performative nature of assessments. While faculty often advocated for organic, immersive learning, students expressed a need for structured support to maintain agency and ensure equitable access to skill development. This need was underscored by a desire to be seen as a legitimate member of the workforce whose efforts were welcomed and valued by those within the community of practice.

Conclusion
These reflections suggest that curriculum design must ensure that placement learning leading to procedural assessments also embrace the relational and contextual nature of clinical learning. Embedding reflective practice, scaffolding interprofessional collaboration, and addressing hidden curricula are essential to fostering inclusive, authentic learning experiences. By aligning curricular structures with the collaborative realities of clinical practice, medical schools can better prepare students for the complexities of modern healthcare.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

UNDERSTANDING DIVERSE STAKEHOLDER PERCEPTIONS OF VIRTUAL HEALTHCARE IN VIETNAM: A MULTI-PERSPECTIVE QUALITATIVE ANALYSIS TO INFORM HEALTH PROFESSIONS EDUCATION

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Background and Aims
Virtual healthcare is transforming global service delivery, but its integration into clinical practice and training in low- and middle-income countries like Vietnam is uneven. To support inclusive and culturally informed health professions education, it is essential to understand how diverse stakeholders conceptualise, assess, and engage with virtual healthcare in local settings.

The aim of this study is to explore how doctors, patients, and medical students in Vietnam define virtual healthcare, perceive its benefits and barriers, and identify practical applications, in order to inform the integration of digital health into undergraduate and continuing medical education.

Methods
This paper is based on a survey conducted with 751 participants: 303 doctors and 228 patients from public and private hospitals, and 220 medical students from a not-for-profit university. All participants were invited to respond to four open-ended questions which were included in the questionnaire. Data was coded using content analysis, and responses were categorised and compared across stakeholder groups using frequency mapping.

Results
Definitions of virtual healthcare converged on three dominant themes: “consultation” (shared by 40% of doctors, 35% of patients, and 39% of students), “health service delivery” (28% of doctors, 18% of patients, 19% of students), and “online platforms” (11% of doctors, 7% of patients, and 39% of students). The strong emphasis on platforms among students reflects their digital fluency, while doctors focused more on clinical utility and patients on accessibility.

Across all groups, the most frequently reported benefits were convenience (45% overall; 47% of doctors, 44% of patients, 43% of students), time-saving (35% overall), and cost reduction (25% overall). Students emphasised population reach and reduced travel (33%), while doctors focused on remote monitoring and chronic care follow-up (24%). Patients highlighted reduced burden for caregivers and ease of access for immobile individuals.

Barriers included lack of physical examination (reported by 50% of doctors, 26% of patients, 30% of students), poor internet infrastructure (32% overall), and digital illiteracy, especially among the elderly (9%). Diagnostic reliability and privacy concerns were noted by 25-30% of students and patients. Doctors also raised regulatory uncertainty (15%) and inadequate training (21%) as limiting factors.

Use-case preferences were aligned across groups: virtual healthcare was seen as suitable for non-urgent conditions such as minor illnesses (15%), mental health (12%), chronic disease management (10%), follow-up care (10%), and nutrition or dermatology (7%). Only 3% of all participants supported its use in emergencies, reflecting a consensus on its role in stable, longitudinal care rather than in acute situations.

Conclusion
This multi-stakeholder analysis highlights both shared and divergent perceptions of virtual healthcare in Vietnam. While students bring technological readiness, doctors contribute clinical pragmatism, and patients offer insight into access challenges. These perspectives underscore the need for health professions education curricula that bridge digital fluency with ethical reasoning, diagnostic competence without physical exams, and patient-centred communication. Training programmes must be tailored to local infrastructure and readiness while fostering interprofessional collaboration. Strengthening digital health education can promote equity, innovation, and resilience in Vietnam’s healthcare system and beyond.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ASSESSING THE EDUCATIONAL LANDSCAPE: A DREEM ANALYSIS OF SECOND-YEAR MEDICAL STUDENTS' EXPERIENCE

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Background and Aims
The quality of the educational environment is vital for effective learning, especially in medical education. The Dundee Ready Educational Environment Measure (DREEM) is a well-established tool for assessing educational contexts globally. Despite its widespread application, DREEM has not yet been implemented in the Bachelor of Medicine programme at Chiang Mai University. This gap is significant, as understanding the educational environment can provide insights into how innovative teaching methods introduced in the 2023 Revised Curriculum impact student learning. This study aims to address this gap by examining the factors influencing the learning experience within this newly revised curriculum framework.

Methods
This study employed a cross-sectional design to assess the educational environment using the DREEM among 250 second-year medical students at Chiang Mai University during the 2024 academic year. The DREEM questionnaire was administered through Google Forms at three intervals: the second, fourth, and sixth months of the academic year. This approach allowed for the monitoring of students' perceptions over time. Mean scores for both overall and domain-specific variables were calculated to track changes in the educational environment and identify potential challenges. ANOVA was performed to examine changes in perceptions over time.

Results
The students responded to the questionnaire with 149, 125, and 88 participants for the first, second, and third rounds of the questionnaire, respectively. The analysis of the DREEM scores revealed a significant shift in student perceptions regarding the educational environment. Initial scores averaged 92.74 (SD=11.06) out of 200, indicating a range of challenges. Over the following months, scores improved to 103.8 (SD=10.27) and 108.31 (SD=10.30), reflecting positive changes in perceptions. Statistically significant improvements were found when comparing the first to the third round in students' perceptions of learning (from 22.28 to 24.82 and 25.57, $p<0.001$), academic self-perceptions (from 17.68 to 20.46 and 21.54, $p<0.001$), and perceptions of atmosphere (from 17.01 to 21.49 and 21.80, $p=0.003$). Social self-perceptions remained consistently low (from 12.74 to 14.68 and 15.31, $p=0.045$). Perceptions of the course organiser showed slight fluctuation without significant change (from 22.28 to 22.33 and 24.06, $p=0.098$). These results indicate meaningful progress in learning and confidence while also highlighting ongoing challenges in the social environment and teaching quality.

Conclusion
The DREEM assessment clearly identifies critical areas within the medical programme's educational framework that require improvement. The findings underscore the need for targeted adjustments in teaching methodologies and enhancements to the learning atmosphere to foster a more supportive educational environment. This study highlights the importance of continuous evaluation and adaptation in medical education. By implementing the necessary changes based on student feedback, Chiang Mai University can significantly enhance the educational experience, ultimately supporting the academic success and well-being of its medical students. Future research should focus on specific interventions aimed at improving the identified challenges, with ongoing assessment to measure their effectiveness over time.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Friday 23 January 2026, 11.00am

Hua Yue 2, Level 3

FREE COMMUNICATIONS 2

From Learners to Leaders: How Peer Teaching Shapes Interprofessional Education Outcomes
Qing He, Hong Kong S.A.R

Gamifying Education: Boosting Learning and Satisfaction Among Medical Students through Game-Based Learning
Pesol Hankittikanchana, Thailand

Rethinking Equity in Medical School Admissions: Socioeconomic Status and Non-Cognitive Assessment Outcomes – A Three-Year Analysis
Liuyan Jiang, Singapore

Caring For LGBT+ Individuals: Perceptions and Training Needs of Health Sciences Students in Hanoi, Vietnam
Le Hoang Huy Truong, Vietnam

Conceptualising and Determining Laparoscopic Competencies in Surgical Resident: A Qualitative Study from China
Yao Xiao, China

Does Practice Make Perfect? Assessing the Impact of Mock OSCEs on Student Confidence and Anxiety Levels
Chun Hui Sharmaine Wong, Singapore

Introduction of Interprofessional Education through the Complex Case of Patient in the Undergraduate Setting: A Qualitative Study and Student's Reflection
Claudine Qyu, Indonesia

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

FROM LEARNERS TO LEADERS: HOW PEER TEACHING SHAPES INTERPROFESSIONAL EDUCATION OUTCOMES

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Background and Aims
Peer teaching, where learners instruct peers of similar standing, is increasingly adopted in medical education to address faculty shortages and enhance learning capacity. While promising, its comparative efficacy against faculty-led methods within interprofessional education (IPE) remains underexplored. Theoretical frameworks such as social and cognitive constructivism and Bandura's social learning theory suggest that peer teaching fosters supportive environments conducive to trust, emotional resonance, and knowledge transfer. This study evaluates peer teaching effectiveness in IPE, specifically examining its impact on learners' professional self-efficacy, interdisciplinary perceptions, and professional identity. It also assesses the distinct roles of peer and faculty tutors and explores the impact of teaching on peer tutors' efficacy, professional development, and self-growth.

Methods
Employing a concurrent triangulation mixed-methods design, we integrated quantitative and qualitative data from 844 health and social care undergraduates at a Hong Kong university. Participants were randomly assigned to peer-led or faculty-led IPE groups. Post-session, all 844 participants completed online teaching efficacy evaluations. Additionally, a subgroup was invited to complete questionnaires assessing interdisciplinary perception, professional identity, and professional self-efficacy before and after the IPE programme. We obtained 349 pre-surveys and 224 post-surveys, yielding 167 valid matched pairs (59 faculty-led, 108 peer-led). Qualitative insights into the peer teaching experience were obtained through reflective essays submitted by all 12 participating peer tutors. Statistical analyses were performed using IBM SPSS Statistics (version 26). Thematic analysis of the peer tutors' reflective essays was conducted using MAXQDA (version 24).

Results
Mann-Whitney U tests revealed no significant difference in overall teaching efficacy between faculty-led and peer-led groups ($z=-1.300$, $p=.194$). However, Wilcoxon Signed-Rank tests revealed students in peer-led groups demonstrated significantly greater improvement in professional self-efficacy ($z = -2.030$, $p=.042$). Thematic analysis identified core IPE tutor roles: facilitating discussions, ensuring smooth running, clarifying task requirements, ensuring task completion communication, breaking the ice, bonding from different disciplines, and creating a comfortable and welcoming atmosphere. Faculty tutors provided essential academic scaffolding and intellectual stimulation. Peer tutors excelled in fostering emotional safety, inclusivity, and peer support, enhancing discussions through concept clarification, probing questions, and building trust via ice-breaking and empathy. Peer tutors also reported significant development in their communication, self-confidence, leadership, critical thinking, and problem-solving skills.

Conclusion
Peer teaching demonstrates comparable effectiveness to faculty-led teaching within IPE. Peer tutors' social and cognitive proximity uniquely enables them to address student challenges empathetically and facilitate positive group dynamics. Their inclusive approach encourages open dialogue, risk-taking, and mutual respect across diverse groups. Furthermore, the teaching experience significantly enhances peer tutors' self-efficacy, professional identity, and leadership capabilities. Incorporating peer teaching into IPE curricula enriches learning experiences and cultivates collaborative healthcare practitioners equipped with vital interprofessional competencies and leadership skills.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

GAMIFYING EDUCATION: BOOSTING LEARNING AND SATISFACTION AMONG MEDICAL STUDENTS THROUGH GAME-BASED LEARNING

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Background and Aims
As medical education evolves, enhancing student engagement and fostering critical thinking skills have become increasingly important. Traditional instructional methods often leave students feeling unmotivated and dissatisfied with their learning experiences. Game-based learning (GBL) offers an innovative alternative, incorporating gaming elements to create immersive, active learning experiences that promote knowledge application. Investigating the impact of GBL on student learning and satisfaction could inform the development of more effective and engaging educational strategies that better prepare students for clinical practice.

Methods
A cross-sectional study was conducted among second- and third-year undergraduate medical students at Chiang Mai University to evaluate the effectiveness of GBL using the Quizizz platform. Data was collected through pre- and post-tests designed to assess knowledge retention and engagement. A comprehensive nine-item questionnaire utilising a 5-point Likert scale was administered, focusing on key aspects such as student engagement, feedback quality, and overall satisfaction with the GBL experience. Additionally, two open-ended questions provided qualitative insights into students' experiences and suggestions for improvement. Knowledge retention was evaluated by comparing pre- and post-test scores within each year group using paired t-tests. An independent samples t-test was employed to compare post-test results and satisfaction levels between the two year groups. Qualitative data from open-ended questions underwent thematic analysis to identify common themes and student feedback.

Results
A total of 202 second-year and 163 third-year medical students participated in the study, revealing statistically significant improvements in knowledge retention were observed ($p<0.0001$), with mean post-test scores substantially higher than pre-test scores. Both student groups expressed favourable perceptions of GBL, with third-year students reporting significantly higher satisfaction levels ($p=0.0032$). Key benefits identified included improved understanding of course content ($p<0.0001$), enhanced confidence in retaining information ($p<0.0001$), and better application of knowledge to clinical scenarios ($p<0.0001$). Thematic analysis revealed that GBL fostered active engagement, enthusiasm, and collaborative learning, although some challenges related to game format preferences and technical issues were noted. These findings demonstrate the potential of GBL to enhance learning experiences in medical education while highlighting areas for improvement in its implementation.

Conclusion
This study demonstrates that GBL effectively promotes active learning and enhances student perceptions in medical education. GBL creates a dynamic, learner-centred environment that significantly improves cognitive outcomes and student engagement. Notably, students in systemic sciences exhibited a greater preference for GBL compared to their counterparts in basic medical sciences, likely due to their exposure to clinical scenarios that facilitate the practical application of knowledge through gameplay. These insights suggest that integrating GBL into medical curricula can optimise learning experiences and better prepare students for clinical practice. Future efforts should focus on tailoring GBL formats to different medical disciplines and addressing technical challenges to optimise its educational impact.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

RETHINKING EQUITY IN MEDICAL SCHOOL ADMISSIONS: SOCIOECONOMIC STATUS AND NON-COGNITIVE ASSESSMENT OUTCOMES – A THREE-YEAR ANALYSIS

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Background and Aims
Efforts to promote equity, diversity, and inclusion in medical school admissions have incorporated non-cognitive assessments, such as written Situational Judgment Tests (SJT), multiple mini-interviews (MMIs) including roleplays, as tools to identify applicant attributes beyond academic performance. While these tools are often described as socioeconomically neutral, limited empirical evidence exists, especially within Asian contexts. This study examines whether applicants' socioeconomic status (SES), as measured by self-reported per capita income (PCI), is associated with performance across various non-cognitive assessments during the admissions process at an Asian medical school.

Methods
Data from three admission cycles (2022-2024), involving approximately 3,000 applicants, were analysed. SES was defined by self-reported PCI and categorised into quartiles. A multivariate linear regression model assessed SES effects on SJT, individual MMI station performance, and overall admissions scores, using the lowest SES quartile (students who would qualify for financial aid) as the reference. The model controlled for prior academic performance and gender. While students were primarily selected for the admissions using standardised academic test scores conducted at the end of secondary education, an aptitude-based admissions pathway (ABP) allowed a subset of applicants with outstanding leadership, service, or sporting achievements to be considered outside standard academic criteria. Assessors in all stations (except interview station) were blind to candidates' academic performance or prior school records. PCI information was not revealed to any assessor.

Results
A positive SES gradient was observed for overall admission scores, with applicants in the highest quartile outperforming those in the lowest. For individual components, the task-oriented role-play (communication), teamwork stations, and the SJT showed significant SES effects. SJT favoured high-SES applicants in 2022 (β=0.91) and 2024 (β=0.68). For the communications station, this effect appeared in 2022 for the third quartile (β=0.79); For the teamwork station, the two highest quartiles did better in 2022 (β=0.58 and 0.63) and the highest quartile in 2024 (β=0.58). For the task-oriented station, top-quartile applicants scored higher in 2023 (β=0.55) and the top two quartiles in 2024 (β=0.67 and 0.80). Notably, no SES link was found in the interview station, the only one where assessors had visibility of prior school experience and SES clues (e.g., expensive extra-curricular activities). Across all three years, ABP applicants achieved higher interview station scores than peers with stronger academic results. Female applicants consistently outperformed male counterparts in multiple domains, including SJT, interview, and overall scores.

Conclusion
Our study demonstrates that applicants with higher self-declared PCI performed better in standardised stations assessing domains traditionally regarded as values-based and thought to be SES-independent. This suggests that such assessments may reflect SES-shaped opportunities and experiences. Conversely, the interview station, where assessors potentially had access to more details and less formal structure in their interactions, appeared SES-free. These findings imply that social capacity could result in inequalities beyond academic grades, extending to areas that may have been traditionally perceived as SES independent. Levelling the playing field across the SES divide may require more than a mere tweaking of the stations in admission process.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

CARING FOR LGBT+ INDIVIDUALS: PERCEPTIONS AND TRAINING NEEDS OF HEALTH SCIENCES STUDENTS IN HANOI, VIETNAM

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Background and Aims
Lesbian, Gay, Bisexual, Transgender and other sexual and gender minority (LGBT+) individuals have increasingly diverse healthcare needs and persistent barriers to accessing affirmative care services. However, inclusive education on LGBT+ healthcare remains limited in the current health sciences curricula, and little is known about health students or future healthcare workers' perspectives on LGBT+ health issues. This study elicits health sciences students' perceptions on LGBT+ healthcare issues, respective knowledge, training preparedness, and subsequent needs for curriculum development.

Methods
This study takes on a qualitative approach. 10 undergraduate health sciences students (age range 18-24) from various universities, including public (n=4) and private (n=6) institutions located in Hanoi, Vietnam participated in individual in-depth, semi-structured interviews. Qualitative data analysis was conducted using an inductive thematic analysis approach.

Results
Most participants highlight the prominent health concerns for LGBT+ individuals including reproductive health, sexually transmitted infections, and psychological health with additional health issues for transgender individuals. Findings also indicate inadequate attention, significant systemic bias and subtle discrimination toward LGBT+ patients, resulting in low engagement rate and patient satisfaction. Despite a relatively high confidence level with an average 7.5 on a 10-point scale in basic clinical communications, the majority acknowledged a profound lack of formal education on LGBT+ health, with knowledge primarily sourced informally from peers and social media. This highlights a critical gap, leading to a consensus on the need for mandatory, structured training in the medical curriculum, with emphasis on gender and sexual identity knowledge, communication and counselling skills. While interactive teaching methods such as scenario-based simulations, standardised patients, and expert panels were strongly endorsed, concerns about their efficacy reinforce the importance of developing a carefully designed, practical, feedback-driven educational framework.

Conclusion
This study provides insights for medical educators regarding the inadequate preparedness of health sciences students in delivering healthcare services to LGBT+ individuals, highlights the importance of communication skill development, and underscores the potential value of integrating comprehensive LGBT+ healthcare training programmes into medical curriculum. Implementing diverse teaching methods is crucial to cultivate a future healthcare workforce well equipped to provide competent, inclusive, and holistic care for LGBT+ individuals, ultimately addressing existing disparities while aligning with societal progress.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

CONCEPTUALISING AND DETERMINING LAPAROSCOPIC COMPETENCIES IN SURGICAL RESIDENT: A QUALITATIVE STUDY FROM CHINA

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Background and Aims
Minimally invasive surgery (MIS) has undergone revolutionary transformation in global healthcare systems, with laparoscopic techniques emerging as requirement across diverse surgical disciplines for surgical resident. Laparoscopic surgery presents unique challenges in surgical resident training, as current competency evaluation systems inadequately address the specialised skill requirements. This study aims to establish a comprehensive competency model for laparoscopic surgery residents and identify key indicators for surgeon selection and training.

Methods
Utilising a mixed-methods approach, one-on-one structured online interviews were conducted with 15 laparoscopic surgery specialists and 21 resident physicians nationwide. Through qualitative analysis of 730,027-character transcripts employing grounded theory, a competency framework was developed based on the Iceberg Model. Furthermore, resident physicians were divided into the excellent group and the mediocre group based on performance, and their competencies were scored double-blind and difference analysis were conducted.

Results
The finalised competency model comprises 47 validated indicators across four dimensions: knowledge (three in general knowledge and three in specific knowledge), skills (seven in general skills and six in specific skills), traits (10 in professional attitudes and 10 in professional qualities) and motives (four in social level and four in personal level). Significant competency differentials ($p<0.05$) emerged in four critical areas: surgical procedures, self-awareness, professional ethics, and optimism and confidence.

Conclusion
This evidence-based competency framework provides a multidimensional evaluation tool for laparoscopic proficiency and targeted curriculum development guidelines. The model demonstrates particular value in identifying and cultivating both implicit attribute and explicit attribute, offering a paradigm shift in laparoscopic education quality assurance.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

DOES PRACTICE MAKE PERFECT? ASSESSING THE IMPACT OF MOCK OSCES ON STUDENT CONFIDENCE AND ANXIETY LEVELS

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Background and Aims
The effectiveness of formative or mock Objective Structured Clinical Examinations (OSCEs) in preparing medical students for summative assessments remains a topic of debate. While some studies suggest that mock OSCEs enhance students' confidence and preparedness, others argue that their benefits are limited. This study evaluates the impact of a structured mock OSCE on medical students' confidence and anxiety levels.

Methods
A mock OSCE session was conducted at a single medical school involving 268 final-year medical students. Each student participated in 12 stations designed to assess core clinical competencies, including history-taking, communication, and procedural skills. Each station was facilitated by trained physician examiners and standardised patients. Students' confidence was assessed using a five-item Likert scale questionnaire administered before and after the mock OSCE. A total of 210 matched pre- and post-session responses were analysed. Statistical comparisons were performed to assess changes in confidence and anxiety levels, with significance set at $p < 0.05$.

Results
Following the mock OSCE, students reported a significant increase in confidence across multiple domains. Confidence in passing the summative OSCE improved from a mean score of 3.08 (±0.78) pre-session to 3.80 (±0.76) post-session ($p < 0.001$). Similarly, confidence in clinical procedural skills increased from 2.69 (±0.73) to 3.50 (±0.81) ($p<0.001$), and confidence in history-taking and communication improved from 3.19 (±0.77) to 3.85 (±0.71) ($p<0.001$). However, the level of anxiety about the upcoming OSCE showed no significant reduction (4.10±0.90 pre vs. 4.01±0.90 post, $p=0.307$). Additionally, while students perceived formative OSCEs as a valuable preparatory tool (pre: 4.48±0.68, post: 4.57±0.58), the increase was not statistically significant ($p=0.146$).

Conclusion
These findings suggest that mock OSCEs serve as an effective tool for improving students' confidence in key clinical competencies. The significant improvement in confidence scores supports previous literature advocating for the inclusion of formative OSCEs in medical curricula. However, the lack of a significant reduction in anxiety levels suggests that while students feel more confident in their skills, their apprehension regarding the summative OSCE remains. This may indicate that other factors, such as test-related stress and perceived stakes of the summative OSCE, play a role in student anxiety.

Mock OSCEs are an effective supplementary tool for increasing medical students' confidence in their clinical and communication skills. While they do not significantly reduce pre-exam anxiety, their role in skill reinforcement and self-efficacy is evident. Future research should explore strategies to complement mock OSCEs with anxiety-reduction interventions, ensuring holistic preparation for summative assessments.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

INTRODUCTION OF INTERPROFESSIONAL EDUCATION THROUGH THE COMPLEX CASE OF PATIENT IN THE UNDERGRADUATE SETTING: A QUALITATIVE STUDY AND STUDENT'S REFLECTION

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Background and Aims
The Indonesian Doctor Competency Standards (SKDI) are the main reference in medical education in Indonesia, through complex specific exposures relevant to general medical practice to direct learning outcomes. The importance of students' ability to manage health problems comprehensively and collaboratively is emphasized in competencies three and five in the SKDI. Students can reflect on their learning experiences to identify skills that need to be developed, by integrating preventive and community medicine, especially in handling mental health cases. This approach can support the strengthening of students in soft skills, interprofessional collaboration, and the goal of preparing medical students and building self-confidence.

The purpose of this reflection is to evaluate abilities, understanding, and confidence. Students' self in recognising the hidden aspects of the case mental health, from the PBL case (Problem-Based Learning). This learning emphasizes the importance of interprofessional approaches and psychosocial training so that students are ready to face the complexity of similar cases independently, adaptively, and collaboratively in the future.

Methods
This study uses a self-reflection method based on lecture experience in dealing with complex cases of bleeding ears during the learning process. To support interprofessional understanding in medical education, a literature study was also conducted. To identify students' perceptions, challenges, and learning needs related to mastery of competencies, especially in the context of interprofessional education, the collected reflective data was analysed qualitatively.

Results
Student reflection on the IKM "Bloody Ear" case shows an increase in understanding regarding the relationship between physical complaints and hidden mental health issues. This case is considered relevant, challenging, and encourages students to think in multiple aspects and not only focus on physical symptoms, but also psychosocial aspects. Along the way, three main core points emerged in the reflection: (1) Cognitive dissonance and uncertainty, where students feel confused and lack self-confidence when facing cases with conditions mental health disguised so as to indicate the need for early assistance; (2) Awareness of the importance of a multidimensional approach, namely the importance of an approach that does not only look at physical complaints, but also explores the mental and social aspects of the patient. And emphasizes the need for empathetic communication skills and psychosocial anamnesis; and (3) Desire for strengthening skills, especially in open anamnesis exercises, patient-centred interviews, and understanding the timing of referral to psychiatry and family involvement. Although some are not yet fully confident, students show readiness to develop through integrated clinical training and cross-professional learning. This reflection confirms the effectiveness of complex case learning in building clinical competence, soft skills such as communication, empathy, and collaboration, and readiness for real practice.

Conclusion
This complex case-based learning is effective for undergraduate students in building clinical competence, soft skills, and empathetic communication skills as well as in-depth anamnesis of hidden psychological signs. In fact, the results of student reflections reveal the importance of multidimensional thinking and not being fixated on conventional medical diagnoses. Routine integration of complex cases in the curriculum, interactive simulation-based training, and cross-professional collaboration are needed to build clinical readiness, empathy, and student confidence.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Friday 23 January 2026, 11.00am

Paris Hall & Rome Hall, Level 5

FREE COMMUNICATIONS 3

The Effectiveness of Reflective Learning Activities on Developing Self-Awareness in Health Science Students
Areerat Siripongpan, Thailand

Nurse Mini-Residency Programme: Phase 1 of Workforce Transformation
Kum Ying Tham, Singapore

Building a Community of Practice towards Advancing Scholarship of Teaching and Learning (SoTL) Among Local Faculty Members
Da-Ya Yang, China

Smart Rounds 2: A Real-Time, AI-Supported Bedside Microteaching Model for Oncology Education
Matthew George, Australia

The Relational-Invitational Approach (RIA): Relational and Technical Practices to Empower Caregivers and Improve Child Outcomes
Ming Hui Ng, Singapore

Mapping the Professional Identity of Health Coaching in a Singaporean Health System: A Qualitative Study
Muhammad Amin Shaik, Singapore

Cultural Adaptation and Psychometric Validation of the OASES Instrument for Assessing Skin Tear Knowledge in Vietnamese Nursing Students
Thi Phuong Lan Nguyen, Vietnam

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE EFFECTIVENESS OF REFLECTIVE LEARNING ACTIVITIES ON DEVELOPING SELF-AWARENESS IN HEALTH SCIENCE STUDENTS

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Background and Aims
Health science students face high levels of stress due to intensive academic and clinical demands, often lacking effective coping mechanisms. This stress negatively impacts academic performance, mental health, and overall well-being. Despite growing recognition of self-awareness as a crucial skill for stress management, few studies have examined structured educational interventions specifically designed to develop this competency in health science students. This study aimed to evaluate the effectiveness of reflective learning activities on enhancing self-awareness in this population.

Methods
This quasi-experimental study involved 141 students from the School of Public Health and Dentistry at Suranaree University of Technology (May-September 2024). The intervention consisted of structured reflective learning activities including self-reflection exercises, past-life experience analysis, stress assessment, and collaborative group discussions. Students completed the Strengths and Difficulties Questionnaire (SDQ) to explore their personal characteristics, which was subsequently used to form collaborative learning groups with diverse strengths and challenges. Data was collected using the SDQ, a validated self-awareness assessment, and satisfaction questionnaires. Measurements were taken pre-intervention, immediately post-intervention, and at a three-months follow-up. Data was analysed using descriptive statistics and paired t-tests.

Results
There were 141 total respondents, with the majority being female (91.49%). The sample consisted of 68 second-year students (48.23%) and 73 third-year students (51.77%). Most participants came from the School of Public Health (126, 89.36%). Analysis revealed that self-awareness scores increased significantly from baseline (133.66±10.08) to post-intervention (136.62±12.36, $p<0.001$) and remained significantly elevated at the third-month follow-up (136.51±12.61, $p<0.01$). The intervention received high satisfaction ratings (4.67/5.0), with qualitative feedback highlighting significantly improved self-knowledge, mindfulness, and emotional regulation abilities.

Conclusion
The significant and sustained improvement in self-awareness scores demonstrates the effectiveness of structured reflective learning activities for health science students. Despite a slight decrease between immediate post-intervention and the three-month follow-up measurements, students maintained most of their gains, suggesting successful integration of self-awareness practices into their daily lives. The high satisfaction ratings further validate the acceptability and value of this educational approach. These findings emphasize the importance of incorporating self-awareness development into health sciences curricula as a core competency.

In conclusion, structured reflective learning activities prove to be an effective method for enhancing and sustaining self-awareness in health science students, equipping them with valuable tools for stress management and professional development that extend beyond the classroom.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

NURSE MINI-RESIDENCY PROGRAMMEME: PHASE 1 OF WORKFORCE TRANSFORMATION

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Background and Aims
Workforce transformation is the strategic process by which an organisation adapts its workforce capabilities, structure, and culture to meet evolving goals and demands. Singapore's ageing population places demands on the healthcare system that will escalate in the next few decades. The current nursing workforce faces these challenges: nurses' formal education not teaching them how to manage older and frailer patients with multi-morbidities, and a significant number of foreign-trained nurses. Workforce transformation is needed to deliver and maintain quality care for our patients. The transformation requires reskilling and upskilling that enable nurses to develop new competencies. The objective of Nurse Mini-Residency Programme (NMRP) is to reskill and upskill nurses' baseline clinical competency using a multi-prong structured approach.

Methods
The Mini-Residency is Phase one of workforce transformation; Phase two is Nurse Junior Residency, and Phase three, Nurse Senior Residency, which will be launched in 2027. NMRP has three foci: [Mini-Residency 1] Managing Behaviourally Challenging Patients, [MR2] Delivering High Touch Care and [3] Recognising and Managing Acutely Deteriorating Patients. These three NMRPs are chosen based on patient profile and case-mix and potentially preventable adverse events in our institution. Each focus has four components that nurse-learners must complete: [a] self-study eLearning followed by [b] onsite Team-Based Learning (TBL) to cover knowledge, [c] self-driven on-demand conversation chatbot practice followed by [d] onsite team-based Formative Objective Structured Clinical Examination (FOSCE) to cover information gathering and communication skills. For the chatbot, seven clinical scenarios addressing behavioural challenges, high touch care and acutely deteriorating patients were developed. Each scenario required the nurse-learner to speak to/communicate with a patient/NOK avatar (Part 1) and verbalise clinical reasoning to a nurse-assessor avatar (Part 2). The chatbot scored the nurse-learners separately on Part one and two performances and provided immediate feedback. Scores achieved by nurse-learners during TBL, chatbot practice and FOSCE are collated and analysed descriptively.

Results
36 nursing officers completed the inaugural NMRP between January and April 2025. For TBL, the average score was 85.8% (SD 7.7) and 92.7% of nurse-learners rated the sessions "excellent". For the conversation chatbot, described as realistic, engaging and effective, the nurse-learners' mean scores increased up to 450% from initial attempts with repeated practice. Occasional technical issues e.g., hallucinations, scoring inconsistencies did not detract from educational value of chatbot. Learner engagement rose sharply with highest logins and practice 48 hours before each FOSCE. For FOSCE, scores improved from 43% (SD 20.5) in MR1, 63.3% (SD 18.4) in MR2 to 64.4% (SD 16) in MR3, whereby 100% of learners strongly agreed/agreed FOSCE enhanced knowledge, professional and personal growth. The FOSCE assessors observed increase in confidence and appropriate responses from the nurse-learners as they progressed from MR1 to MR3.

Conclusion
The combination and sequencing of eLearning-TBL-chatbot practice-FOSCE provide coherence between principles and practice, and enable nurse-learners to appreciate the immediate applicability of knowledge and skills. Our challenges now are [1] to obtain resources to roll out NMRP to all 2400 registered nurses, ensuring high quality learning experience and [2] assess impact on patient care.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

BUILDING A COMMUNITY OF PRACTICE TOWARDS ADVANCING SCHOLARSHIP OF TEACHING AND LEARNING (SOTL) AMONG LOCAL FACULTY MEMBERS

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Background and Aims
Many faculty who are interested in Scholarship of Teaching and Learning (SoTL) found themselves without a local supportive ecosystem for their professional development in education.

Methods
Borrowing the conceptual framework by Wenger et al. (2002) and Steinert et al. (2007), the Faculty Development Centre for Health Professions Education inaugurated a new internal faculty development programme with the explicit goal of helping young educational scholars in their pursuit of SoTL advancements. Faculty members (n=32) who are enrolled in the Joint Master's Programme for Health Professions Education (JMHPE) are the primary participants in this programme. In the preliminary phase, the programme took the form of weekly gatherings, in which members will take turns to present their own project of teaching and learning, preceded by a mini-lecture of related theories in medical education, followed by cross-examinations, constructive critique and group discussions. The presenter would set his or her own learning goals for each session and evaluate afterwards. Course satisfaction and educational impact was investigated by an online survey questionnaire.

Results
Over a period of 1 year, a total of 41 sessions have been held. Each session was joined by an average of 22 participants from the JMHPE programme. Among all participants, 95% were satisfied with its content and format, 100% believed the programme was helpful for their teaching practices, their educational projects, and their professional development as a clinician-educator. In addition, 95% participants believed it is helpful in building a Community of Practice, 90% considered it as peripheral legitimate participation in SoTL, and all believed it enhanced their own growth through peer learning. As of this writing, 11 members have recently passed their JMHPE thesis defence after the inauguration of this programme.

Conclusion
One of the forms of promoting excellence in faculty development is helping young educational scholars in their pursuit of advancing SoTL. Towards that goal, building a Community of Practice by drawing like-minded faculty members for academic exchange, communication, and networking on a regular basis can bring favourable educational outcomes.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

SMART ROUNDS 2: A REAL-TIME, AI-SUPPORTED BEDSIDE MICROTEACHING MODEL FOR ONCOLOGY EDUCATION

George M

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Background and Aims
Inpatient oncology education is often compromised by clinical service pressures, particularly in regional centres where structured bedside teaching is deprioritised. This results in inconsistent supervision for junior doctors and medical students, limiting their confidence, clinical reasoning, and empathetic communication. Large language models (LLMs), such as ChatGPT, offer new opportunities to augment clinical education. We developed and piloted “Smart Rounds 2”, a real-time, AI-integrated bedside microteaching model. The study aimed to evaluate its feasibility, educational impact, and potential to enhance emotional intelligence through AI-supported analysis of clinical communication.

Methods
Over eight weeks, structured 20-minutes microteaching sessions were embedded into weekday inpatient oncology ward rounds at a regional cancer centre. Participants included Year four to five medical students, resident medical officers, and basic physician trainees. Sessions focused on foundational oncology concepts, systemic therapy, communication, and tumour-specific management, with AI tools integrated at multiple levels. ChatGPT and Google LLM were used to generate pre-session MCQs, simulate clinical cases, provide real-time suggestions during discussion, and support post-session reflection. Literature appraisal and journal club preparation were enhanced through AI-assisted research tools including Elicit, PubMed AI, and Research Rabbit, which enabled rapid evidence retrieval, summarisation, and visual mapping of relevant publications. Clerking exercises utilised imaginary, de-identified patient cases based on the FAST-ONC mnemonic. Both human and AI-generated clerking outputs were reviewed for completeness, specificity, and empathetic tone. AI’s ability to analyse candidate language and detect patient-centred cues was evaluated. Interactive components included live GPT demonstrations and AI-generated questions, allowing adaptive, learner-responsive teaching in real time.

Results
Twenty-five participants completed the programme without disruption to clinical workflow. 95% found the sessions clinically relevant, while 88% reported improved confidence in clinical communication and oncology reasoning. 92% supported routine adoption. Post-session MCQ scores improved by 21%. AI-assisted clerking showed 95.5% accuracy, effectively identifying psychosocial cues and empathetic responses, including anxiety, distress, or supportive language. Educators observed that AI analysis enhanced feedback quality and reflection by highlighting emotional and contextual nuances. Learners appreciated the realistic AI scenarios, structure, and time efficiency. The dual assessment format using both human and AI clerking versions allowed for deeper reflection and promoted a richer group learning experience that enhanced cognitive and emotional learning domains.

Conclusion
Smart Rounds 2 is a feasible, scalable, and impactful bedside teaching model that integrates AI meaningfully into real-time clinical education. It improves structured learning, fosters emotional intelligence, and enhances both cognitive and interpersonal skills through innovative use of AI-generated feedback. The comparison between human and AI clerking provided valuable insights into communication and empathy, supporting reflective learning and educational standardisation. With appropriate safeguards, this model offers a replicable and interdisciplinary framework for integrating technology-enhanced learning in clinical settings, particularly in resource-constrained environments. Smart Rounds 2 contributes to faculty development and represents a forward-thinking approach to medical education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE RELATIONAL-INVITATIONAL APPROACH (RIA): RELATIONAL AND TECHNICAL PRACTICES TO EMPOWER CAREGIVERS AND IMPROVE CHILD OUTCOMES

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Background and Aims

In paediatric intervention settings, traditional training for therapists often emphasizes technical expertise but may provide less guidance on the relational skills for caregiver engagement. While technical practices like providing information and coordinating care are essential, relational practices like partnership and respectful support have also been associated with improved caregiver confidence and positive behavioural changes in children. This underscores the need for relational skills training alongside technical practice. Furthermore, emerging priorities for caregiver empowerment and interdisciplinary collaboration reinforce this need.

The Relational-Invitational Approach (RIA) training is a professional development programme that builds relational competencies in all phases of intervention among allied health professionals through a 1½-day workshop, online modules, and practice-based peer discussions. RIA offers a structured and shared framework that emphasizes building partnership with and providing supportive care to caregivers. It is applicable across diverse professionals in paediatric intervention settings–offering a common relational language to strengthen collaborative, family-centred care.

This study examines how technical and relational practices among RIA-trained therapists relate to caregiver self-efficacy and child challenging behaviour, with particular emphasis on relational components-partnership and respectful care-which are central to the RIA framework.

Methods

Caregivers (n=85) of children with developmental concerns aged zero to nine years were recruited during their child's intervention with 26 RIA-trained therapists (i.e. educational, speech and language, and occupational therapists) at KK Women's and Children's Hospital, Singapore.

Therapist behaviour was assessed using caregiver-reported Measure of Processes of Care (MPOC-20). Technical practices were measured using the subscales, Providing General Information (PGI), Providing Specific Information (PSI) and Coordinated and Comprehensive Care (CCC). Relational practices were measured using the subscales, Enabling and Partnership (EnP) and Respectful and Supportive Care (RSC).

Individual regression analyses were conducted to examine the impact of MPOC subscales on caregiver self-efficacy, assessed using the Parent Activation Measure for Developmental Disabilities and child challenging behaviour, assessed using Child's Challenging Behaviour Scale, version two.

Covariates for caregiver self-efficacy included pre-therapy caregiver self-efficacy, child's age, caregiver's gender, caregiver's ethnicity, household income, and number of children. Covariates for child challenging behaviour included pre-therapy child challenging behaviour, child's age, ethnicity, household income and number of children.

Therapist-level effects were excluded from analyses as intraclass correlation coefficients showed that the outcomes were not significantly affected by the identity of the therapist.

Results

Regression analyses showed that all MPOC subscales significantly predicted greater caregiver self-efficacy post-therapy: EnP (ß=.32), PGI (ß=.37), PSI (ß=.32), CCC (ß=.33), and RSC (ß=.36), all $p \leq .001$.

Only EnP (ß=-.19, p=.029) and PSI (ß=-.17, p=.048) significantly predicted lower child challenging behaviour post-therapy.

Conclusion

RIA training was associated with improved caregiver self-efficacy through both relational and technical practices, with enabling partnership and specific information reducing child challenging behaviour. These findings reinforce RIA's value as a structured educational strategy to develop relational competencies and support collaborative, family-centred care in paediatric practice.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

MAPPING THE PROFESSIONAL IDENTITY OF HEALTH COACHING IN A SINGAPOREAN HEALTH SYSTEM: A QUALITATIVE STUDY

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Background and Aims
Chronic disease prevalence is a growing global public health concern. In rapidly ageing populations like Singapore, these conditions drive up mortality rates, and healthcare costs. The burden has shifted healthcare priorities towards preventive and long-term management strategies. Health coaching (HC) has emerged as one such response. It is defined as a client-centred approach that empowers individuals to make sustainable health behaviour changes. Currently, HC is fast becoming an essential role within the various healthcare clusters of Singapore. Within the National Health Group (NHG), HCs work alongside physicians, nurses, and allied health professionals. Yet, how these HCs have formed their professional identity (PI) within the healthcare ecosystem remains unclear.

Methods
This qualitative cross-sectional study recruited N=20 HCs from NHG's Population Health Campus and NHG Polyclinics based on the following inclusion criteria: (a) HC employed by NHG, (b) aged 21 years or older, and (c) having held their current role for at least three months. Guided by a constructivist paradigm, the study aimed to understand the essence of PI formation from the perspective of those experiencing it. In-depth interviews were conducted to explore how NHG HCs have formed their PI, their aspirations and motivations in shaping this identity, and the perceived barriers to its further development. Data collection achieved thematic saturation. Transcripts were analysed following Braun and Clarke's approach to thematic analysis.

Results
Findings revealed nine themes. Six themes described how HCs formed their PI: (1) Purpose-driven practice (alignment with passions, interests, and intrinsic motivations), (2) A Fulfilling Role (alignment with personal values, patient outcomes, and personal and professional growth goals), (3) Crafted Competence (alignment with international frameworks on health coach specific skills), (4) Patient Activators (facilitators of lifestyle change), (5) Psychosocial Allies (providers of psychosocial care), (6) Health Service Connectors (bridge to other healthcare services). Three themes characterised their struggles in PI formation: (7) Struggling for visibility (absence of official certification and limited awareness of the role by patients and other health professionals), (8) Systemic Misalignment (disconnect between coaches' values or intended scope and the organisation's operational or strategic priorities), (9) Becoming Credible (the journey of earning trust, credibility, and a sense of belonging in healthcare spaces).

Conclusion
This study explored how HC form their PI within a Singaporean public healthcare system. Findings revealed six themes reflecting identity formation through purpose, values, competence, and relational roles. Three additional themes captured challenges, including limited recognition, systemic misalignment, and the ongoing pursuit of credibility. Together, these findings highlight the evolving nature of the HC role and the need for clearer role definition, formal recognition, and organisational support to strengthen PI within multidisciplinary healthcare settings.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

CULTURAL ADAPTATION AND PSYCHOMETRIC VALIDATION OF THE OASES INSTRUMENT FOR ASSESSING SKIN TEAR KNOWLEDGE IN VIETNAMESE NURSING STUDENTS

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Background and Aims
Skin tears (STs) are traumatic wounds that frequently occur in vulnerable populations, and their prevention and management are essential nursing competencies. Adequate knowledge is essential for safe and effective care, yet assessment tools for evaluating such knowledge remain limited in Vietnam. Despite global recognition of the OASES instrument for assessing knowledge on skin tears, no validated Vietnamese version currently exists. This study aimed to culturally adapt and validate the Vietnamese version of the OASES for use among nursing students, thereby supporting evidence-based education and assessment practices in Vietnam.

Methods
A two-phase methodological design was adopted. In Phase one, the OASES instrument was translated into Vietnamese following a modified Brislin model, including forward and back translation, expert review by seven wound care specialists, and pilot testing among 31 nursing students. In Phase two, psychometric testing was conducted with 326 nursing students at the undergraduate and graduate levels. Validity was assessed through content validity indices (I-CVI, S-CVI) and known-group comparisons. Reliability was measured, including internal consistency (Cronbach's alpha) and test-retest reliability (ICC). Item difficulty and discrimination indices were also analysed.

Results
The V_OASES demonstrated excellent content validity, with S-CVI ranging from 0.95 to 0.96 and most I-CVI values exceeding 0.78. Internal consistency was strong (Cronbach's alpha = 0.79), and test-retest reliability in 83 students showed good temporal stability (ICC=0.78). Known-group comparisons revealed significant differences in scores across educational levels and training experience ($p<0.001$), confirming construct validity. The average item difficulty was 0.50, and the discrimination index averaged 0.30, indicating appropriate measurement properties.

Conclusion
The Vietnamese version of the OASES is a valid and reliable tool for assessing nursing students' knowledge of skin tear prevention and management. It provides a practical means for identifying knowledge gaps, evaluating learning outcomes, and guiding wound care education within nursing curricula, thereby supporting evidence-based wound care practices in Vietnam.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Friday 23 January 2026, 11.00am

London Hall & Washington Hall, Level 5

FREE COMMUNICATIONS 4

The Association between Medical Student Selection and a "Fit-For-Purpose" Medical Workforce in Low- and Middle-Income Countries (LMICS) in The Asia-Pacific Region: A Scoping Review
William May, Fiji Islands

Validation of the Professional Identity Formation Developing Scale Among Vietnamese Medical Students: A Psychometric Analysis
Tan Nguyen Thi Minh, Vietnam

Development and Pilot Study of Psychosomatic Medicine Training Curriculum for General Practice Residents in China Using Kern's Six-Step Approach
Lei Huang, China

When Everyone Gathers Firewood then the Fire Will Burn Brightly (Chinese Proverb) – Virtual Interprofessional Patient Safety Have We Succeeded in Shifting the Mindset?
Sophia Bee Leng Ang, Singapore

An Exploratory Study of Effective Interactive Sports Medicine Webinars: Are Our Best Intentions Translated to Best Experiences for Learners?
Ang Tee Lim, Singapore

Harnessing the Digital Frontier: A Strategic Approach to Learning Hematology Morphology Using Online Resources
Xiangjun Ye, China

Brain Waves: Escaping Traditional Boundaries in Stroke Education
Il Fan Tan, Singapore

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE ASSOCIATION BETWEEN MEDICAL STUDENT SELECTION AND A "FIT-FOR-PURPOSE" MEDICAL WORKFORCE IN LOW- AND MIDDLE-INCOME COUNTRIES (LMICS) IN THE ASIA-PACIFIC REGION: A SCOPING REVIEW

[1]May W, [2]Larkins S, [3]Sen Gupta T, [4]Johnston K, [5]Prideaux D, [6]Weerasinghe J

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Background and Aims
Medical schools worldwide have struggled for decades to determine the most effective strategy for selecting medical students to meet their healthcare system needs. Despite recent changes in the direction of medical education, most medical schools have been slow to respond and adapt their selection to suit current societal needs. Applying a standard admission strategy across dissimilar contexts, such as the Asia-Pacific region, is challenging due to differing school missions and health priorities.

In addition to academic achievements, several selection approaches have been implemented across the globe, with the hope of selecting those who are "best" suited to be doctors. The complexity and competitiveness of medical student selection remain a contentious subject among medical schools today. An equitable and fit-for-purpose selection approach is important to meet priority community needs and ensure institutional accountability.

This scoping review aims to explore what selection strategies medical schools in LMICs within the Asia-Pacific region use to contribute to a "fit-for-purpose" workforce.

Methods
The review was conducted between July 2024 to December 2024 using the methodology outlined by Arksey and O'Malley 2005. A protocol to guide the review was developed and refined using the Joanna Briggs Institute framework and input from the co-authors.

Inclusion and exclusion criteria were developed to meet the objectives of this review. SCOPUS, EMCARE, OVID Medline, ERIC, and CINAHL databases were searched. Grey literatures were searched, and studies were extracted using the inclusion criteria. The study population consisted of medical students and graduates. Studies from LMICs within the Asia-Pacific region only were included. Key concepts searched included selection, recruitment, admission and matriculation. The outcomes of interest were health workforce, medical workforce, fit-for-purpose, medical graduates, doctors and physicians.

The Quality Assessment Tool for Studies with Diverse Designs (QATSDD) was used to assess the quality of selected studies. The information extracted from each study was deductively coded using a framework that captured selection approaches, factors informing the selection strategy, and fit-for-purpose workforce considerations. This was followed by inductive coding to extract major themes.

Results
A total of 5046 studies were retrieved from the five databases. 10 studies from the five databases and six from other sources were included after applying the exclusion and inclusion criteria. Five major themes emerged from the inductive analysis of the included studies. Engagement of key stakeholders in the selection approach (political validity), prioritising the health needs of the communities that medical schools serve (social accountability), responding to the needs in which schools are located (responding to context), ensuring a sustainable selection approach and a purposive and mission-driven strategy were the major themes that emerged from the published studies.

Conclusion
This scoping review highlights the different selection approaches that medical schools use within the LMICs in the Asia-Pacific region. The engagement of stakeholders in the selection process, premised

on a clear mission and purpose, is imperative within each context. A proposed selection framework aimed at contributing to a “fit-for-purpose workforce” could guide selection approaches in low- and middle-income countries (LMICs) in the Asia-Pacific region and similar contexts.

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MEDICAL AND HEALTH PROFESSIONS EDUCATION

VALIDATION OF THE PROFESSIONAL IDENTITY FORMATION DEVELOPING SCALE AMONG VIETNAMESE MEDICAL STUDENTS: A PSYCHOMETRIC ANALYSIS

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Background and Aims
Professional identity formation (PIF) is a crucial developmental process that involves integrating core values, knowledge, and skills into individual medical students, aiding their transformation into ethical and competent healthcare professionals. A well-developed and ethical professional identity is essential for future physicians to navigate complex clinical environments and uphold professional responsibilities. The Professional Identity Formation – Developing Scale (PIF-DS) is a quantitative, self-administered questionnaire developed by Tagawa to assesses the degree of maturation and socialisation as a physician. However, since the DS was developed and validated in a Japanese context, it requires rigorous validation of its applicability and psychometric properties in other cultural settings, such as Vietnam.

Methods
This study aims to validate the PIF-DS specifically for six-year medical students (MS-Y6) at the University of Medicine and Pharmacy at Ho Chi Minh City (UMP-HCMC). A multi-phase mixed-method study design was adopted, following guidelines for instrument validation. Data from a sample of 305 MS-Y6 at UMP-HCMC were analysed. The validation process involves: 1) Content validity: Expert review by Vietnamese medical educators experienced in PIF. Cognitive interviews with a subset of students assessed item comprehension and clarity. 2) Construct validity: Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were conducted on collected data to determine if the original five-factor structure is consistent in the Vietnamese population. 3) Internal consistency: Cronbach's alpha coefficients will be calculated for the overall scale and its identified sub-factors.

Results
EFA identified a five-factor structure: self-control as a medical doctor, awareness of being a medical doctor, reflection as a medical doctor, execution of social responsibility, and external and internal self-harmonisation, which collectively explained 63% of the variance. The two emerged factor structures were compared with the original structure of PIF-DS. CFA confirmed model 3, with the ninth item removed, had acceptable model fit (CFI = 0.92, TLI = 0.89, RMSEA robust = 0.086, SRMR = 0.056) for this specific population. Internal consistency was acceptable to robust across all factors, with Cronbach's alpha ranging from 0.66 to 0.88. These findings provide preliminary evidence for the validity and reliability of the PIF-DS in assessing PIF among MS-Y6 at UMP-HCMC, with important implications for curriculum development and future cross-cultural research in Vietnamese medical education.

Conclusion
Successfully validating the DS in Vietnam will provide medical educators with a culturally appropriate, reliable, and valid quantitative tool to measure and monitor PIF among medical students. This will facilitate curriculum evaluation, research on factors influencing PIF, and the design of targeted interventions to support students' professional development, ultimately contributing to the formation of ethical and competent physicians in Vietnam.

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MEDICAL AND HEALTH PROFESSIONS EDUCATION

DEVELOPMENT AND PILOT STUDY OF PSYCHOSOMATIC MEDICINE TRAINING CURRICULUM FOR GENERAL PRACTICE RESIDENTS IN CHINA USING KERN'S SIX-STEP APPROACH

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Background and Aims
China is presently confronted with a substantial shortage of mental health resources, even as the demand for psychosomatic medicine services at the primary care level continues to escalate. General practitioners (GPs), who constitute the foundation of primary healthcare delivery, are frequently the first point of contact for individuals with psychosomatic conditions. However, their ability to accurately identify and effectively manage such psychosomatic disorders remains limited, highlighting a critical gap in service provision and clinical competency. Existing training programmes for mental health are predominantly theoretical, with insufficient focus on competency, thereby limiting practical application and service quality. As a result, there is a pressing need for structured-design, competency-based training programme to enhance the psychosomatic care capabilities of GPs. These efforts aim to advance the capacity of GPs to deliver holistic, community-based mental health care.

Methods
We employed Kern's six-step approach to design and implement a psychosomatic medicine training curriculum tailored for GP residents, guided by the principles of competency-based medical education (CBME). The curriculum adopted a blended learning model, integrating online theoretical modules, face-to-face workshops, standardised patient (SP) interactions, and Balint groups. A pilot implementation was conducted at a residency training hospital with 29 participants. Evaluation metrics included pre- and post-training assessments of knowledge, SP communication ratings, and clinical reasoning performance, analysed using paired statistical tests.

Results
Of the 29 participants, 26 completed the programme and assessment, with a mean course completion rate of 75.1%. Statistically significant improvements were observed in the scores of residents' doctor-patient communication skills and SP' satisfaction of doctor-patient relationship ($P<0.001$). Post-training knowledge scores also increased significantly ($P=0.005$). While clinical reasoning abilities showed upward trends, the improvement did not reach statistical significance ($P=0.063$). Participants reported high satisfaction with the course structure and content, particularly the integration of practical learning elements.

Conclusion
This pilot study demonstrated the design process and efficacy of psychosomatic medicine curriculum for general practice residents in China using Kern's Six-Step approach. The pilot programme evidenced the feasibility of curriculum and effectively improvement in both cognitive and interpersonal competencies. Future directions include strengthening faculty development, and adapting the curriculum to diverse regional contexts to support national integration by multi-centre trials.

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WHEN EVERYONE GATHERS FIREWOOD THEN THE FIRE WILL BURN BRIGHTLY (CHINESE PROVERB) – VIRTUAL INTERPROFESSIONAL PATIENT SAFETY HAVE WE SUCCEEDED IN SHIFTING THE MINDSET?

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Background and Aims
The evidence of the impact of education on patient safety and healthcare quality has led to the introduction of undergraduate curricula in medicine, nursing, pharmacy, and dentistry schools. As error in health care often results from system (latent) errors, interprofessional (IPE) patient safety teaching becomes an essential component to highlight the concept of system error and emphasize every individual role in an organisation. The World Health Organisation (WHO) Framework for Action on IPE and Collaborative Practice defines IPE as occasions when two or more professions learn with, from, and about each other to improve collaboration and the quality of care.

There are, however, challenges with organisation and designing IPE sessions. Recruitment for faculty members, scheduling for large groups and students from different schools, sourcing for venue, and disruptions of sessions because of social isolation and sickness, especially during the peak of coronavirus (COVID-19) infection, are complex tasks. To address the pressing need for enhanced patient safety education during the COVID-19 pandemic, we implemented a comprehensive re-design of the IPE Patient Safety Workshop (PSW), converting it to a virtual format. This initiative not only introduced a revised syllabus but also restructured the programme to effectively integrate virtual IPE PSW components into the curricula of our three healthcare schools: medicine, nursing, and pharmacy.

Methods
The IPE programme was organised and conducted by the Yong Loo Lin School of Medicine 2022-2023. This initiative involved all three healthcare schools, with participation from faculty members and students in their respective programmes: third-year medical students, second-year nursing students, and third-year pharmacy students. Developing the virtual IPE programme for PSW involved collaboration among faculty representatives from three healthcare schools. This comprised of pre workshop reading material and interprofessional assignment followed by a lecture and then 5 break out rooms. Learning outcomes were knowing their role in 1) Highlighting system issues and latent errors, 2) Infection Prevention, 3) Communicating effectively, 4) Use of SBAR for handover, 5) Reporting incidents and near misses, 6) Investigation of near misses and incidents.

Results
When comparing pre- and post-workshop score differences for medical, nursing, and pharmacy students, linear regression was applied to each student type individually.

The improvement in scores was significant for all student categories (all $p<0.05$).

Medical students experienced an increase of 32.26% in their scores from the initial assessment following the lesson.

Nursing students saw a 26.97% increase from their starting scores post-lesson, while pharmacy students recorded a 26.89% increase from their initial scores after the lesson.

Conclusion
The successful implementation of virtual IPE PSWS paves the way for models in the future, blending the advantages of online and collaborative learning. Our findings underscore the significance of adaptability in educational approaches and the necessity of equipping future healthcare professionals with the comprehensive knowledge and collaborative skills essential in shifting mindsets for improving patient safety outcomes. This is essential in a rapidly evolving healthcare landscape so that the future of healthcare can burn more brightly.

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AN EXPLORATORY STUDY OF EFFECTIVE INTERACTIVE SPORTS MEDICINE WEBINARS: ARE OUR BEST INTENTIONS TRANSLATED TO BEST EXPERIENCES FOR LEARNERS?

Lim AT

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Background and Aims
Sports Medicine Specialty Training in Singapore involves three years of training with rotations in clinical postings and a Sports Science posting. There is a weekly face-to-face lecture designed to cover topics not typically addressed during clinical sessions, which was converted to webinars during the COVID-19 pandemic. The webinars were also made open to the rest of the Sports Medicine community locally. The challenges of webinars have been well documented, and it is known to decrease social interaction, gives a sense of isolation, and learners have a slower learning progress, and lower satisfaction as well.

In this study, we aim to find out about the registrars' experiences during webinars with regards to its ease of access, level of interaction between participants and speakers, as well as among registrars, and if the protocols put in place during the webinars help to enhance social interaction.

Methods
This is a qualitative study, with social constructivism as its epistemological worldview and seeks to investigates the registrars' first-hand experiences via semi-structured interviews, and involved all seven registrars in Singapore adjuring the training. The interview was transcribed verbatim by the Principal Investigator, with member checking to ensure accuracy, and reflexive journal was kept by the Principal Investigator with peer debriefing done to ensure confirmability. The interview guide was based on framework of isostructural Model for Effective Online Learning by Marks et al., and the Three Protocols to Aid Online Social Interaction by McInnerney and Roberts. Essence of registrars' experiences was distilled through content analysis using a phenomenological approach and template analysis was done emphasizing the use of a priori themes and groups.

Results
The experiences of the registrars have mostly been positive, with most registrars finding the ease of access to the lectures in webinar format increasing participation, and the level of interaction between speakers and participants were similar to face-to-face sessions. The use of synchronous communication and forming stages had also improved interaction. However, the large group size of participants due to the ease of participation and the opening of the webinars to the rest of the Sports Medicine community, hindered interaction among registrars. There was also a lack of non-verbal cues due to cameras being turned off.

Conclusion
Registrars experienced all three characteristics of effective online learning, namely, web-based course flexibility, instructor-learner interaction, as well as learner-learner interaction. Protocols for enhancing online interaction were generally positive, but could be optimised (e.g., turning on cameras). However, the registrars noted that due to the increased number of participants, interaction among registrars was hindered.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

HARNESSING THE DIGITAL FRONTIER: A STRATEGIC APPROACH TO LEARNING HEMATOLOGY MORPHOLOGY USING ONLINE RESOURCES

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Background and Aims
Hematology morphology-the microscopic examination of blood and bone marrow cells-is essential for accurate diagnosis and clinical decision-making. Traditional training methods, though foundational, often face limitations such as restricted access to diverse cases, inconsistent expert instruction, and logistical constraints. The increasing availability of digital technologies presents a transformative opportunity to address these challenges and to help non-English-speaking professionals access advanced medical literature, which is predominantly published in English.

Methods
We conducted a comprehensive narrative review of digital tools relevant to hematology morphology education. The review systematically examined a wide range of online resources, including e-books, annotated image banks and digital atlases (e.g., ASH Image Bank), virtual microscopy platforms offering whole-slide imaging, interactive case modules and quizzes, collaborative online forums and social media (e.g., #HemePath on Twitter), and video-based learning platforms such as MOOCs and YouTube channels. We also analysed the role of AI-assisted machine translation tools, specifically Google Translate, in bridging language barriers for non-English-speaking learners. Based on this synthesis, we propose a structured, four-stage digital learning framework designed to guide learners from foundational knowledge to advanced problem-solving, aligned with adult learning principles.

Results
The review confirms that digital platforms significantly enhance educational accessibility, flexibility, and learner engagement. Online image banks and whole-slide imaging provide learners with exposure to a broader and more diverse range of hematological conditions than is possible in a single institution, addressing a key limitation of traditional training. Interactive cases and quizzes promote active learning, critical thinking, and standardised, repeatable practice. Furthermore, the strategic use of machine translation proves highly effective. Google Translate, when coupled with human oversight, is a powerful tool for acquiring and understanding advanced English-language medical literature, a fact substantiated by the author's own success in translating and publishing scholarly works with its aid. The proposed learning pathway integrates these tools into four progressive stages: (1) Foundational Knowledge Acquisition, (2) Visual Recognition, (3) Interactive Case-Based Learning, and (4) Collaborative Learning and Advanced Problem Solving, all supported by continuous assessment.

Conclusion
A structured, digitally enabled approach can effectively complement traditional microscope-based training, democratise access to high-quality morphology education, and support global equity in medical learning. For non-English-speaking professionals, leveraging digital resources and AI-driven translation tools is a powerful strategy to overcome language barriers, engage with the global scientific community, and foster a habit of lifelong learning. This integrated framework has the potential to significantly enhance diagnostic skill acquisition worldwide. Empirical validation of the proposed model is encouraged in future educational research.

Our research was supported by the Education and Teaching Reform Project of the Fourth Affiliated Hospital, Zhejiang University School of Medicine, under grant number JG20240212.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

BRAIN WAVES: ESCAPING TRADITIONAL BOUNDARIES IN STROKE EDUCATION

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Background and Aims
Edutainment, including escape rooms, is increasingly used in education as it combines learning with engagement. Interprofessional healthcare training, while crucial for improving collaboration and patient care, faces implementation challenges.

This study addressed existing challenges by developing and evaluating an innovative educational escape room in a simulation facility to enhance stroke knowledge, communication, teamwork, and leadership skills among healthcare professionals.

Methods
The study examined 36 participants from various professions, divided into five inter-professional teams who navigated through an escape room experience grounded in game theory. The scenario followed a stroke patient's journey through interconnected rooms. Participants had to work collaboratively to gather clues to find out the context of this patient's current stroke presentation.

There was a total of five rooms. Two rooms set in the present – patient's home and workplace, where participants obtained vital clues about the patient's background, social circumstances and medical history. Three rooms set in the past – following the patient through her journey at a previous admission for stroke. One room focused on the hyper-acute phase, where participants encountered challenges such as brain imaging interpretation and got hands-on experience with a simulated thrombectomy procedure. The next room focused on experiential learning of various stroke deficits at the acute-subacute phase, while the final room concluded with a focus on stroke recovery and transition to community care.

Each environment was carefully crafted with distinct learning objectives ranging from different aspects of stroke care delivery to social determinants of health. In each room, team members had to work collectively to define roles and communicate effectively to complete tasks, discover passcodes and obtain clues to finally complete an 'admission note' for this patient's current presentation.

At the end of the session, participants were asked to complete a feedback form which assessed four key areas: satisfaction and engagement, learning and problem-solving, teamwork and collaboration, and gaming immersion.

Results
Participants reported high engagement levels and enhanced problem-solving abilities, along with valuable cross-professional learning opportunities. Quantitative feedback using a 5-point Likert scale showed strong results (mean score) across all categories, particularly in stroke care understanding (4.58), teamwork promotion (4.63), and environmental immersion (4.49). The difficulty level was rated appropriately challenging (3.56).

Qualitative responses revealed improved teamwork dynamics, communication skills, and stroke management approaches. Participants particularly valued applying their knowledge to solve puzzles in authentic scenarios that mirrored actual patient care scenarios. The combination of practical problem-solving and realistic scenarios created a meaningful and memorable learning experience for the participants.

Conclusion

The implementation of escape room successfully combines fun and enjoyment with knowledge development with practical skills, fostering improved teamwork and communication among healthcare providers. By creating an engaging learning environment, escape room effectively promote collaborative efforts and enhance understanding across professional boundaries.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Friday 23 January 2026, 1.45pm

Hua Yue 1, Level 3

FREE COMMUNICATIONS 5

Perceptions of Unprofessionalism in Anaesthesiology Graduate Medical Education: Exploring Influences of Role, Age, Gender, Race, and Institutions
Fei Chen, United States of America

AI-Augmented Inductive Thematic Coding: Expediting Interview Data Analysis in Health Professions Education
Zheng-Wei Lee, Singapore

The Evolution of Surgical Education Through Simulation: A Global Bibliometric Review (2019-2024)
Jeffrey Ariesta Putra, Indonesia

A Novel Simulation Model Based on Rind-On Pork Belly Portions with Nipples for Practicing Superficial Mass Resection
Qida Hu, China

Learning on Demand: A Review of Social Media in Ophthalmic Surgical Education
Xin Wei, Singapore

Jumpstart to the Wards: Transforming the Triple Jump into a Bridge to Clinical Readiness
Tipaporn Thongmak, Thailand

From Stigma to Support: A Student-Led Mental Health Peer Support Project at The University of Medicine and Pharmacy at Ho Chi Minh City to Advance the Happy Schools Framework in Higher Education
Han Nguyen Thao, Vietnam

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

PERCEPTIONS OF UNPROFESSIONALISM IN ANAESTHESIOLOGY GRADUATE MEDICAL EDUCATION: EXPLORING INFLUENCES OF ROLE, AGE, GENDER, RACE, AND INSTITUTIONS

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Background and Aims
Unprofessional behaviours erode trust and psychological safety, adversely affecting physician well-being and patient care. In the context of graduate medical education (GME), these behaviours can have far-reaching impacts on both trainees and attendings. This study aims to investigate how perceptions of unprofessionalism vary by role (trainee versus attending), gender, race/ethnicity, and institutions. In addition, we explored the criteria considered by attendings and trainees when evaluating professionalism or lack thereof.

Methods
A cross-sectional anonymous survey was administrated to trainees (residents and fellows) and attendings from five anaesthesiology residency programmes across the United States. The questionnaire included demographic questions and 19 vignettes developed through a Delphi process depicting various behaviours, believed to be controversial with regards to professionalism, falling into five categories: Verbal, Supervision, Quality, Engagement, and Time. Participants rated the behaviours on a 7-point Likert scale (1 = "extremely professional" to 7 = "extremely unprofessional") and were able to comment on the vignette and justify their rating. Proportional odds models were fit to analyse differences in survey responses based on role (residency/attending), gender, race/ethnicity, age, underrepresented status, and institution, using a Bonferroni correction for multiple testing. Content analysis was conducted using a combined inductive and deductive coding approach. Inductive coding allowed themes to emerge organically, while deductive coding applied predefined influence levels from a modified Social Ecological Framework.

Results
A total of 369 participants responded (response rate=35.9%), comprising 153 trainees (response rate=37%) and 215 attendings (response rate=35.2%). Significant variations in perception were found based on role, institution, and age. These variations were particularly evident in vignettes involving gender-sensitive remarks, phone usage during patient care, and work-life balance decisions. No significant differences were observed related to gender, race/ethnicity, or underrepresented group status. Content analysis revealed four key themes with subthemes that participants used to justify their ratings of the level of (un)professionalism: Accountability and Responsibility (subthemes: Role Expectations, Impact), Cultural and Institutional Norm (subthemes: Frequency, Cultural Background), Respect and Hierarchy (subthemes: Respect, Power Dynamics), and Empathetic Attribution (subthemes: Assumptions, Intention, Perspective Taking). The subtheme of Role Expectations was most common, appearing in all categories of vignettes. In addition, for vignettes of the “Verbal” category, Respect and Hierarchy and Cultural and Institutional Norm were the most common themes. For vignettes concerning “Supervision”, Respect and Hierarchy and Frequency were often discussed. For “Quality” vignettes, Empathetic Attribution and Impact were key considerations. In vignettes involving “Engagement”, considerations of Empathetic Attribution and Frequency often emerged. Finally, for “Time” vignettes, the most common themes were Empathetic Attribution and Accountability and Responsibility.

Conclusion
Perceptions of unprofessional behaviour are significantly shaped by role, age, and institutional context, emphasizing the need for educational strategies that accommodate diverse perspectives and cultures. Our findings highlight the complex, context-dependent nature of professionalism in anaesthesiology GME and reveal underlying assumptions and biases that influence evaluations. These insights can inform efforts to improve professionalism training and assessment in GME.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

AI-AUGMENTED INDUCTIVE THEMATIC CODING: EXPEDITING INTERVIEW DATA ANALYSIS IN HEALTH PROFESSIONS EDUCATION

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Background and Aims

Qualitative research and data analysis are critical in interpreting richness and complexity of the social phenomena and human experiences. It can generate large amounts of textual data, which require interpretation, codification and categorisation. This can be time-consuming and daunting, especially for novice researchers, who may lack the broad knowledge base and familiarity with the steps and techniques necessary to generate rich and meaningful codes and themes.

Given the importance of interpretation and context in thematic analysis, a semi-automated, human-AI approach can offer significant advantages. It can help streamline the more mechanical and data-intensive stages of analysis, while preserving human judgement for the nuanced, interpretive aspects. Here, we explore using an AI tool, TextInsight, to expedite the initial phase of qualitative data analysis (QDA) within health professions education research, thereby addressing the challenges of time and cost in conventional approaches.

Methods

TextInsight, powered by GPT-4o, was developed in-house within a secure cloud environment to ensure the confidentiality of transcription data. TextInsight adopts the capabilities of LLM to rapidly analyse extensive amounts of text data and extract insights.

We tested it on 10 transcripts of interviews lasting 45-60 minutes each. These data were from a study published in a health professions education journal, where the analysis was conventionally conducted by human researchers.

Results

TextInsight processed all 10 transcripts in under 10 minutes, generating 40-80 codes per transcript. Overlapping terms were manually assessed for inclusion, followed by a second phase of manual analysis to identify codes from the human-coded transcript. TextInsight was able to identify codes that were comparable to the human coder, such as "student support", “institutional support”, “locality importance” and “admission criteria”.

We showed that AI-augmentation greatly reduces the time and effort needed for the initial, often laborious, stages of QDA, particularly for novice researchers. By coding transcripts in minutes, TextInsight saved time and manpower, potentially enabling researchers to move from data familiarisation and coding to theme development more quickly and efficiently. Additionally, TextInsight may broaden the scope of analysis by suggesting new themes and ideas that may not be immediately apparent to novice researchers, serving as a foundation for brainstorming and refining the thematic framework.

However, we sound a note of caution. We observed that TextInsight sometimes oversimplified complex data. Because it processes transcripts line by line, it may not capture meaning that is only apparent when interpreted across multiple sentences. These limitations may potentially lead to impoverished or even misleading codes and themes.

Conclusion

TextInsight may simplifies early-stage analysis and reduces time/cost constraints, providing researchers with an accessible and efficient start to qualitative analysis. However, it must be integrated thoughtfully into the deep and rich process of qualitative inquiry, keeping in mind the importance of the researcher within qualitative data collection and analysis.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE EVOLUTION OF SURGICAL EDUCATION THROUGH SIMULATION: A GLOBAL BIBLIOMETRIC REVIEW (2019-2024)

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Background and Aims
Simulation has become cornerstone of modern surgical education, offering a safe and controlled environment for development of technical and non-technical skills. Rapid advancement of virtual reality, haptics, and artificial intelligence has expanded its scope across surgical subspecialties. This study aims to explore global research trends, influential contributors, and emerging themes in simulation-based surgical education from 2019 to 2024 using bibliometric methods

Methods
Comprehensive search of Scopus database was conducted to identify English-language articles and reviews published between January 2019 and March 2024. Bibliometric indicators included annual publication volume, co-authorship networks, institutional and country contributions, citation analysis, and keyword co-occurrence. VOSviewer was used to generate visual maps for collaboration and thematic analysis

Results
Total of 2,609 publications were identified, showing steady increase over the study period. United States, United Kingdom, and Germany were leading contributors in terms of publication output and international collaboration. Key institutions included Orsi Academy (Belgium), Mayo Clinic (USA), and Imperial College London (UK). Prokar Dasgupta and Ahmed Ghazi were among the most influential authors based on network centrality and citations. Core themes included “simulation”, “virtual reality”, and “robotic surgery”, while emerging areas such as “artificial intelligence”, “ergonomics”, and “fracture simulation” gained prominence after 2022.

Conclusion
Field of simulation-based surgical education has experienced substantial growth, with increasing global collaboration and thematic diversification. Simulation is now recognised not only as a training tool but as a foundational component of surgical curricula. Continued innovation, standardisation of outcome metrics, and equitable access in low-resource settings remain key priorities for future research and policy.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

A NOVEL SIMULATION MODEL BASED ON RIND-ON PORK BELLY PORTIONS WITH NIPPLES FOR PRACTICING SUPERFICIAL MASS RESECTION

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Background and Aims
Superficial mass resection is a common surgical procedure which surgery residents are required to master. For most surgery residents, the first experience of superficial mass resection case was performed on human subject under supervision of the senior surgeons, since it is difficult to reproduce similar practice experience with high fidelity for this surgical procedure on a non-human subject. We aim to develop a simulation model with great cost-effectiveness and high fidelity for surgery residents to practice superficial mass resection.

Methods
To prepare the pork-based simulation model, rind-on pork belly portions were acquired from the male Large White pigs of at least one-year old with hair completely. The nipples were carefully reserved on the pork. The pork was then cut into square-shaped portions with a side length of 15 cm including a nipple located at the portion centre. Either the nipple alone or the combined parts consisting of the nipple and the corresponding mammary gland could be used as a surgical target for training of superficial mass resection. The trainees' performance was quantitatively rated according to our self-developed reference standard, and the competency level was simultaneously assessed using surgical DOPS.

Results
The pork-based simulation model, costing 15 Chinese Yuan (equivalent to 2.1 US dollars based on the exchange currency as of May 2025) was cheaper than the silica gel model purchased at the price of 150 Chinese Yuan (about 20.7 US dollars), but required a minor fee for refrigerator storage, suggesting feasibility and cost-effectiveness of the pork-based simulation model. A total of 56 trainees were tested for their competency performance of superficial mass resection on the pork-based simulation model. All the trainees were able to complete the simulated operation on the pork-based model in 15 minutes. The PGY-3 surgery residents had higher performance scores rated for their procedures which were completed in a shorter time interval, comparing to the PGY-1 and PGY-2 residents. Notably, the pork-based simulation model resulted in better fidelity, but did not increase operational difficulty, according to questionnaire survey from the trainees.

Conclusion
The simulation model based on rind-on pork belly portions with nipples, benefiting from its satisfying cost-effectiveness and high fidelity, is suitable for surgery residents to practice superficial mass resection.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

LEARNING ON DEMAND: A REVIEW OF SOCIAL MEDIA IN OPHTHALMIC SURGICAL EDUCATION

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Background and Aims
With the rise of on-demand digital learning, social media websites have emerged as a widely accessed, informal educational platform for surgical training across specialties, including ophthalmology. Despite their ubiquity and convenience, the content on these websites remains highly variable and largely unregulated. This review aims to evaluate the quality, reliability and educational value of surgical videos on social media that are used as supplementary tools for ophthalmic surgical education.

Methods
A scoping review was conducted using a systematic search across four databases (PubMed, Embase, Scopus, and the Education Resources Information Centre) to identify relevant articles published from inception to April 2025. Studies were included if they evaluated social media platforms in the context of ophthalmic surgical education for medical students, residents, or healthcare professionals. Only original peer-reviewed studies published in English were analysed.

Results
From 103 identified records, five studies met inclusion criteria after removing duplicates and screening abstracts. All studies evaluated surgical videos from YouTube, the world's largest video-sharing platform. The videos covered various ophthalmic procedures: cataract surgery (two studies), vitreoretinal surgery (two studies), and eyelid ptosis surgery (one study). Quality assessment metrics included both validated tools such as the DISCERN score, Journal of the American Medical Association (JAMA) benchmarks, Global Quality Score (GQS), and custom surgical competency scores.

The studies demonstrated YouTube's widespread use as an educational resource for ophthalmic trainees while revealing significant variability in content quality and reliability (mean DISCERN score ranging from 32.8 to 56.5 and mean GQS score ranging from 2.86 to 4). Videos uploaded by physicians and academic institutions scored higher across the quality metrics. Audio narration, longer duration, and higher resolution, correlated positively with educational value. However, the studies also noted the disconnect between video popularity and instructional quality, with some content demonstrating unsafe or suboptimal techniques despite high viewership. Three-dimensional video formats enhanced learning experience, particularly among residents. Methodological limitations included reviewer subjectivity and the lack of ophthalmology-specific evaluation tools.

Conclusion
Social media platforms like YouTube provide accessible and potentially valuable supplemental material for ophthalmic surgical training. However, greater curation, quality assurance, and integration into structured curricula are needed to maximise educational potential while maintaining standards. Future research should focus on developing validated guidelines for producing and evaluating video-based surgical content and creation of curated video libraries in ophthalmology.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

JUMPSTART TO THE WARDS: TRANSFORMING THE TRIPLE JUMP INTO A BRIDGE TO CLINICAL READINESS

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Background and Aims
The Triple Jump, traditionally an assessment tool for evaluating clinical competence in evidence-based medicine, was adapted in this study into an interactive teaching and learning strategy. The aim was to support medical students in bridging the gap between pre-clinical education and clinical practice, and to evaluate its effectiveness in preparing them for clinical rotations.

Methods
Fourth-year medical students were organised into small groups (4-5 students each) and participated in a three-phase adapted Triple Jump session: (a) history taking and physical examination, (b) problem identification and information-seeking, and (c) group discussion with feedback from peers and mentors. Students completed a 5-point Likert scale questionnaire immediately after the session, three months later (at the end of their surgical rotation), and nine months later (at the end of their paediatric rotation).

Results
A total of 49 students participated. Immediate post-session evaluations demonstrated high effectiveness in learning history taking and physical examination (mean 4.60±0.10), generating problem lists (mean 4.67±0.53), and developing evidence-based medicine (EBM) skills (mean 4.56±0.64). Students also reported feeling well-prepared for clinical rotations (mean 4.72±0.51). At three months, students continued to report the method helpful for history taking and physical exams (mean 4.31±0.71), data collection and analysis (mean 4.23±0.74), and applying EBM principles (mean 4.28 ± 0.72). Nine months later, they retained a strong recall of the Triple Jump process (mean 3.69±0.80), and still reported benefits in clinical skills (mean 4.00±0.79), data collection and analysis (mean 4.15±0.84), and EBM application (mean 4.10±0.85). Overall, the process remained valuable for clinical preparation (mean 4.15±0.81).

Conclusion
Repurposing the Triple Jump as a structured teaching strategy effectively promotes clinical reasoning, skill integration, and evidence-based practice. It facilitates a smoother transition from pre-clinical to clinical education. To maintain its impact, educators should consider reintroducing the method during each clinical rotation.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

FROM STIGMA TO SUPPORT: A STUDENT-LED MENTAL HEALTH PEER SUPPORT PROJECT AT THE UNIVERSITY OF MEDICINE AND PHARMACY AT HO CHI MINH CITY TO ADVANCE THE HAPPY SCHOOLS FRAMEWORK IN HIGHER EDUCATION

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Background and Aims
Mental health challenges are increasingly recognised as critical barriers to student success in health professions education, particularly intensified by high academic pressure, limited emotional support, and cultural stigma around mental illness. In response, the University of Medicine and Pharmacy at Ho Chi Minh City (UMP) launched a student-led Mental Health Peer Support Project in 2025, designed in alignment with UNESCO's Happy Schools Framework, which emphasizes learner well-being through four pillars: People, Process, Place, and Principles.

Methods
Phase one focused on capacity building. 33 students were recruited from across UMP, namely School of Medicine, School of Nursing and Medical Technology, School of Pharmacy, Faculty of Public Health, Faculty of Traditional Medicine, and Faculty of Dentistry, via volunteer register and interview. From March to December 2025, students have the 12-sessions training programme led by psychologists and psychiatrists on a monthly basic. The curriculum combined theoretical knowledge and experiential learning, covering mental health literacy, early identification of distress, empathic listening, holding space, asking supportive questions, Mental Health First Aid, Suicidal First Aid, embodiment practices, and self-care techniques. Supervised practice and peer reflection were integral components of the training process.

Phase two centred on student-led innovation. Participants proposed five peer-driven projects: (1) a digital mental health database to monitor student well-being; (2) short video clips to promote mental health literacy and self-care; (3) interactive educational activities; (4) a student-designed "Safe Space" to promote psychological safety on campus; and (5) a communications strategy to increase visibility and accessibility of support services. These projects are currently being implemented with faculty mentorship and professional supervision.

Results
Early outcomes from Phase one include students' self-report improvements in mental health knowledge, empathy, and support skills. Interview with students revealed increased confidence among peer supporters and greater willingness among students to seek help. Reflection dialogue and informal feedback highlighted a visible shift toward openness, peer connection, and reduced stigma.

This initiative meaningfully operationalises the Happy Schools Framework in a higher education setting as we observe the results of the four pillars:

- People: The peer support network fosters authentic connections, mutual care, and inclusion across diverse student groups.
- Process: The project embraces active, student-centred learning methods, co-creation, and values-based education.
- Place: The development of a Safe Space reflects efforts to create emotionally and physically supportive environments.
- Principles: Core values, namely empathy, respect, student voice, and psychological safety, are embedded across both training and project implementation.

Conclusion

By placing student agency at the heart of mental health promotion, this project contributes to a broader vision of a “Happy University”, where well-being, collaboration, and emotional learning are central to academic life. UMP’s model offers a replicable approach for medical and health science institutions across Vietnam and the Asia-Pacific region.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Friday 23 January 2026, 1.45pm

Hua Yue 2, Level 3

FREE COMMUNICATIONS 6

Enhancing Feedback Practice in Programmatic Assessment: A Workshop for Health Professions Education Teachers
Xian Liu, The Netherlands

The Influence of Using AI Chatbot on Empathy and Communication Skills in Medical Students
Chanon Kulthongkam, Thailand

Enhancing Clinical Decision-Making Capacities in General Practice Residents Through AI-Assisted Virtual Patient Training: A Mixed-Methods Study
Zhijie Xu, China

Anatomy Education in a Lower-Middle-Income Country: A Cross-Sectional Study on Medical Students' Perceptions of Modern Technologies
Boi Dung Ly, Vietnam

Artificial Intelligence Meets Competency: A Residency Programme's Journey to Smarter Entrustable Professional Activities Implementation
Julia Yu Xin Ng, Singapore

Integrating Climate Change into Medical Education: Preparing Physicians for a Global Health Crisis
Khai Hsin Wong, Malaysia

Vietnamese Faculty Perspectives on Cross-Cultural, Interprofessional Faculty Development in Health Professions Education
Quang Minh Ngo, Vietnam

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ENHANCING FEEDBACK PRACTICE IN PROGRAMMEMATIC ASSESSMENT: A WORKSHOP FOR HEALTH PROFESSIONS EDUCATION TEACHERS

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Background and Aims
Programmatic assessment (PA) has emerged as a promising approach in health professions education (HPE), emphasizing continuous assessment to support professional development. Although feedback is a core component of PA, its practical implementation remains challenging. For example, the integration of rich narrative feedback and the provision of longitudinal, forward-looking advice are often underemphasized. Therefore, this study designed and evaluated a professional development workshop to enhance HPE teachers' understanding and practice of feed-up, feedback, and feed forward. Grounded in the principles of authentic, collaborative, and reflective learning, the workshop used interactive discussions and real examples among colleagues within a shared curriculum context.

Methods
A mixed-methods approach was employed, including questionnaire data on 19 participants' perceptions and five focus group interviews to explore the impact of the design principles on learning and practice.

Results
Survey data showed participants rated the workshop positively in achieving its learning outcomes and applying the design principles (overall mean score of 4.00 out of 5). Thematic analysis of focus group data revealed three key themes: (1) Theories and practical tips stimulate teachers' awareness and motivation to practice, yet providing feed-up and feed forward in practice remains challenging. (2) Interactive small group discussions offer opportunities for exchanging ideas and practicing within a safe environment. (3) Using real feedback examples and talking to real colleagues from the same curriculum was helpful, although transfer to practice requires further training.

Conclusion
Quantitative and qualitative findings cohere and indicate that participants valued the workshop's design and learning outcomes, especially the interactive discussions in a safe environment. The workshop fostered practice-oriented and authentic exercise, though challenges remained in applying feed-up and feed forward. This study highlights the importance of aligning HPE teachers' professional development for both immediate practice and long-term growth. Establishing psychological safety is essential in teacher learning environments. Implications for future faculty development and feedback practice are discussed.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE INFLUENCE OF USING AI CHATBOT ON EMPATHY AND COMMUNICATION SKILLS IN MEDICAL STUDENTS

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Background and Aims
The integration of artificial intelligence (AI) in medical education has significantly enhanced students' access to knowledge and supported the development of self-directed learning. AI chatbots, in particular, have become popular tools among students for quick explanations, differential diagnoses, and academic writing support. However, concerns have emerged regarding their potential impact on essential interpersonal skills, particularly empathy and communication. These humanistic competencies are crucial for effective patient care and professional identity formation. As students increasingly rely on non-human sources of feedback and information, opportunities for human interaction and reflection may diminish. This study examines how AI chatbot usage affects empathy and communication skills in pre-clinical medical students.

Methods
A cross-sectional study was conducted among 196 pre-clinical medical students at a single academic institution. Participants were recruited voluntarily and completed a set of validated instruments. Empathy was measured using the Toronto Empathy Questionnaire, which evaluates emotional responsiveness and perspective-taking. Communication skills were assessed through a self-reported inventory that captures both verbal and non-verbal communication behaviours, such as active listening, clarity of expression, and confidence in interactions. AI chatbot usage was measured through a structured questionnaire that recorded frequency, duration, and the primary purposes of use (e.g., explanation, summarisation, clinical case reasoning). Demographic data was also collected to control for confounders, including gender, academic year, and prior clinical experience. Descriptive statistics summarised participant characteristics and usage patterns, while multiple linear regression analysis was used to examine the association between AI usage frequency and empathy and communication scores, adjusting for relevant covariates.

Results
Among the 196 participants, 73.1% reported using AI chatbots regularly for medical learning purposes. Most students used AI tools for reviewing complex topics, simulating patient cases, or drafting academic content. Regression analysis revealed a statistically significant inverse correlation between AI chatbot usage frequency and empathy scores ($r=-0.36$, $p=0.04$), as well as communication skills scores ($r=-0.42$, $p=0.02$). These findings indicate that higher levels of AI usage were associated with lower scores in both empathy and communication domains. This trend remained significant after adjusting for potential confounders, suggesting a meaningful relationship between technology reliance and reduced development of interpersonal competencies.

Conclusion
This study highlights a critical consideration for the evolving landscape of medical education. While AI chatbots offer undeniable benefits in terms of accessibility, efficiency, and knowledge reinforcement, their unchecked or excessive use may hinder the cultivation of empathy and communication skills attributes fundamental to clinical effectiveness and patient-centred care. Medical educators should carefully design AI-integrated curricula that preserve opportunities for authentic human interaction, collaborative learning, and reflective practice. Structured guidance on how and when to use AI tools could help students strike a balance between technological efficiency and interpersonal development. Future studies should explore longitudinal outcomes and qualitative perspectives to better understand how AI tools may influence the formation of clinical professionalism over time.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ENHANCING CLINICAL DECISION-MAKING CAPACITIES IN GENERAL PRACTICE RESIDENTS THROUGH AI-ASSISTED VIRTUAL PATIENT TRAINING: A MIXED-METHODS STUDY

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Background and Aims
Clinical decision-making is a core competency for general practice residents, yet traditional training methods often lack standardised, repeatable scenarios for skill development. AI-assisted virtual patient (VP) technology presents a promising solution, offering immersive, standardised, and repeatable learning experiences. However, current research lacks rigorous evaluation of long-term outcomes in the field of technology-enhanced training approaches among general practice residents. This study aimed to assess the effectiveness of an AI-assisted VP training programme in improving clinical decision-making skills among general practice residents and identify their perceived barriers.

Methods
A longitudinal mixed-methods study was conducted over one year with general practice residents in one teaching hospital in Hangzhou, China. 50 residents participated in pre- and post-training clinical decision-making assessments using Objective Structured Clinical Examination (OSCE) format, administered by a team of clinical faculties as examiners. The assessment comprised five components: theoretical knowledge, history-taking, physical examination, clinical reasoning, and medical record writing. The AI-assisted VP training programme was implemented throughout the study period, consisting of 24 VP simulation exercise, 12 clinical decision-making workshops, and six role-playing consultation simulation training. Eight focus group interviews were conducted with 46 residents using semi-structured interview guides. Quantitative data was analysed using paired t-tests, while qualitative data underwent thematic analysis. Mixed-methods integration was achieved through convergent parallel design, where quantitative and qualitative findings were compared and synthesised to provide comprehensive understanding of the training effectiveness and perceived barriers.

Results
The participating general practice residents (n=50) had a mean age of 27.4 years (range: 24-30), with 70% identifying as female. The cohort was evenly distributed across training levels. OSCE assessments revealed significant improvements in clinical reasoning (pre: 72.3±8.4 vs. post: 83.7±7.2, $p<0.001$) and history-taking skills (pre: 78.9±9.1 vs. post: 90.4±8.3, $p<0.01$) among the 50 residents. Theoretical knowledge, physical examination, and medical record writing showed modest improvement without reaching statistical significance. Focus group analysis revealed that AI-assisted VP training enhanced residents' confidence in patient communication, systematic clinical thinking, diagnostic reasoning abilities, and adaptability to diverse clinical scenarios. Participants valued the standardised learning environment and immediate feedback but reported initial technology adaptation challenges, including initial difficulty in adapting to the virtual patient system and concerns about its integration with real-world practice. The integration of qualitative and quantitative results confirmed that residents' improved scores were closely associated with the immersive and interactive nature of the AI-assisted VP training.

Conclusion
AI-assisted VP technology demonstrates effectiveness in enhancing specific clinical decision-making competencies among general practice residents. The mixed-methods approach provided robust evidence of both objective skill enhancement and subjective learning experiences. Future research should focus on developing more sophisticated AI algorithms for complex clinical scenarios, investigating long-term skill retention, and establishing optimal integration protocols with traditional clinical training. Educational practice should prioritise faculty development for technology integration, creation of specialty-specific virtual patient libraries, and development of competency-based assessment frameworks that leverage AI capabilities for personalised learning pathways.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ANATOMY EDUCATION IN A LOWER-MIDDLE-INCOME COUNTRY: A CROSS-SECTIONAL STUDY ON MEDICAL STUDENTS' PERCEPTIONS OF MODERN TECHNOLOGIES

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Background and Aims
Anatomy education is a crucial element of medical training. Traditional teaching methods frequently fall short of meeting the needs of 21st century students, especially in low- and middle-income countries (LMICs) where resource disparities are common. This study examines medical students' perceptions of modern educational technologies used in anatomy instruction at VinUniversity, Vietnam.

Methods
A cross-sectional study incorporating both qualitative and quantitative data were conducted. A specially designed questionnaire featuring a 5-point Likert scale and open-ended questions was administered to three cohorts of students enrolled in the Anatomy course at VinUniversity. Quantitative data was analysed using IBM SPSS Statistics version 25.0. Normality was assessed with the Shapiro-Wilk test, and non-parametric Mann-Whitney U and Kruskal-Wallis tests were applied where appropriate, with significance set at $p < 0.05$. Qualitative data was independently coded and thematically analysed by two researchers.

Results
Out of 144 invited students, 131 responded (91% response rate). The analysis revealed that innovative educational tools, particularly the 3D Simulation App (4.39±0.84) and plastinated cadavers (3.91±1.03), received high satisfaction ratings. Urban students and those from prestigious high schools rated these tools significantly higher ($p=0.045$). The virtual dissection table had mixed reviews (2.92±1.15), with better reception in later cohorts ($p=0.058$). Family income influenced perceptions, with higher income groups rating the 3D Simulation App ($p=0.006$) and the virtual dissection table ($p=0.039$) more favourably. Qualitative feedback highlighted the need for interactive tools, practical resources, clinical integration, better labelling, and language support.

Conclusion
The study demonstrates that innovative educational tools, such as the 3D Simulation App and platinated cadavers, are highly effective in enhancing learning outcomes in anatomy education for medical students in a lower-middle-income country. These tools received high satisfaction ratings, particularly among urban students and those from prestigious high schools. The findings suggest that broader application of these tools can be achieved through shared subscriptions and collaborative programmes, such as summer bootcamps, allowing multiple medical institutions to benefit from these advanced resources. This approach can optimise resource utilisation and improve the quality of anatomy education across various medical schools, particularly in resource-constrained settings.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ARTIFICIAL INTELLIGENCE MEETS COMPETENCY: A RESIDENCY PROGRAMMEME'S JOURNEY TO SMARTER ENTRUSTABLE PROFESSIONAL ACTIVITIES IMPLEMENTATION

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Background and Aims
The implementation of Competency-based Medical Education (CBME) and Entrustable Professional Activities (EPAs) in the Anaesthesiology residency programme has introduced a complex assessment system. There are 12 EPAs to be completed by residents with specific Workplace-Based Assessments (WBAs). The complexity has led to multiple challenges. Residents have difficulties navigating the system to complete the EPAs needed at each level of residency which can set them back in their training. Faculty members lack a framework to craft appropriate entrustment questions for objective evaluation. Our artificial intelligence (AI) chatbot thus aims to help streamline this assessment process while improving grading accuracy and consistency.

Methods
Using a subscription model of ChatGPT Plus, a customised chatbot was trained with specific prompts and instructions. Reference material such as the faculty's EPA guidebook and evaluation lists were uploaded as core knowledge for the Chatbot to access. The Chatbot was evaluated based on four-criteria accuracy of responses, utility of the bot, user experience from both residents and faculty and stress testing. Accuracy of responses was judged against the EPA Guidebook and graded from one to five depending on the number of correct statements. Utility and user experience were assessed by qualitative feedback from residents and faculty in the residency programme. Stress testing was conducted by querying the Chatbot with ambiguous questions with different phrasing to see if a consistent response was given; questions that the Chatbot was instructed not to answer were also queried to check if the bot operated within its specified limits and if the bot proceeded to redirect users to the appropriate channels. The responses were similarly graded from one to five.

Results
Evaluation of the bot showed highly graded responses of scores four to five in both accuracy and stress testing. In terms of utility and user experience, most respondents used the Chatbot as intended to assist in summarising EPA requirements and to search for specific information about EPAs. The Chatbot was also used to check EPA requirements at specific levels and to generate entrustment questions for practice and assessment. In terms of the bot meeting expectations and ease of use, from a lowest score of one to highest of four, responses ranged from three to four.

Conclusion
Our project highlights the feasibility of using a customised Large Language Model (LLM)-based Chatbot in streamlining the residency assessment process. It helps answers residents' questions on EPAs, generate suitable entrustment questions and improves consistency in grading. This reduces variability of assessment amongst the faculty and reduces workload. In future, chatbot analytics can help consolidate frequently asked questions and audits can be conducted on entrustment questions and feedback generated. These insights can be used to update programme resources and target faculty development efforts.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

INTEGRATING CLIMATE CHANGE INTO MEDICAL EDUCATION: PREPARING PHYSICIANS FOR A GLOBAL HEALTH CRISIS

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Background and Aims
The growing complexity of global health challenges-including pandemics, non-communicable diseases, and climate change-necessitates a transformation in medical education. Climate change, in particular, poses significant risks to both physical and mental health. Despite increasing global concern, its integration into medical curricula remains insufficient. This study aimed to assess medical students' knowledge, attitudes, and perceptions regarding the inclusion of climate change and health in medical education.

Methods
A self-administered online questionnaire was distributed to all enrolled medical students at Faculty of Medicine, Universiti Malaya. The instrument included three sections: (1) a knowledge assessment based on the World Health Organisation's Climate Change Fact Sheet; (2) attitudes; and (3) perceptions. Descriptive statistics were used, and chi-squared tests were applied for categorical comparisons with significance set at $p<0.05$. Six optional open-ended questions were also included.

Results
A total of 307 valid responses were analysed. Only 48.2% of students reported prior exposure to climate-health content. Nevertheless, knowledge scores were high, with a mean of 92.38% (range: 40-100). Prior to entering medical school, 13.6%, 3.9%, and 62.3% of students reported understanding the definition, causes, and impacts of climate change, respectively. Moreover, 56% could articulate specific health consequences, such as increased transmission of infectious diseases and the exacerbation of chronic conditions.

Students with prior exposure were significantly more inclined to continue learning about climate-health issues (33%) than those without (12%). While 93.5% acknowledged the health implications of climate change, only 34.2% expected formal instruction on the topic during medical training. First-year students demonstrated the highest level of interest (58.2%), indicating growing awareness among newer cohorts. However, 44.3% of students-particularly those in clinical years-rated the existing curriculum as inadequate.

The internet, including social media, news platforms, and online articles, emerged as the most influential source shaping students' perspectives on climate and health. Reported barriers to curricular integration included a perceived lack of student interest (56.5%) and an already saturated timetable (26.1%). The preferred method of integration was embedding content into existing lectures (41.9%), and students expressed the most interest in understanding climate change as a risk factor for disease (19.5%).

Conclusion
This study reveals that medical students possess high levels of climate-health knowledge and awareness, yet face a significant gap in formal education on the topic. While most students recognise its relevance to healthcare, few feel adequately prepared. Addressing this gap requires overcoming curricular constraints and enhancing student engagement. Integrating climate-health content into existing courses represents a practical and student-endorsed approach. These findings should guide strategic curriculum reforms to ensure that medical education remains responsive and relevant to the evolving health challenges posed by the climate crisis.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

VIETNAMESE FACULTY PERSPECTIVES ON CROSS-CULTURAL, INTERPROFESSIONAL FACULTY DEVELOPMENT IN HEALTH PROFESSIONS EDUCATION

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Background and Aims
Background: High-quality interprofessional faculty development is essential to meet the escalating demands for skilled educators who can navigate complex clinical learning environments. The World Health Organisation calls for faculty development models that dismantle professional silos and promote collaborative practice. While interprofessional care has demonstrated improved patient outcomes and reduced provider burnout, limited understanding exists on how these models adapt within diverse cultural contexts, particularly in low- and middle-income countries such as Vietnam.

Aims: To explore Vietnamese health professions faculty perceptions regarding factors facilitating and hindering their engagement in cross-cultural, interprofessional faculty development.

Methods
A qualitative study was conducted to explore the perspectives of Vietnamese nursing and physician educators who had participated in an interprofessional, international health professions education certificate programme involving faculty educators around the world. 10 faculty, including three nurses and seven physicians, participated in the study. Semi-structure interviews, conducted in English or Vietnamese based on participant preference, were audio-recorded, translated as needed, and transcribed. Data was analysed thematically using Braun and Clarke's approach and guided by the Cultural Historical Activity Theory (CHAT) theoretical framework to examine faculty experiences, interactions, and systemic issues within educational activities.

Results
Six themes emerged: (1) Teaching Transformation, (2) Cultural and Contextual Differences, (3) Interprofessional Experiences, (4) Personal Challenges, (5) Professional Growth, and (6) Course Feedback. Participants described a shift from traditional teaching methods to more active, competency-based approaches, which improved both instructional effectiveness and bedside interactions. Faculty particularly valued the interprofessional nature of the programme, which offered exposure to diverse perspectives, innovative teaching strategies, and opportunities for professional development. However, cultural mismatches, contextual differences, language barriers, and logistical challenges (e.g., time zone differences) posed significant obstacles. Adapting international educational models to fit the Vietnamese context emerged as a critical need.

Conclusion
Our study highlights how faculty development programmes stimulate transformative learning but also reveal systemic contradictions due to cultural, linguistic, and practical barriers. These insights and lesson learnt can inform the design of future interprofessional faculty development programmes for health professions educators globally.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Friday 23 January 2026, 1.45pm

Paris Hall & Rome Hall, Level 5

FREE COMMUNICATIONS 7

A Multifaceted Study on AI-Enabled Standardised Training for General Practice Residents: Perspectives of Residents, Preceptors, and Educational Managers
Lingyan Wu, China

Mapping Peer Networks in Interprofessional Digital Healthcare Education
Judice Koh, Singapore

Mitigating AI Hallucinations in Medical Education and in Clinical Context: A Review of Validated Detection and Correction Strategies
Akhila Rakshitha Wimalasundera, Sri Lanka

Expert Physicians Provide More Fluent, Flexible, and Expansive Management Scripts than Novice Doctors
Joyce Yap, Singapore

Developing and Validating A Competency Framework for Traditional Medicine Graduates at University of Medicine and Pharmacy at Ho Chi Minh City, Vietnam
Thi Thuy Ha Cao, Vietnam

Building Wellbeing and Resilience Through Curriculum: A Mixed Methods Evaluation
Ira Agrawal, Singapore

Mitigating Neurophobia with 'Spot the Lesion!': Understanding the Effects of Gamification in Neurology and Neuroscience Education
Tomasz Stanislaw Cecot, Hong Kong S.A.R

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

A MULTIFACETED STUDY ON AI-ENABLED STANDARDISED TRAINING FOR GENERAL PRACTICE RESIDENTS: PERSPECTIVES OF RESIDENTS, PRECEPTORS, AND EDUCATIONAL MANAGERS

Wu L

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Background and Aims
The rapid advancement of artificial intelligence (AI) technology has introduced revolutionary opportunities to the field of medical education. In General Practice(GP) residency training, the potential of AI is gradually being explored and recognised. However, there remains a gap in comprehensive and in-depth research regarding the current application status, effectiveness, and acceptance of AI among different stakeholders, including residents, preceptors, and educational managers. This study aims to fill this gap by exploring the perspectives of these key groups on AI-enabled training, identifying its strengths and challenges, and providing actionable strategies to enhance the quality of standardised training for GP residents.

Methods
This study was conducted across over 30 GP residency training bases nationwide, covering diverse regions including the eastern, central, and western areas, with some participants from primary care settings. The study participants included GP residents, preceptors, and educational managers to ensure the diversity and representativeness of the results. The study adopted a mixed-methods research design, combining questionnaires and semi-structured interviews. The questionnaire survey collected quantitative data through structured questions to understand the primary views and attitudes of different roles towards AI-enabled training. The semi-structured interviews, based on interview guides, explored their specific views and experiences in-depth to collect qualitative data. The interview guides were designed separately for preceptors and educational managers, covering the application experience, effectiveness, strengths and challenges, future development directions, and suggestions for promotion and application of AI in GP residency training. Data analysis combined quantitative statistics and qualitative thematic analysis to comprehensively reveal the multifaceted characteristics of AI-enabled training.

Results
Preliminary results show that AI-enabled training for GP residents has significant advantages in improving learning efficiency and personalised learning experiences. However, it also faces challenges in technology acceptance, data privacy, and resource allocation. Different stakeholders-residents, preceptors, and educational managers-have varying expectations and obstacles in applying AI, but all recognise its potential value in GP residency training. Preceptors generally believe that AI performs well in optimising the presentation of teaching content and enhancing residents' participation, but also face technical issues and ethical challenges. Educational managers are more concerned with the deployment of AI-enabled training, the support measures required, its implementation effectiveness, and the difficulties encountered. They believe that balancing traditional teaching methods with AI technology is crucial.

Conclusion
The application of AI in GP residency training holds broad prospects, but it needs to be optimised in response to the needs and challenges of different stakeholders. This study, through a multifaceted analysis, reveals the strengths and limitations of AI in GP residency training and emphasizes the importance of cross-role cooperation and cultural adaptability in technology promotion. Future research should further explore the innovative applications of AI technology to improve training quality and build a strong general practitioner workforce. Meanwhile, the results of this study provide important references for reformers in medical education, helping to develop more targeted and effective training strategies and technical application plans to better address the practical issues in GP residency training and promote the modernisation of medical education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

MAPPING PEER NETWORKS IN INTERPROFESSIONAL DIGITAL HEALTHCARE EDUCATION

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Background and Aims

A core objective of Interprofessional education (IPE) is to cultivate collaborative behaviour among students through activities fostering teamwork and shared responsibilities (Cox M et al., 2016). In healthcare, this mirrors the real-world scenario where effective collaboration leads to improved patient care and outcome. The structure and interconnectivity of the team interactions are paramount in evaluating the extent of collaborations and can serve as a tool for uncovering implicit social behaviour among students impacting effective collaboration.

A graph is a mathematical model of relationships in which objects are nodes and their pairwise connections are edges. Graph theory provides tools to measure and reason about the structure of the graph model (network) and had been used in prior studies to correlate students' network positions to peer selection, engagement and academic outcomes (Vignery and Laurier, 2020; Williams et al., 2019).

In this study, we applied a graph-theoretic framework to peer-review data from a large-cohort interprofessional course in Digital Healthcare to (1) characterise collaborative behaviour at multiple levels, across faculties, project teams and individual students; and (2) explore utility of graph-based metrics as predictive indicators of collaboration quality and equity.

Methods

Peer-review evaluations were collected from ~700 students across Medicine, Dentistry, Pharmacy and Nursing enrolled in a 10-weeks common-curriculum Digital Healthcare course. The students confidentially assessed group project teammates across four behaviour themes–participation, cooperation, timeliness and overall contribution.

Leveraging on the peer review data, we constructed a directed, weighted network comprises of 6302 edges and 699 nodes, in which nodes represent entities such as students and affiliated faculties, and edges encode relationships such as faculty enrolment and peer associations, with weights capturing peer-assigned contribution scores within the project groups. Collaborative behaviour was assessed at three analytic levels - faculty, project teams, and individual using key network metrics including in- and out-strength, Barrat's weighted local clustering coefficient, and faculty reciprocity and assortative measures to capture patterns of homophily.

Results

Overall peer scores were high (range 1-5, mean=4.5), suggesting broadly positive team experiences. However, network measures revealed notable asymmetry between Givers and Recipients across the faculties, suggesting unbalanced interprofessional relationships. Additionally, variability in the assessment standards was observed. For instance, Medical students contributed more conservatively to projects but are generous graders of their peers while Pharmacy students are generally stricter in their gradings.

Based on the peer reviewed "level of cooperation" scores, we also computed each student's weighted local clustering coefficient as an indicator for collaborative engagement. The cohort exhibited heterogeneous degree of faculty-level collaborations (range 0-1, mean=0.4), with students from Nursing and Pharmacy demonstrating relatively higher clustering scores with low intra-group variability. Collectively, the analysis reveals challenges in ensuring equitable contributions in interprofessional group projects.

Conclusion

The study demonstrated how peer-review data can be repurposed at scale to map interprofessional collaboration patterns. Graph-based metrics were used to detect faculty-level disparities and unravel local collaborative communities. Longitudinal monitoring of these indicators can enable educators to

calibrate peer-assessment rubrics, and identify low-connected and unevenly rated students and groups, thus providing early predictive insights into effectiveness of IPE.

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MEDICAL AND HEALTH PROFESSIONS EDUCATION

MITIGATING AI HALLUCINATIONS IN MEDICAL EDUCATION AND IN CLINICAL CONTEXT: A REVIEW OF VALIDATED DETECTION AND CORRECTION STRATEGIES

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Background and Aims
The integration of generative artificial intelligence (AI) and large language models (LLMs) into medical and health education has the potential to revolutionise teaching, assessment, and clinical decision support. A critical barrier to their safe adoption is the phenomenon of AI "hallucinations" – instances where LLMs generate false, misleading, or factually incorrect information with high confidence. In the context of medical education, such errors can undermine learner trust, propagate misinformation, and potentially compromise patient safety if unchecked. Despite the rapid evolution of LLMs, the field lacks a comprehensive synthesis of validated methods for detecting and mitigating hallucinations, particularly as these models are increasingly integrated into educational and clinical workflows. This review addresses this gap by systematically evaluating current strategies for hallucination detection and correction in large language models (LLMs) used for medical and health education.

Methods
A scoping review was conducted per the PRISMA scoping review guidelines. Peer-reviewed articles published between 2022 and 2025 were identified through searches in PubMed and IEEE Xplore, using keywords related to "AI", "LLMs", "hallucination", "detection", "correction", and "medical education". Two reviewers independently screened titles and abstracts, with disagreements resolved through discussion. After applying inclusion and exclusion criteria, 12 studies were selected for data extraction. Key data fields included study design, healthcare domain, type of AI model, type of hallucination, detection and correction methods, validation metrics, context of application, and reported limitations. Data was extracted into a structured spreadsheet and analysed thematically.

Results
The review revealed a rapidly growing but heterogeneous body of research. Most studies focused on the use of LLMs (e.g., GPT-4, Llama2) in domains such as medical education, clinical decision support, and biomedical information extraction. Hallucination types included textual fabrication, citation errors, and reasoning-related inaccuracies. Detection methods ranged from entropy-based uncertainty metrics and adversarial prompt testing to fact-checking benchmarks and human-in-the-loop expert review. Correction and mitigation strategies included retrieval-augmented generation (RAG), fine-tuning with domain-specific data, chain-of-thought prompting, and evolutionary algorithms (EvoLLMs). Human oversight, either through expert review or reinforcement learning from human feedback, was commonly cited as essential for high-stakes applications. Validation metrics reported across studies included accuracy, F1-score, hallucination reduction rates, and benchmark performance. Challenges consistently noted were the lack of standardised benchmarks, generalisability across languages and specialities, and the resource intensity of human validation.

Conclusion
This review demonstrates that while promising methods exist for detecting and mitigating LLM hallucinations in medical education, no single strategy is universally effective. Retrieval-augmented generation, prompt engineering, and human-in-the-loop review currently offer the most robust solutions; Each approach carries trade-offs in terms of scalability, cost, and domain specificity. The findings underscore the need for standardised evaluation frameworks, multi-institutional validation, and ongoing monitoring to ensure safe deployment of LLMs in educational and clinical settings. Future research should focus on developing automated, context-aware correction pipelines and expanding benchmarks to reflect diverse medical contexts. A multidisciplinary approach-combining technical innovation, educational best practices, and regulatory oversight-is essential to harness the benefits of generative AI while safeguarding against its risks in medical education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EXPERT PHYSICIANS PROVIDE MORE FLUENT, FLEXIBLE, AND EXPANSIVE MANAGEMENT SCRIPTS THAN NOVICE DOCTORS

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Continuing and Community Care, Geriatric Medicine, Tan Tock Seng Hospital, Singapore

Background and Aims
Continuity of care (CoC), defined as how discrete healthcare episodes are experienced as coherent and patient-centred, is often not taught to junior doctors. This leads to poor CoC and adverse outcomes such as worse mortality rates, increased healthcare costs, and patient dissatisfaction. Lack of theoretical underpinnings complicates this educational problem. Management scripts, which are mental schemata to guide clinical management, could address this gap. By examining the management scripts of expert clinicians when dealing with CoC, we can potentially develop a framework for practice and teaching. In this study, we look at how the management scripts of junior doctors and expert clinicians differ when managing a chronic disease in a hospital setting.

Methods
We selected six junior doctors and six consultants from a community hospital in Singapore to participate in this study. They individually verbalised their clinical reasoning processes in a think-aloud protocol on a clinical vignette. The interviews were transcribed and coded deductively and inductively using thematic analysis. The themes generated from the junior doctors' and consultants' responses were compared. Data analysis was done using ATLAS.ti (version 25.0.1).

Results
On average, the consultants had 29.8 years and the junior doctors had 2.3 years of clinical experience. The management scripts of consultants were more fluent, flexible, and expansive. We constructed three main themes: (1) knowledge and foresight enable fluency, (2) realistic and empathetic consideration of patient factors enable flexibility, and (3) expansive boundaries that include other healthcare professionals and settings. There were two sub-themes for each theme. For the first theme, what enabled script fluency was highlighted by the sub-themes of "patient-tailored biomedical and process knowledge" and "prediction of illness trajectory". For the second theme, script flexibility was influenced by "realistic modifications based on patient factors" and "empathy for patient concerns". For the last theme, consultants considered "patient management as shared rather than segregated" and "transition to other healthcare settings" to make their scripts more expansive.

Conclusion
Differences in script attributes like fluency and flexibility between junior doctors and consultants have been described in the literature. Poorer fluency in junior doctors could be due to increased cognitive load from the dual-task of the think-aloud protocol. In contrast, consultants possess reproducible schemas for multiple clinical problems that reduce cognitive load and improve fluency. Adaptive expertise could also explain both the fluency and flexibility in the consultants' scripts. Consultants demonstrated the ability to work within an 'optimal adaptability corridor', where they balance the efficiency and innovative aspects of problem solving. Literature shows that faculty, compared to residents, adopt additional elements of continuity of care and initiative, which could explain their more expansive professional boundaries. These results can inform focus areas for teaching of CoC to junior doctors, namely: (1) Teach both disease-specific and process knowledge, (2) Expose junior doctors to varied patient presentations, and (3) Make explicit that patient ownership involves both providing and coordinating care.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

DEVELOPING AND VALIDATING A COMPETENCY FRAMEWORK FOR TRADITIONAL MEDICINE GRADUATES AT UNIVERSITY OF MEDICINE AND PHARMACY AT HO CHI MINH CITY, VIETNAM

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[1]Unit of Educational Quality Assurance, [2]Board of Deans of Traditional Medicine, [3]Unit of Academic Management, [4]Department of Traditional Internal Medicine, Faculty of Traditional Medicine, University of Medicine and Pharmacy at Ho Chi Minh City, Vietnam

Background and Aims
Assessing the professional competency of medical graduates is a crucial factor in ensuring the quality of training and meeting societal healthcare demands. In the field of Traditional Medicine in Vietnam, a scientifically validated and reliable assessment tool remains absent.

This study aimed to construct and validate a Professional competency scale for graduates of the Traditional Medicine Doctor Programme at the University of Medicine and Pharmacy at Ho Chi Minh City (UMP). The competency framework is intended to serve as a scientific basis for post-training assessment, educational quality assurance, and curriculum improvement.

Methods
The initial competency indicators were developed through document analysis and critical incident interviews with experts. A two-round Delphi survey was conducted to refine and reach consensus on the content. A cross-sectional survey was administered to all Traditional Medicine doctors who had graduated in the two most recent cohorts from UMP, with a total of 265 valid responses. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were performed to examine construct validity. Reliability and convergent validity were assessed using Cronbach's alpha, standardised factor loadings, and average variance extracted (AVE).

Results
The initial framework comprised 106 competencies across four domains. After two rounds of Delphi, consensus was achieved on 48 competencies grouped into four domains: professional practice, medical knowledge application, clinical care, and communication-collaboration. Following quantitative analysis of survey responses, the framework was refined to 32 competencies in three domains: professional practice, clinical care, and communication-collaboration. CFA indicated an acceptable model fit. The final tool demonstrated excellent internal consistency (Cronbach's alpha = 0.98), with all factor loadings > 0.5 and AVE values > 0.5.

Conclusion
The developed competency assessment framework for Traditional Medicine graduates is both valid and reliable. It can be effectively used to assess the professional performance of graduates upon programme completion, identify areas requiring improvement, and support curriculum development. This contributes to enhancing training quality and ensuring graduates are prepared for real-world medical practice.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

BUILDING WELLBEING AND RESILIENCE THROUGH CURRICULUM: A MIXED METHODS EVALUATION

Agrawal I, Luke N, Wong LW, Teckwani S, Yap C

Department of Physiology, Yong Loo Lin School of Medicine, National University of Singapore, National University Hospital, National University Health System (NUHS), Singapore

Background and Aims
Mental health challenges such as stress, anxiety, depression, and burnout are prevalent among undergraduate students, negatively affecting academic performance and overall well-being. Despite increased awareness of the importance of mental health literacy, structured interventions embedded within undergraduate curricula remain limited in Singapore. Recognising this gap, we at the National University of Singapore have launched a new 13-weeks elective course on 'Building Mental Wellbeing and Resilience' for undergraduates in the College of Humanities and Sciences.

The course employs Kolb's experiential learning pedagogy, combining theoretical foundations with practical application. Students are guided through reflective and experiential activities, including a "rewiring project" that encourages them to adopt and integrate evidence-based wellbeing interventions into their daily routines, and evaluate impact, thereby fostering real-world behavioural change. Course content spans neuroscience, psychology, and behavioural and implementation sciences to build foundational understanding of mental wellbeing, resilience, and self-care strategies. This study aims to evaluate the effectiveness of the elective in improving student mental wellbeing and emotional self-awareness, as well as to gather insights from student feedback to refine the course for future iterations.

Methods
This quasi-experimental study adopted a mixed-methods approach, combining quantitative psychometric assessments and qualitative feedback. Undergraduate students enrolled in the elective completed pre- and post-course measures using three validated scales: The Depression Anxiety Stress Scales-21 (DASS-21), the Satisfaction with Life Scale (SWLS), and the Emotional Self-Awareness Questionnaire (ESQ). These assessments were administered at the start and end of the semester. A control group of students from the same college who are not enrolled in the elective completed the same assessments during the same time frame. Quantitative data will be analysed using paired and independent samples t-tests to examine within-group and between-group changes in mental wellbeing and self-awareness. In addition to the psychometric data, students enrolled in the elective completed a course satisfaction survey consisting of Likert-type and open-ended questions. Qualitative data includes thematic analysis of open-ended responses, learning reflections from the rewiring project submissions and interviews to capture insights into the growth, self-awareness of coping strategies, perceived value, structure, and delivery of the course.

Results
Quantitative data has been collected from a sample size of 100 for each group, from the 2024/2025 academic cohort, and interviews are underway. Preliminary findings are expected prior to the conference and will include statistical comparisons of psychological outcomes between intervention and control groups, as well as emergent themes from student feedback and interviews regarding course impact and suggested enhancements.

Conclusion
This study represents a novel evaluation of a structured mental health education course embedded within the undergraduate curriculum in Singapore. By assessing both psychological outcomes and experiential learning processes, including the effectiveness of Kolb's pedagogy and the rewiring project, this research aims to inform the development of scalable, evidence-based curricular interventions to promote psychological wellbeing and resilience in higher education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

MITIGATING NEUROPHOBIA WITH 'SPOT THE LESION!': UNDERSTANDING THE EFFECTS OF GAMIFICATION IN NEUROLOGY AND NEUROSCIENCE EDUCATION

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Background and Aims
Neurophobia, the fear of neurology, had been a documented global challenge of medical education for at least two decades. This psychological phenomenon manifests as a lack of interest and confidence towards neural sciences and clinical neurology, impacting educational outcomes and patient care. To navigate the complexities of neurology, innovative education strategies must be employed. One proposed approach is gamification, the integration of game elements into non-gaming context. This study aimed to develop and implement a serious game in learning neurology and neuroscience, and to assess the effects of gamification in such curricula.

Methods
To tackle neurophobia, 'Spot the Lesion!', a serious game focused on teaching neuroanatomy and neuropathology was developed. The purpose of the game was to define the strengths and weaknesses of gamification as an education approach, which was beneficial in making recommendations for teaching tools in neuroscience-related curricula. The game uses an 'escape room' approach, where students solve clinical vignettes, progress through questions with immediate feedback via neuroanatomy diagrams, and collect codes to reach the final answer. Test sessions were conducted on Year two and Year three medical students (n=16). Pre-session and post-session knowledge tests were used to assess knowledge retention. Participants' perception of the game difficulty, engagement, and design were collected via post-session questionnaires. Qualitative study of students' experiences of the game was done through focus group interviews. Additionally, both quantitative and qualitative data was collected from behavioural analyses of video-recordings of the test sessions to assess the dynamics of students' engagement with the serious game.

Results
A significant improvement ($p<0.002$) in knowledge tests was observed from a mean score of 58.8,±18.9% to 73.8,±12.6%. Questionnaire results highlighted that most participants expressed their deep engagement in the game due to it being challenging in an enjoyable way, the relevance of content, and effective feedback. Interviews further revealed that gameplay elements helped consolidate knowledge from past learning activities and clarify complex concepts through the clear stepwise approach with immediate feedback. Behavioural analyses also highlighted a high level of focus and high frequency of group discussions as participants collaborated to complete the tasks. This pilot, while starting with a small number of students, showed that gamification could be a promising, effective measure against neurophobia by significantly boosting participants' confidence in neurology, leading to improved engagement and retention of knowledge. Implementation of an 'escape room-esque' objective allowed for immediate feedback and provided intrinsic motivation to the students, which encouraged active participation by fostering a supportive and cooperative learning environment. The physical components of the game also promoted explorative learning and hands-on engagement with the application of concepts and knowledge of neurology.

Conclusion
To conclude, gamification could be beneficial to lowering the perceived difficulty and cultivating interests in neurology among medical students. The journey of 'Spot the Lesion!' development provided insights in effective strategies to gamify teaching and highlighted that serious games could play a pivotal role in medical pedagogy. Further investigation is warranted to explore the long-term effects of gamification in medical sciences through phased rollout and expansion of the serious game.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Friday 23 January 2026, 3.30pm

Hua Yue 1, Level 3

FREE COMMUNICATIONS 8

Dancing Through Crisis: Fostering Harmony in Diversity in Health Professions Education
Veena Singaram, South Africa

The Jigsaw Technique in Learning Anatomy: A Qualitative Study of Medical Students' Perceptions
Punithalingam Youhasan, Sri Lanka

Motivation and Cognitive Engagement in Medical Students Using AI Chatbots: A Study Informed by Self-Determination Theory
Lik Wei Wong, Singapore

Reverse Classroom and Simulation Workshop Increase Confidence and Competency of Radiology Junior Residents in Whole Body Trauma CT Reporting
Hui Lin Wong, Singapore

The Psychological Impact of Standardised Training for Resident Physicians on Medical School Graduates: A Three-Year Longitudinal Study
Yifei Zhang, China

Developing Medical Student Research Capacity Through Interdepartmental Academic Collaboration: A Retrospective Five-Year Study
Piyaporn Sirijanchune, Thailand

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

DANCING THROUGH CRISIS: FOSTERING HARMONY IN DIVERSITY IN HEALTH PROFESSIONS EDUCATION

Singaram V

Health Professions Education, College of Health Sciences, University of Kwazulu-Natal, South Africa

Background and Aims
The COVID-19 pandemic placed significant emotional and professional strain on healthcare workers (HCWs), disrupting health professions education (HPE) and highlighting longstanding challenges in interprofessional collaboration, identity formation, and well-being. In South Africa, the #JerusalemaDanceChallenge–an arts-based social media trend–emerged as a powerful form of collective expression. While widely celebrated as a morale booster, its educational relevance has remained underexplored. This study investigates how participation in the dance challenge by South African HCWs contributed to well-being, interprofessional collaboration, and the development of core professional competencies. It aims to explore how such inclusive, culturally-rooted expressions can enrich HPE and foster harmony across diverse professional and social boundaries.

Methods
A qualitative research design was used to analyse publicly available online interviews and narrative reflections by South African HCWs who participated in the #JerusalemaDanceChallenge. A total of 55 data extracts were sourced from YouTube, news websites, and social media, and thematically analysed using Braun and Clarke's six-step framework. Thematic coding focused on lived experiences, language, metaphors, and reflections linked to well-being, teamwork, institutional identity, and professional competency. Investigator triangulation and Lincoln and Guba's criteria for trustworthiness ensured the rigour of the analysis.

Results
Three main themes emerged. First, HCW well-being was enhanced through joyful participation, stress relief, and emotional solidarity during the pandemic. Second, interprofessional collaboration was fostered as diverse cadres of HCWs-from students to senior staff-coordinated complex choreography, communicated across professional and social divides, and overcame logistical challenges. Third, professional competencies such as leadership, communication, contextual awareness, humaneness, and teamwork were organically developed through participation in the dance challenge. HCWs reported strengthened institutional identity, group cohesion, and a renewed sense of purpose. Notably, these embodied experiences challenged traditional hierarchies, cultural silos, and Eurocentric norms in medical education.

Conclusion
The #JerusalemaDanceChallenge served as more than a cultural moment–it catalysed meaningful learning and connection within the healthcare community. By offering a low-cost, inclusive, and participatory space, the challenge nurtured harmony through diversity and fostered vital professional competencies during a time of crisis. This study underscores the transformative potential of arts-based methods in HPE to build resilience, promote cultural inclusion, and strengthen collaboration in healthcare. Integrating such approaches into curricula can create empowering learning environments that validate diverse identities and encourage embodied, humanistic practice. Future research should further explore the long-term impact of participatory dance and other cultural expressions on professional development and interprofessional relationships in health professions education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE JIGSAW TECHNIQUE IN LEARNING ANATOMY: A QUALITATIVE STUDY OF MEDICAL STUDENTS' PERCEPTIONS

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Background and Aims
Contemporary medical education is shifting from traditional, teacher-centred anatomy instruction toward interactive, student-centred, and clinically integrated approaches. The Jigsaw Method–a structured cooperative learning strategy–aligns with this shift by fostering collective competence, which is vital for effective clinical practice. This study aimed to introduce the jigsaw model to medical students and explore its perceived effectiveness in teaching anatomy.

Methods
A phenomenological qualitative design was employed to explore the experiences of second-year medical students at the Faculty of Health-Care Sciences, Eastern University, Sri Lanka. Open-ended questions were used to elicit students' reflections on the effectiveness of jigsaw learning. Thematic analysis was conducted using NVivo software.

Results
Students reported generally favourable perceptions of the jigsaw method. Four major themes emerged: two described the positive impact of the approach-enhanced understanding through peer learning, and improved interpersonal and communication skills; the remaining themes addressed challenges in implementation and suggestions for refinement. Participants appreciated the structured collaboration and positive interdependence fostered by the method. Moreover, students viewed the jigsaw technique as well-aligned with student-centred learning principles.

Conclusion
The jigsaw method was perceived as an effective cooperative learning strategy that enhanced engagement, promoted active participation, and fostered teamwork in anatomy education. These findings support the integration of structured peer-based approaches into medical curricula to enrich students' learning experiences.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

MOTIVATION AND COGNITIVE ENGAGEMENT IN MEDICAL STUDENTS USING AI CHATBOTS: A STUDY INFORMED BY SELF-DETERMINATION THEORY

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Background and Aims
As Artificial Intelligence (AI) technology continues to advance, its impact on the education of medical and health professionals will be significant. While some argue that it may have negative implications for students' learning, educators should consider incorporating AI technology into their teaching methods to enhance students' learning experiences. Motivation has been shown to influence students' learning approaches, engagement levels, persistence in accomplishing goals, and thinking processes. Ryan and Deci's Self-Determination Theory (SDT) suggests that autonomous motivation, which can lead to greater engagement and persistence, is the preferred type of motivation for learning. The aim of this study is to investigate the potential of AI chatbots as a pedagogical tool for enhancing learning and motivation among undergraduate medical students.

Methods
First-year undergraduate medical students enrolled in the Cardiovascular System module during AY2023/2024 participated in this study. As part of a flipped classroom approach, students engaged in self-directed learning using eBooks, online lectures, and quizzes before attending in-person discussions. They were encouraged to submit questions through a designated Question and Answer (QandA) link and use ChatGPT to obtain answers, with teachers offering clarification as needed. To evaluate the AI chatbot's impact on motivation, we used the established SDT and Intrinsic Motivation Inventory (IMI) in a post-course anonymous survey questionnaire. The survey included both Likert-scale and open-ended items on the perceived strengths and limitations of ChatGPT. Additionally, 31 student-generated questions were analysed using Bloom's taxonomy to evaluate cognitive engagement.

Results
Out of the 57 students who completed the survey, 46 (80.7%) used ChatGPT during their studies. The overall need satisfaction score was 3.81 ± 0.89, with autonomy rated highest (4.07±0.77), followed by competence (4.00±0.78) and relatedness (3.35±1.11). Students reported high levels of interest (3.80±0.88) and perceived value (4.25±0.69) in using ChatGPT. Analysis of the student questions showed that 58.06% (18/31) fell under the "Apply" or "Analyse" categories of Bloom's taxonomy, while 41.94% (13/31) were at the "Understand" level. Students appreciated ChatGPT for providing fast, accessible, and easy-to-understand answers that supported comprehension and sparked further inquiry. However, concerns were raised regarding its accuracy, reliability, and lack of critical thinking. The findings suggest that ChatGPT helped students experience greater autonomy (freedom to ask questions) and competence (receiving clear explanations). High ratings of usefulness indicate an increase in task value. While ChatGPT supported surface to intermediate cognitive engagement, higher-order thinking appeared to require more instructor facilitation.

Conclusion
This study demonstrates that AI chatbots like ChatGPT can foster intrinsic motivation, encourage idea generation, and support cognitive engagement among medical students. When integrated thoughtfully, such tools can supplement traditional educational methods and enhance learning outcomes. Importantly, AI should not replace instructors but rather serve as part of a collaborative human-AI teaching model. While ChatGPT effectively promotes basic and moderate-level engagement, educators play a crucial role in guiding students toward deeper critical thinking. The study supports the relevance of SDT theory in digital learning environments, while also emphasizing the need for pedagogical scaffolding to optimise higher-level learning.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

REVERSE CLASSROOM AND SIMULATION WORKSHOP INCREASE CONFIDENCE AND COMPETENCY OF RADIOLOGY JUNIOR RESIDENTS IN WHOLE BODY TRAUMA CT REPORTING

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Background and Aims
Radiology junior residents are fearful of reporting whole body trauma CT due to their complexity, and external pressure from the trauma team. Furthermore, residents have limited and inhomogeneous exposure during their five-year residency programme.

Reverse classroom learning with curated online educational content and physical simulation workshop aimed to increase competency and confidence in trauma CT reporting for year two residents.

Methods
Structured bi-weekly educational content was disseminated for participants' self-learning learning for one month prior to the simulation workshop.

The physical workshop comprised of short lectures including the perspectives of a trauma surgeon and general approach to trauma CT by radiology faculty. Subsequently, residents underwent small group simulated verbal provisional reporting of six standardised trauma CT with immediate senior feedback.

Participants (n=17) completed pre-and post-workshop questionnaires and quizzes to gauge confidence level and competency respectively.

Results
Questionnaire responses were graded on a 5-point Likert scale with higher score denoting higher confidence. Pre-workshop, none of the participants rated their confidence level as four and five in reading trauma CT independently which improved to 53% post-workshop. Post workshop, 71% of residents rated their confidence level as four and five in providing a verbal report for emergent finding compared to 0% pre-workshop.

Over 80% of participants felt the course adequately prepared them to provide verbal reports and would recommend the course to future cohorts. An identical seven-question quiz was administered pre- and post-workshop, with an improvement from 33% to 75% of participants achieving a final score of four and above.

A reverse classroom learning supported by curated online resources was reinforced during the physical simulation workshop. Providing the educational resources in a controlled fashion allowed participants to pace their self-directed learning and minimise information overload. Multidisciplinary aspect of trauma management was also highlighted by inclusion of a trauma surgeon who contextualise the clinical significance of radiological findings. This also boosts inter-specialty collaboration and collegiality.

Small group simulated verbal provisional reporting with peer observation and review serves to mimic the trauma setting with external environmental pressure. Having senior residents facilitate the provisional read reduces participants' fear of errors and embarrassment, thus creating a safer learning environment. This also provides an avenue for senior residents to impart their personal tips and tricks.

Conclusion
A structured multidisciplinary teaching approach that encompasses both reverse classroom learning and simulated practice with immediate feedback is effective in increasing the competency and confidence of Radiology junior residents in whole body trauma CT reporting.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE PSYCHOLOGICAL IMPACT OF STANDARDISED TRAINING FOR RESIDENT PHYSICIANS ON MEDICAL SCHOOL GRADUATES: A THREE-YEAR LONGITUDINAL STUDY

[1]Zhang Y, [2]Zhan J

[1]Yantai Yuhuangding Hospital, China, [2]Department of Training, China

Background and Aims
Standardised Training for Resident Physicians (hereinafter referred to as “STRP”) is a major component of postgraduate continuing medical education in China. In 2025, the STRP system will be fully implemented in our country. In 2022, our hospital first admitted full-time medical students majoring in general practice. The general practice residents of the 2022 cohort are all recent medical graduates who have just entered society. The transition of resident physicians from medical students to clinical doctors generates a variety of psychological stress and changes. As an important reserve force for primary health care and a special medical practice group under the new medical reform, we want to explore the psychological changes that they will experience during the three-year STRP study, work, and life, and what kind of growth they will go through. This will enable us to timely adjust and improve our practices in STRP management, so that medical students can better and more quickly adapt to the change of identity

Methods
The study subjects were the general practice residents of the 2022 cohort. The Symptom Checklist-90 (SCL-90) and the Connor-Davidson Resilience Scale (CD-RISC) were used as the psychological assessment tools. The questionnaires were distributed in the form of WeChat QR codes. The surveys were conducted at four time points: when the residents first entered the hospital (September 2022), at the end of the first year of standardised training for resident physicians (September 2023), at the end of the second year (September 2024), and at the end of the third year (May 2025). This allowed us to promptly understand the current psychological status of the residents and the psychological problems they faced. Timely interventions and adjustments in the management of standardised training for resident physicians were made through various aspects, such as admission and base education, the chief mentor system, communication and feedback seminars, the establishment of WeChat groups, and the organization of competitions to provide a platform for display.

Results
A total of 88 questionnaires were distributed and all were returned with a response rate of 100%. The scores of the somatisation, interpersonal sensitivity, depression, and other factors of the resident physicians decreased year by year. The scores of the anxiety, hostility, phobia, paranoid ideation, and psychoticism factors increased at the end of the first year of standardised training for resident physicians and then decreased year by year. The score of the obsessive-compulsive factor showed an increasing trend year by year. In terms of psychological resilience, the toughness and strength of the resident physicians increased year by year. The optimism score decreased at the third survey and increased at the fourth survey, showing an overall upward trend. The first year of standardised training for resident physicians is a key period for the identity transformation of resident physicians. The hospital-base-department have taken the following main management measures: WeChat groups, the president giving the first admission education class, base education, communication meetings, mentor-student mutual selection meetings, and strengthening hospital-level theoretical and skill training.

Conclusion
After three years of standardised training for resident physicians, the psychological changes of resident physicians are significant, and their psychological resilience has been significantly improved. While their stress resistance has increased, their mental health level has also improved significantly. However, there are still some psychological problems, among which obsessive-compulsive symptoms are the most obvious. Effective measures should be taken in the management of standardised training for resident physicians to further improve the psychological status of resident physicians.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

DEVELOPING MEDICAL STUDENT RESEARCH CAPACITY THROUGH INTERDEPARTMENTAL ACADEMIC COLLABORATION: A RETROSPECTIVE FIVE-YEAR STUDY

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Internal Medicine, Medical Education Centre, Chiangrai Prachanukroh Hospital, Thailand

Background and Aims
Introduction: Research engagement during medical school is a key component of clinical education, promoting academic development, evidence-based thinking, and collaboration. At Chiangrai Prachanukroh Hospital, an affiliated teaching hospital of Chiang Mai University, fourth-year medical students conducted research under supervision of clinical faculty across various specialties from academic years 2020 to 2025. This model emphasized multidisciplinary cooperation between students and faculty.

Objective: To evaluate the structure, process, and outcomes of medical student research conducted in collaboration with multidisciplinary faculty over a five-year period, and to assess its educational impact on both students and faculty members.

Methods
A descriptive retrospective review was performed, involving 240 medical students and clinical supervisors from 12 departments. Research teams were formed in year three, with students selecting topics and advisors. Faculty mentors supervised four to six students per research project. Research fields included Internal Medicine (12 projects), Paediatrics (10), Surgery (8), Obstetrics and Gynaecology (8), Radiology (4), Rehabilitation (3), ENT (3), Orthopaedics (2), Psychiatry (2), Emergency Medicine (2), Ophthalmology (2), and Family Medicine (1). Support was provided by academic officers for coordination, ethics approval, data collection, statistical analysis, manuscript writing, and journal submission. Internal presentations and competitions were also held annually.

Results
Results:
Fifty research projects were completed, with 10 awarded at university-level competitions. Collaboration between departments allowed students to gain diverse clinical and academic perspectives. Faculty from different specialties contributed not only to supervision but also to exchanging knowledge among themselves, fostering an environment of shared academic growth. Evaluation data showed a 100% course completion rate, with 72% of the projects rated as “outstanding”. Satisfaction from both students and faculty was high. The publications were submitted to the Chiangrai Medical Journal.

Conclusion
Multidisciplinary collaboration between clinical faculty and medical students has proven highly effective in supporting research-based learning. This model enhances the quality of student research, fosters faculty development, and builds a strong foundation for academic inquiry. Continued support through structured mentorship and institutional coordination is essential for sustaining and expanding the impact of undergraduate medical research programmes in medical education.

Friday 23 January 2026, 3.30pm

Hua Yue 2, Level 3

FREE COMMUNICATIONS 9

The Study of Learning Outcome of Atherosclerotic Cardiovascular Disease (ASCVD) Prevention by Card Game Added on Interactive Lecture and Group Activity
Narongchai Wattanawongwon, Thailand

The Complex Interplay of Personal and External Factors in Medical Students' Specialty Decision-Making: A Qualitative Study
Trang Dang, Vietnam

The Asia-Pacific Academy: An Initiative of Collaborative and Inclusive Medical Education in a Diverse Region
Sharif Mohammed Sadat, Bangladesh

Predicting Medical Students' Clinical Empathy Development: A Longitudinal Study Using Machine Learning Analysis and Cluster Analysis
Haichun Zhou, China

Addressing the Hidden Curriculum: Lessons Learned from Implementing a Longitudinal Programme
Evaleen Tan, Singapore

Exploring Practices of Research Among Undergraduate Medical Students in Malaysia: A National, Multi-Institutional, Mixed-Methods Cross-Sectional Study
Chiong Kian Tiong, Malaysia

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE STUDY OF LEARNING OUTCOME OF ATHEROSCLEROTIC CARDIOVASCULAR DISEASE (ASCVD) PREVENTION BY CARD GAME ADDED ON INTERACTIVE LECTURE AND GROUP ACTIVITY

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Preventive and Social Medicine, Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand

Background and Aims
Atherosclerotic cardiovascular disease (ASCVD) is a condition of which general practitioners must diagnose and manage per the 2024 Thai Medical Council standards requirement. However, medical students found that the ASCVD prevention course was content-heavy and disengaging. To address this, the ASCVD Prevention Card Game was created as an interactive educational tool to enhance engagement and knowledge retention. This study evaluated its learning outcomes and student satisfaction when integrated alongside lectures and group activities.

Methods
This quasi-experimental study compared the learning outcomes of the ASCVD Prevention Card Game, integrated into the 2024 ASCVD prevention course, with the 2023 course prior to its integration, among fourth-year medical students at the Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand. The ASCVD Prevention Card Game is a multiplayer, turn-based game designed for two to six players. In 2023, the ASCVD prevention course comprised 18 hours of instruction, including interactive lectures, readiness assurance tests (RAT), outpatient teaching, and case-based learning. In 2024, the course was condensed to 16 hours with the integration of the ASCVD Prevention Card Game, while maintaining core content. Pre- and post-tests were administered to evaluate knowledge gains attributable to the ASCVD Prevention Card Game. Baseline student knowledge was assessed using the individual RAT (iRAT) and pre-test. Learning outcomes were evaluated by comparing post-test scores with pre-test scores and summative assessments across academic years by standard assessment. To minimise bias, summative exams from both cohorts were sampled randomly and re-evaluated by blinded assessor using standardised grading criteria. Student satisfaction was assessed using a 5-point Likert scale questionnaire and open-ended questions.

Results
The cohorts comprised of 286 and 248 students for 2023 and 2024 academic years, respectively. The mean iRAT score for 2024 cohort was 4.34±1.91(maximum score: 8), which was significantly lower than the 2023 score of 6.07±1.43 ($p<0.01$). For 211 students in the 2024 cohort who completed both pre- and post-tests, the mean pre-test score was 7.51±1.84 (maximum score: 10), which significantly increased to 8.51±1.64 ($p<0.01$) after participating in the ASCVD Prevention Card Game. Summative exam scores showed no significant difference between academic years: 81.67±10.34 (maximum score: 100) in 2023 compared to 81.47±8.70 in 2024 ($p=0.28$). Similarly, blinded re-evaluation of randomly selected summative exams showed similar result: 77.15±11.47 in 2023 compared to 78.79±10.31 in 2024($p=0.37$). Most students strongly agreed that the ASCVD Prevention Card Game was engaging, enjoyable, appropriately designed, and effective in enhancing learning, as indicated by a mean overall satisfaction score of 4.70. Open-ended responses further supported these findings, with students highlighting the game's role in promoting learning, increasing engagement and enjoyment.

Conclusion
The ASCVD Prevention Card Game appeared to enhance student engagement, enjoyment, and immediate learning outcomes among fourth-year medical students. Significant improvements in post-test scores support its potential as an effective interactive educational tool. Although summative scores were comparable to those of the previous year, the game helped sustain learning outcomes despite reduced instructional time and lower baseline knowledge. These findings support the integration of game-based learning in health professions education. Further research is warranted to evaluate its long-term effectiveness and applicability in clinical practice.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE COMPLEX INTERPLAY OF PERSONAL AND EXTERNAL FACTORS IN MEDICAL STUDENTS' SPECIALTY DECISION-MAKING: A QUALITATIVE STUDY

***Dang T*, Nguyen Q, Nguyen M, Bui N, Nguyen L, Ngo M**

Medical Doctor Programme, College of Health Sciences, VinUniversity, Vietnam

Background and Aims
Medical students' specialty decisions are shaped by a complex interaction of personal characteristics, academic experiences, social influences, and broader contextual factors. In lower-middle-income countries, where Western medical curricula are adapted to local educational and cultural contexts, little is known about how students make sense of these influences in shaping their future professional roles. This study aimed to explore how students interpret and construct their specialty choices in a newly established hybrid medical curriculum in Vietnam.

Methods
This qualitative study used an interpretive phenomenological approach. Semi-structured interviews were conducted with 27 medical students across all four academic years at a Vietnamese medical school. Participants were selected through purposive sampling to ensure diverse academic backgrounds and training levels. Interviews were thematically analysed using an inductive framework to identify how students experienced and interpreted influences on their specialty decisions.

Results
Four interrelated themes emerged from the analysis. First, students described how personality traits shaped their emerging identity and influenced specialty preferences. Second, academic and extracurricular experiences, including clinical rotations, research, and volunteer work, were viewed as transformative encounters that clarified career direction. Third, students navigated financial hardship, family expectations, and academic pressure, often interpreting these constraints as factors in negotiating or compromising their career choices. Finally, the COVID-19 pandemic prompted moral reflection, with some students reaffirming frontline aspirations and others shifting toward specialties offering personal safety or opportunities for systemic impact.

Conclusion
Medical specialty choice is a reflective and identity-driven process shaped by personal dispositions, experiential learning, social pressures, and contextual disruptions. Rather than being solely determined by traits or external incentives, students engage in an evolving interpretation of who they are and what kind of doctor they wish to become. Medical education should incorporate reflective support systems to guide students through this complex process.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE ASIA-PACIFIC ACADEMY: AN INITIATIVE OF COLLABORATIVE AND INCLUSIVE MEDICAL EDUCATION IN A DIVERSE REGION

[1]Mohammed Sadat S, [2]Wachiradejkul W, [3]Devani J, [4]Halić Kordić K

International Federation of Medical Students' Associations (IFMSA), [1]Bangladesh, [2]Thailand, [3]India, [4]Croatia (Hrvatska)

Background and Aims
The Asia-Pacific Academy is a flagship initiative of the International Federation of Medical Students' Associations (IFMSA) in the Asia-Pacific region, launched in 2020. Held annually, this week-long educational programme is designed to empower medical students by fostering leadership, advocacy, and collaboration through dynamic, student-led learning experiences. The Academy is tailored to participants of all levels of expertise and facilitates mutual understanding on critical health topics, including Medical Education, Sexual and Reproductive Health and Rights (SRHR) including HIV and AIDS, Research Advocacy, and Global Health.

Through a diverse and inclusive curriculum, the Academy provides participants with comprehensive insights into IFMSA's advocacy work and policy processes. It equips them with the tools and competencies to translate acquired knowledge into meaningful, long-term initiatives within their local contexts. As such, it serves as a vital platform for strengthening regional collaboration and capacity-building in health professions education.

Methods
The Academy utilises a peer-to-peer, student-led educational approach, promoting participatory learning through interactive workshops, simulation exercises, group projects, and discussions. Each edition is co-designed by an international team of facilitators to ensure cultural sensitivity, thematic relevance, and accessibility. The content evolves annually based on current regional and global health priorities.

To assess its impact, a comprehensive monitoring and evaluation framework is implemented. Pre- and post-academy surveys measure changes in participants' knowledge, skills, and confidence in applying learned concepts. Additionally, qualitative data is collected via focus group discussions, written reflections, and open-ended evaluations to capture participant experiences and guide iterative improvements in the programme design.

Results
Between 2022 and 2024, the Asia-Pacific Academy engaged 772 participants from 15 countries in the region, supported by over 100 peer educators from around the globe. Quantitative assessments indicated an average 84.7% increase in knowledge across key global health domains. Moreover, 77.5% of participants reported improved confidence in planning, leading, and evaluating health-related initiatives within their NMOs and communities.

Participants consistently highlighted the Academy's "engaging", "inclusive", and "student-led" structure as key strengths. They appreciated the use of diverse facilitation techniques and the emphasis on cross-cultural collaboration. Many emphasized that the Academy not only enhanced their competencies but also built strong professional networks and fostered a sense of regional solidarity.

Conclusion
The Asia-Pacific Academy exemplifies the transformative potential of collaborative, student-led education in preparing future healthcare professionals to lead with empathy, inclusivity, and purpose. By promoting shared learning across borders, the initiative nurtures harmony in diversity and contributes to the development of a resilient, globally aware health workforce. The Academy's outcomes reflect the core values of the APMEC 2026 theme "Harmony in Diversity through Collaboration in Health Professions Education". It stands as a replicable model of how inclusive, regionally adapted education can catalyse leadership, advocacy, and unity in a diverse and interconnected world.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

PREDICTING MEDICAL STUDENTS' CLINICAL EMPATHY DEVELOPMENT: A LONGITUDINAL STUDY USING MACHINE LEARNING ANALYSIS AND CLUSTER ANALYSIS

[1]Zhou H, [2]Wu H, [3]Shen Z

[1]Medical Education, [3]Department of Educational Economics and Administration, Graduate School of Education, [2]National Centre for Health Professions Education Development, Peking University, China

Background and Aims
Clinical empathy is a core competency for medical students. This study aimed to examine the longitudinal predictive effects of simulation-based learning and clinical clerkships on clinical empathy using machine learning algorithms.

Methods
Data was drawn from the 2021–2022 China Medical Student Survey, including 6,683 medical students (Age: 25.45 ± 0.85; 58.69% female) from 37 medical schools nationwide. Clinical empathy levels were predicted using multiple methods: ordinary least squares (OLS) regression, random forest, XGBoost, support vector machines (SVM), decision tree, ridge regression, Lasso regression, k-nearest neighbours (KNN), and Super Learner. In addition, cluster analysis was conducted to identify patterns of empathy development among medical students.

Results
Final-year students had significantly higher clinical empathy scores (M=4.06, SD=0.69) compared to fourth-year students (M=3.93, SD=0.75), t=–12.98, 95% CI=[–0.15, –0.11]. Compared to OLS regression, Super Learner, random forest, Lasso, and ridge regression showed better predictive performance (R^2=0.36 ~ 0.38). Key predictors included the completion of clinical clerkship tasks, interaction with peers, instructors, and staff during clerkships, and emotional motivation triggered by patients. Cluster analysis identified three distinct empathy development profiles: (1) a "peer-interaction-oriented" type, (2) an "ethics-awareness-oriented" type characterised by pre-clinical empathy and ethical responsibility, and (3) an "interpersonal and emotional-motivation-oriented" type emphasizing patient-driven motivation and broad social interaction.

Conclusion
Machine learning models performed well in predicting clinical empathy, with Super Learner showing particular advantages. The findings highlight the crucial role of clinical clerkships and reveal diverse pathways in the development of empathy during undergraduate medical education, offering important insights for medical education policy and practice.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ADDRESSING THE HIDDEN CURRICULUM: LESSONS LEARNED FROM IMPLEMENTING A LONGITUDINAL PROGRAMMEME

Tan E

Office for Students, Yong Loo Lin School of Medicine, National University of Singapore, Singapore

Background and Aims
It has long been recognised that the hidden curriculum has a significant impact on medical students' professionalism, particularly by socialising students into the norms and interpersonal dynamics in healthcare institutions. Interventions for inculcating professionalism and addressing the hidden curriculum should be tailored for each school's unique environment; however, the data on such curricular interventions in non-Western cultural contexts is scarce. To address this gap, we developed a longitudinal programme (EnRICH), with the goal of holistically fostering undergraduate medical students' professional identity formation, relational competence, and well-being.

Methods
Drawing from Systems Theory in organisational development, the EnRICH workshops first focus on intrapersonal awareness, identity and managing interpersonal relationships in preclinical years. With the formation of clinical groups and exposure to various aspects of the healthcare system, the focus shifts to group and team dynamics and navigating clinical practice and transitions. A key feature is the exploration of values, which spirals throughout the workshops. Drawing from ontological coaching and positive psychology, students are prompted to clarify and act in accordance with their own values as they develop into doctors. Teaching methods comprise a combination of didactic presentations, facilitated small group discussions, reflective exercises, and experiential activities such as roleplay. As part of preliminary rounds of action research to improve the workshop effectiveness, student feedback was collected through a five-to-seven-item questionnaire developed by the programme committee at the end of each workshop. Quantitative items were measured with a 5-point Likert scale. Qualitative comments were coded for themes.

Results
A total of 1764 responses were collected across two academic years. Students perceived the workshops as 'enriching' (83.86% in AY2023, n=923) and a 'meaningful use of [their] time' (77.65% in AY2024, n=841). Across both AYs, 57.09% felt that the workshop had prepared them for their medical training and role as a future doctor (n=1594).

Some common themes emerged regarding the most impactful workshop aspects. Firstly, workshop facilitators played a critical role in providing perspectives from practising doctors and serving as positive role models for students. Secondly, small group discussions enabled students to learn from various perspectives and build community with peers. Thirdly, students appreciated exploring values with their peers, both to support their self-awareness and better navigate interpersonal dynamics and conflicts. Finally, students could better understand the frameworks taught when they were simple, kept to a maximum of two per workshop, contextualised by facilitators, and/or reinforced with hands-on practice. However, some students indicated a preference for more 'clinically relevant' content, which could point to the need to further explicate the link between the programme and clinical practice.

Conclusion
Interventions to develop professional identity and address the hidden curriculum should integrate skill-based teaching, deep intrapersonal reflection, and significant interactive and experiential components. Our next steps for improving this course would include involving students in designing their own learning, increasing the perceived relevance of the course by improving student engagement, and evaluating its longer term impact with more rigorous measures. We hope that our experience in developing this course would guide other Asian medical schools seeking to implement similar curricula.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EXPLORING PRACTICES OF RESEARCH AMONG UNDERGRADUATE MEDICAL STUDENTS IN MALAYSIA: A NATIONAL, MULTI-INSTITUTIONAL, MIXED-METHODS CROSS-SECTIONAL STUDY

***[1]Tiong CK*, [1]Tejpal Singh PS, [1]Woo OTW, [1]Harrison E, [1]Foong CC, [2]Pallath V**

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Background and Aims
Medical research is essential for advancing clinical practice and improving outcomes. Early research exposure enhances medical students' critical thinking, academic performance, leadership skills, and collaboration abilities. It also fosters lifelong learning and facilitates their transition into competent physician roles. Despite increasing interest in research careers, undergraduate research involvement in Malaysia remains underexplored, with a limited and non-representative body of literature. This study aimed to assess research practices, perceived barriers, and motivating factors influencing research participation among Malaysian undergraduate medical students.

Methods
This study employed a self-administered, online questionnaire-based cross-sectional design. A 22-item questionnaire was developed following a pilot study and content validation, achieving excellent content validity indices (I-CVI = 1.00, S-CVI = 1.00). The questionnaire, prepared in English, comprised three sections: Section A (consent, one item), Section B (demographics, nine items), and Section C (research practices, twelve items), featuring multiple-choice and short-answer questions. The questionnaire was hosted on Google Forms and disseminated through a national, multi-centre online survey involving full-time Malaysian medical students enrolled in medical schools recognised by the Malaysian Medical Council (MMC) under the Second Schedule of the Medical Act 1971, excluding those in twinning programmes. A snowball sampling method was used. 10 medical students from various medical schools across Malaysia were recruited to assist in data collection. Quantitative data was analysed using descriptive statistics, while qualitative responses were examined through thematic analysis.

Results
A total of 621 complete responses were collected from students across 16 medical schools, with 318 (51.2%) from public universities and 303 (48.8%) from private universities. Of the respondents, 275 (44.3%) were in the pre-clinical stage, and 346 (55.7%) were in the clinical stage of their studies. A total of 261 (42.0%) students reported never having participated in a research project, and 378 (60.9%) had never attended any research methodology workshop or training. 498 (80.2%) students had no publications, while 103 (16.6%) had at least one publication as an author or co-author. A total of 381 (61.4%) and 371 (59.7%) students reported no experience with poster and oral presentations, respectively. Among those who participated, the most common types of research conducted were cross-sectional studies (202; 56.1%) and review articles (129; 35.8%). Students contributed to various stages of research projects, predominantly in literature review (291; 80.8%), proposal writing (259; 71.9%), data analysis (250; 69.4%), and data entry (216; 60.0%). Three themes emerged as barriers to research participation, which were identified as individual challenges, interpersonal and mentorship difficulties, and institutional limitations. Motivating factors included professional development and career advancement, a desire to contribute to scientific knowledge and public health, as well as the integration of research within the medical curriculum.

Conclusion
Although engagement in research among medical students is evident, greater efforts are essential to further increase their participation in research. Hence, it is crucial to address the identified barriers and enhance the motivating factors to cultivate a supportive research culture and nurture future physician-scientists who can drive advancements in the medical field.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Friday 23 January 2026, 3.30pm

Paris Hall & Rome Hall, Level 5

FREE COMMUNICATIONS 10

Reframing Clinical Education in Nursing: Qualitative Insights into Implementing the 4C/ID Model for EPA-Based Training
Chee Chew Yip, Singapore

The Design and Use of Clinical Interactive Worksheets in Medical and Health Sciences Teaching and Learning
Sheng Yan, Hong Kong S.A.R.

Proposing a Medical Student Feedback Literacy Framework Through Triangulation of Stakeholders' Perspectives
Chan Choong Foong, Malaysia

Proficiency Evaluation of Large Language Models in Medical Laboratory Technology Education: A Comparative Study Based on the Clear Framework
Junxun Li, China

Interprofessional Socialisation and Collaboration among First-Year Healthcare Undergraduates in Singapore: A Mixed-Methods Study
Lay Hoon Goh, Singapore

Effectiveness of Technology-Enhanced Training Program for Hypertension Management among Primary Healthcare Providers in Binh Duong, Vietnam
Trang Nguyen Thi Minh, Vietnam

Simulated Patients in Traditional Chinese Medicine Education: Evidence-Based Insights from a Meta-Analysis of Randomised Controlled Trials
Yunhui Chen, China

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

REFRAMING CLINICAL EDUCATION IN NURSING: QUALITATIVE INSIGHTS INTO IMPLEMENTING THE 4C/ID MODEL FOR EPA-BASED TRAINING

[1]Yip CC, [2]Aung TZ, [3]Ang JYJ, [4]Ong CS

[1]Education Development Office, [2]Nurse Administration Department, Nursing Faculty, [3]Ophthalmology and Visual Sciences Department, Optometry, [4]Education Development Office, Administration, Khoo Teck Puat Hospital, National Healthcare Group, Singapore

Background and Aims
Traditional nursing education often segments clinical skills into isolated components, limiting learners' ability to integrate and transfer knowledge effectively in dynamic ward environments. To address this, an EPA-based training blueprint was developed using the Four-Component Instructional Design (4C/ID) model to teach the Entrustable Professional Activity (EPA) "providing nursing care to a ward patient". This study explored how diploma-level nursing students experienced this cognitively aligned, whole-task instructional model to understand its impact on clinical reasoning, task fluency, and professional readiness.

Methods
Twenty nursing graduates who had completed their Pre-Registration Clinical Placement using the 4C/ID-designed EPA blueprint at a Singapore tertiary hospital were purposively sampled for this qualitative study. In-depth, semi-structured interviews were conducted to elicit insights into their learning experiences, challenges, and perceived outcomes. Transcripts were analysed inductively using thematic analysis in NVivo. Codes and themes were generated through constant comparison and collaborative review. Rigour was ensured through triangulation with training documentation, member checking, independent double coding, and regular debriefings among researchers. Reflexivity was maintained through an audit trail and positionality memos, recognising researchers' roles in the development and delivery of the intervention.

Results
Six themes were identified, five of which reached data saturation. (1) Scaffolded learning and cognitive load management: The blueprint's progressive complexity supported gradual skill acquisition without overwhelming learners. "Doing a few things at a time made learning clearer" (P18). (2) Integration of clinical reasoning and whole-task performance: Students reported improved ability to connect assessments, interventions, and communication in a coherent, ward-relevant workflow. "We are not just doing skills for the sake of doing them. We know the reason behind the care, how everything connects" (P16). (3) Authentic learning through reinforcement activities: Structured tools such as the Pharmaco quiz and behavioural simulations effectively bridged theory and practice. "The Pharmaco quiz really helped... I still use what I learned today" (P19). (4) Variability in preceptor engagement: Learning was affected by inconsistencies in how preceptors understood and applied the blueprint. "My CI wasn't sure how to guide us... it was confusing at first" (P18). (5) Documentation and usability challenges: The A3-format learning tool was seen as impractical in clinical settings. "The A3 paper was not very convenient to bring around... it wasn't easy to refer to" (P20). (6) Faculty familiarity and time constraints: Limited faculty orientation and compressed timelines impeded consistent implementation. "Sometimes the time was not enough to sit down and go through the whole A3 form... everything felt quite rushed" (P20).

Thematic insights revealed that scaffolded instruction, effective cognitive load management, authentic learning tasks and structured progression enabled learners to develop task fluency and clinical readiness.

Conclusion
This study affirms the value of the 4C/ID-based EPA blueprint in promoting integrated clinical reasoning, scaffolded progression, and cognitive alignment with workplace complexity. Learners described enhanced confidence, clarity, and readiness for independent practice. However, implementation fidelity was impacted by variability in preceptor preparation, documentation usability, and faculty training. Addressing these through digital tools and structured orientation can further enhance the blueprint's impact. These findings support the broader application of this curricular model in nursing profession.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE DESIGN AND USE OF CLINICAL INTERACTIVE WORKSHEETS IN MEDICAL AND HEALTH SCIENCES TEACHING AND LEARNING

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Background and Aims
Emphasis on clinical concepts and a systematic clinical approach to disease diagnosis, investigation, and management are of key importance in medical education. In this study, a series of online structured Clinical Interactive Worksheets (CIWs) were built based on real neurology cases. By including multiple components such as interactive diagrams and step-by-step guiding questions with immediate feedback, we hypothesized that CIWs allow self-assessment and self-learning. Its effectiveness in enhancing learning performance and conceptualization of a systematic clinical framework in medical or health sciences students was subsequently evaluated as the primary focus of this study.

Methods
The content development was a collaboration between medical students, clinical educators, and pedagogical experts. Students gathered case observations from clinical attachments and curated clinical vignettes, case questions and feedback. Clinical educators provided clinical teaching and content review. Pedagogical experts provided expertise in content delivery. Finally, a digital format of the CIWs was developed with relevant content integrated.

Testing was carried out in medical students from preclinical and clinical years. In quantitative analysis, pre- and post-course knowledge tests were performed to assess students' knowledge acquisition. The perception and motivation of participants were evaluated through a validated post-course online questionnaire based on Technology Acceptance Model (TAM) and Motivation Model (MM). Qualitative evaluation was performed subsequently through in-depth individual interviews which includes questions guided by prior responses from participants.

Results
A statistically significant improvement in knowledge acquisition upon completion of CIWs was observed from the pre- and post-course knowledge test ($P<0.005$). Further analysis identifies the most significant improvement was observed in the acquisition of practical knowledge such as clinical indications in procedures and interpretation of laboratory test parameters in disease diagnosis ($P<0.005$). Conversely, questions focused on factual core knowledge, which are highlighted in multiple learning activities, showed no significant difference in knowledge acquisition with or without CIWs ($P>0.05$). This suggests that students are not adequately focusing on the practical knowledge of clinical and laboratory procedures, which are essential for real-life clinical practice. The CIWs redirected students' attention to this procedural knowledge.

Greater usefulness of CIWs in enhancing one's learning performance and systematic clinical approach was observed in preclinical students. The percentage increase of mean indicating the improvement of knowledge acquisition in preclinical students before and after completion of CIWs is 66.7%, while that in clinical students is 26.7%. Perception questionnaire and interviews revealed that the different components of the worksheet such as clinical vignettes, interactive diagrams for exploratory learning of clinical investigations, questions and immediate comprehensive feedback, final summaries, and organisation of content in step-by-step manner contributed to building systematic clinical approaches. This supplements the preclinical curriculum which often lacks clinical exposure and effectively bridges preclinical and clinical curriculum.

Conclusion
CIWs are effective in outlining a systematic clinical approach and emphasizing knowledge or skills regarding actual clinical practice. With its usefulness in providing insights that has high clinical relevance, CIW can be implemented to narrow the gap between pre-clinical and clinical curriculum. Meanwhile, the structure and format of CIWs can be adapted to teaching and learning of varying health sciences topics.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

PROPOSING A MEDICAL STUDENT FEEDBACK LITERACY FRAMEWORK THROUGH TRIANGULATION OF STAKEHOLDERS' PERSPECTIVES

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Background and Aims
Feedback involves a process in which students evaluate information regarding their performance and incorporate it to enhance their performance. Feedback-literate students seek feedback, communicate, and utilise it to improve their performance. In the context of medical education, such students are more adept at seeking and appreciating feedback from various sources, including supervisors, colleagues, and patients, while prioritising patient safety. Hence, cultivating feedback-literate graduates is important to ensure that they stay open-minded and committed to self-improvement. To date, feedback literacy frameworks have concentrated on general contexts, and there is a need to propose a feedback literacy framework tailored to medical education. The present study aimed to investigate the characteristics associated with feedback literacy as defined by medical students, educators, and patients, and propose a framework indicating medical student feedback literacy.

Methods
An interview protocol was then developed. Semi-structured interviews were conducted with 38 medical students, 15 medical educators, and 11 patients from different healthcare institutions. The backgrounds of the informants were collected to enable rich descriptions for transferability. Transcripts were returned to interviewees for checking to enhance credibility. Thematic analysis was performed. Stakeholders' (interviewees') perspectives were triangulated to identify common patterns, and in line with this, triangulation enhances credibility. Codes were developed based on these patterns and then examined to reduce any overlap. Subsequently, the codes were organised into potential themes that were refined through an iterative process. Four rounds of review were conducted to avoid over-interpretation of the stakeholders' initial voices. The researchers' reflections and decision-making were documented in the form of an audit trail to promote dependability and confirmability.

Results
The thematic analysis produced 19 codes in seven themes that demonstrated the characteristics of medical student feedback literacy. For instance, the first theme lies in the foundations of feedback literacy, aiming at developing competencies for patient safety; the second theme is readiness for instant feedback received from different sources; the third theme focuses on engagement in the process of receiving and responding to feedback; the fourth theme highlights the analysis of feedback; the fifth theme relates to evaluation of the use and application of feedback; the sixth theme emphasises regulating emotions towards feedback; and the last theme promotes internalisation of the feedback to become competent medical practitioners. A framework in the form of graphics was drawn to present the themes and codes relating to the characteristics of medical student feedback literacy.

Conclusion
The framework reveals the characteristics of feedback literacy exclusive to medical education, including prioritisation of patient safety, reflective practices, and emotional regulation. Establishing clearly defined competencies through stakeholder consensus is fundamental to competency-based medical education. The characteristics of feedback literacy, as defined in this framework, can be integrated into the medical curriculum to produce feedback-literate medical graduates.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

PROFICIENCY EVALUATION OF LARGE LANGUAGE MODELS IN MEDICAL LABORATORY TECHNOLOGY EDUCATION: A COMPARATIVE STUDY BASED ON THE CLEAR FRAMEWORK

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Background and Aims
Large language models (LLMs) represented by ChatGPT have demonstrated remarkable performance in the assessment of medical examinations. Current research mostly focuses on the performance evaluation of foreign large language models in the field of clinical medicine, lacking the evaluation of Chinese large language models, as well as the knowledge evaluation of large language models in the subfield of medical laboratory testing. Our research question is: Do the LLMs have the potential to guide the study of medical laboratory technology? It is specifically decomposed into three sub-research questions: (1) Do mainstream LLMs possess relatively rich professional knowledge in medical laboratory science? (2) Are the answer analyses generated by mainstream LLMs of high quality? (3) How to improve the quality of content generated by LLMs?

Methods
A comprehensive evaluation was conducted using 400 authentic questions from the 2023 Chinese National Clinical Medical Laboratory Technician Qualification Examination. Five LLMs (Copilot, Grok, Yuanbao, Doubao, Kimi) were tested through two rounds of interactions: zero-shot prompting and interaction-optimised prompting strategies (activating advanced functions, indicating the identity of a medical student, and asking only one question at a time). Performance disparities were analysed using chi-square tests, while content quality was assessed through the CLEAR framework (Completeness, Lack of false information, Evidence-based reasoning, Appropriateness, Relevance) via double-blind scoring of two medical laboratory technologists with advanced educating experience.

Results
In the first-round test, Doubao achieved the highest total score (375 correct out of 400). Doubao and Yuanbao significantly outperformed Copilot and Kimi ($P<0.005$). After the second round of interactive optimisation, Kimi's accuracy significantly improved, while the other LLMs showed slight improvements. Doubao still had the highest total score (380 correct out of 400) in the second round. In the two rounds of CLEAR framework scoring before and after, the Cohen's κ coefficients of the five dimensions were all between 0.72 and 0.85, indicating the scores of the two raters were relatively consistent. Evaluation based on the CLEAR framework revealed that Yuanbao, Doubao, and Kimi significantly outperformed Copilot and Grok in the dimensions of evidence-based reasoning ($P<0.003$) and completeness ($P<0.05$), demonstrating their ability to standardly cite authoritative evidence and generate high-quality content.

Conclusion
The tested LLMs exhibit substantial medical laboratory knowledge proficiency. Task-specific prompting and advanced functions effectively enhance both accuracy and content quality. Chinese LLMs demonstrate distinct advantages in evidence-based reasoning and completeness. LLMs can be potential "more knowledgeable others" (MKO) to scaffold medical laboratory students' learning within the zone of proximal development (ZPD).

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

INTERPROFESSIONAL SOCIALISATION AND COLLABORATION AMONG FIRST-YEAR HEALTHCARE UNDERGRADUATES IN SINGAPORE: A MIXED-METHODS STUDY

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Background and Aims
Interprofessional education is critical in preparing healthcare students for collaborative practice to enhance patient outcomes. The Longitudinal Patient Experience (LPE) programme at the National University of Singapore (NUS) offers interprofessional learning involving students from Medicine, Nursing, Pharmacy, and Dentistry faculties. In the LPE programme, students conduct home visits to people with chronic conditions. The aim of the LPE programme is to enable students to understand how people's social determinants of health and home living environments can impact their health and how they cope with their illnesses. However, key factors influencing successful interprofessional education through the LPE programme remain unclear. This study aims to investigate interprofessional socialisation and collaborative attitudes among LPE students. It also explores motivational factors, perceived barriers, and interprofessional dynamics influencing these attitudes, as guided by Schwartz's Theory of Human Values.

Methods
This cross-sectional study surveyed first-year NUS healthcare students in 2023 using convenience sampling. An online questionnaire comprised two validated instruments:

1) Interprofessional Socialisation and Valuing Scale-21 (21 items, 7-point Likert scale; total score range: 0-126). Higher scores reflect stronger interprofessional socialisation attitudes; and
2) Interprofessional Collaboration Competency Attainment Survey (20 items, 5-point Likert scale; total score range: 20-100). Higher scores indicate more positive collaborative attitudes.

Quantitative data was analysed using one-way ANOVA and Pearson's correlation. No missing data was reported. Concurrently, qualitative responses were collected to capture students' perspectives on interprofessional education and collaboration. Thematic analysis was used to analyse the data and data saturation was reached.

Results
A total of 365 students (42.1% response rate) participated. The students' average age was 21 years (SD=4.71), ranging from 18 to 55. Most students were female and of Chinese ethnicity.

Quantitative findings showed that 54% reported positive prior community patient experience. Students demonstrated positive interprofessional socialisation (mean=4.10, SD=0.89) and collaborative attitudes (mean=3.65, SD=0.67). Medicine and Dentistry students scored significantly higher in interprofessional socialisation than Nursing and Pharmacy students. Positive prior community experiences and stronger socialisation attitudes were associated with more positive collaborative attitudes.

Qualitative findings described students' self-motivation to learn about other roles and team bonding opportunities facilitated by knowledge preparation and aligned scheduling. Students expressed apprehension about interprofessional education due to unclear roles and low self-confidence. Preconceived stereotypes and lack of inclusivity were identified to lessen interprofessional socialisation. On the other hand, sharing common mental models and goals, open communication, willingness to socialise, and mutual respect improved interprofessional collaboration.

Conclusion
Students in the NUS LPE programme exhibited overall positive interprofessional socialisation and collaborative attitudes, though differences exist across disciplines. Key influencing factors included prior patient engagement, professional identity, and self-driven learning. These findings provide valuable

insights to inform the design of targeted interprofessional education strategies aimed at fostering collaborative competencies among early-year healthcare students.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EFFECTIVENESS OF A TECHNOLOGY-ENHANCED TRAINING PROGRAMME FOR HYPERTENSION MANAGEMENT AMONG PRIMARY HEALTHCARE PROVIDERS IN BINH DUONG, VIETNAM

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Background and Aims
Hypertension, a leading non-communicable disease in Vietnam, affects 47.3% of adults, with 69% of cases uncontrolled as reported in 2015, contributing significantly to cardiovascular morbidity and economic burdens. Primary healthcare providers, predominantly medical assistants at commune health stations, face challenges in managing hypertension due to limited training, outdated teaching methods, and resource constraints. Most providers undertake multiple roles, including health education and disease prevention, which dilutes their focus on clinical management. Traditional lecture-based training has proven inadequate for developing practical skills, necessitating innovative approaches. This study evaluates a technology-enhanced, competency-based training programme utilising an e-learning platform and a flipped classroom model. Implemented in Binh Duong, Vietnam, the programme aims to strengthen providers' skills in hypertension diagnosis, treatment, and counselling, addressing critical gaps in medical education and improving community health outcomes.

Methods
An interventional study was conducted in 2018 with 39 primary healthcare providers (97.5% participation) from 10 health stations in Thuan An town, Binh Duong province, Vietnam. The participants were divided into intervention (n=19) and control (n=20) groups via random selection. The intervention group underwent a flipped classroom training programme, accessing materials via an e-learning system managed by the University of Medicine and Pharmacy, Ho Chi Minh City. Knowledge was assessed using multiple-choice questionnaires, and skills were evaluated with checklists during simulated patient scenarios (new and returning patients) before, immediately after, and six months post-training. Data was analysed using paired t-tests, ANOVA, and difference-in-difference analysis.

Results
In the intervention group, mean knowledge scores increased by 2.8 points immediately post-training and 1.9 points at six months compared to baseline ($p<0.001$), with a significant between-group difference ($p=0.0001$). Skills improved significantly in the intervention group, including inviting patients to sit (47.4% to 100%, $p=0.0003$) and ordering appropriate tests (5.3% to 47.4%, $p=0.002$) for new patients, and praising patient efforts (5.3% to 52.6%, $p=0.003$) for returning patients. Eight skills for new patients and seven for returning patients showed significant before-after differences compared to the control group ($p<0.05$).

Conclusion
The technology-enhanced training programme significantly improved primary healthcare providers' knowledge and skills in hypertension management, underscoring the effectiveness of the flipped classroom model. Refining and expanding this innovative training approach across Vietnam's healthcare system could enhance provider capacity and patient care quality. Future studies with extended follow-up periods and evaluations of additional health outcomes, such as cardiovascular events or diabetes management, are essential to assess long-term impacts and scalability.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

SIMULATED PATIENTS IN TRADITIONAL CHINESE MEDICINE EDUCATION: EVIDENCE-BASED INSIGHTS FROM A META-ANALYSIS OF RANDOMISED CONTROLLED TRIALS

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Background and Aims
Simulated patient (SP) pedagogy has recently gained considerable traction in Traditional Chinese Medicine (TCM) education. Despite its growing popularity, the effectiveness of SP in enhancing TCM student learning outcomes has yet to be evaluated. This meta-analysis of randomised controlled studies aimed to evaluate the impact of SP on TCM education by comparing its effectiveness to traditional pedagogy (TP).

Methods
A comprehensive search was conducted across eight databases, including China National Knowledge Infrastructure, Chinese VIP Information Database, Chinese Wanfang Database, Chinese Biological Medicine Database, PubMed, Cochrane Library, Web of Science, and EMBASE, from inception to May 15, 2024, to identify eligible randomised controlled trials. The primary outcomes were scores on the theoretical exam, practical skills exam, and comprehensive exam. While the secondary outcomes included assessment results of communication skills, the Dundee Ready Educational Environment Measure (DREEM), and questionnaires regarding student preferences and endorsements of the impact of SP pedagogy on learning enthusiasm and efficiency, self-directed learning ability, critical thinking skills, problem-solving ability, caring ability, and cooperation ability. This meta-analysis utilised RevMan V.5.3 software in adherence to the Cochrane Reviewer's Handbook guidelines and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement.

Results
30 eligible studies involving 2,208 students (1,106 in the SP intervention group and 1,102 in the TP control group) published from 2011 to 2023 were included in this meta-analysis. The pooled findings revealed that SP pedagogy significantly outperformed TP in TCM education, as evidenced by improved theoretical exam scores (MD=5.11, 95% CI: 3.32-6.89, P<0.00001), practical skill exam scores (MD=8.47, 95%CI: 6.13-10.80, P<0.00001), and comprehensive exam scores (MD=7.67, 95%CI: 5.22-10.12, P<0.00001). Additionally, SP pedagogy significantly improved student communication skills (MD =10.02, 95% CI: 5.43-14.61, p<0.0001). Analysis of the DREEM indicated that SP pedagogy could positively influence students' perceptions of learning (MD =3.80, 95% CI: 2.36-5.24, p<0.00001), perceptions of teachers (MD=2.64, 95% CI: 1.47-3.81, p<0.00001), academic self-perceptions (MD =2.32, 95% CI: 1.27-3.37, p<0.0001), perceptions of educational environment (MD=1.70, 95% CI: 0.19-3.22, p<0.05), and social self-perceptions (MD=5.37, 95% CI: 4.25-6.49, p<0.00001). Narrative analysis revealed a preference for SP among respondents and an endorsement of its effectiveness in enhancing students' learning enthusiasm, critical thinking skills, problem-solving abilities, and humanistic caring abilities. The symmetrical funnel plot demonstrated no evidence of potential publication bias, and the sensitivity analysis validated the stability and robustness of the pooled results.

Conclusion
Current evidence suggests that SP pedagogy can effectively enhance student learning outcomes and highlights its transformative potential in TCM education.

The related manuscript is under review at BMC Medical Education.

THE ASIA-PACIFIC SCHOLAR
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Short Communications

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Friday 23 January 2026, 1.45pm

London Hall & Washington Hall, Level 5

SHORT COMMUNICATIONS 1

Can Students Use Generative AI Wisely Without any Guidance? An Observational Study at Tsinghua University
Hange Li, China

Enhancing Concept Map Teaching Techniques Using Students' Handwritten Concept Map Notes
Sulthan Al Rashid, India

West China Clinical Medicine School: Advanced Clinical Skills Course for Postgraduates, Innovative Approaches for Advanced Clinical Skills Courses
Jingya Zhou, China

Current Status and Barriers to Scientific Research Activities Within Undergraduate Medical Students in a Developing Country
Tu Ngoc Nguyen, Vietnam

Revolutionising Neurosurgical Learning: How Virtual Patient Simulation Transforms Medical Education and Enhances Student Satisfaction at Phrapokklao Medical Centre in Thailand
Adisak Tanpun, Thailand

Supporting General Practitioner Education for Healthier SG: The NUHS Experience
Minsheng Hou, Singapore

Assessment Drives Engagement, but Engagement Does Not Always Predict Performance
Hannah Joo Min Lim, Singapore

The Impact of a Longitudinal Mentorship Program on Medical Students: A Mixed-Methods Study
Phuong Giang Nguyen, Vietnam

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

CAN STUDENTS USE GENERATIVE AI WISELY WITHOUT ANY GUIDANCE? AN OBSERVATIONAL STUDY AT TSINGHUA UNIVERSITY

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Background and Aims
Generative AI has rapidly evolved and has the potential to change medical education profoundly. Medical educators have adopted generative AI to facilitate instructional material generation, assessment and feedback. Students can also use publicly available generative AI for obtaining answers and brainstorming. Although more and more students are using generative AI for their study, little is known about how they actually use it. This study aims to observe how medical students actually use generative AI integrated into their learning management system at Tsinghua University.

Methods
General pathology was one of the 100 courses equipped with a vertical AI platform on the learning management system at Tsinghua University. The foundational model was ChatGLM, and Retrieval Augmented Generation technology was employed to enhance AI responses by incorporating relevant information from the knowledge base by the course director. In the General Pathology course between September and December 2025, all the 60 third-year students of the eight-year programme were encouraged to use this AI platform and they were aware that all the interactions would be recorded in the backend data. No specific guidance on how to use this AI platform was provided. After anonymising the record, two students voluntarily participated in categorising the interactions of the remaining 58 students based on Bloom's Taxonomy, and determining whether the prompts inputted by the students were aligned with the questions raised by the instructor before. The two students independently categorised the interactions, and consensus was achieved with the confirmation of a researcher and the course instructor,

Results
Among the 58 students included in the study, 38 actively used this AI platform, generating 711 meaningful interactions in the fall semester. The distribution of Bloom's Taxonomy is: 58.9% (419/711) at Level one (Remembering), 38.4% (273/711) at Level two (Understanding), 1.8% (13/711) at Level three (Applying), 0.7% (5/711) at Level four (Analysing), 0 at Level five (Evaluating), and 0.1% (1/711) at Level six (Creating). There were 278 prompts in accordance with the instructor's questions raised in the class or in the assignments, accounting for 39.1% of the total interactions.

Conclusion
The findings indicate that without specific guidance, students primarily use generative AI for lower levels of Bloom's Taxonomy. In addition, they ask generative AI to answer a considerable number of questions assigned by their instructor, which might bypass the process of effortful learning. Therefore, medical educators should proactively guide students on effective AI usage and foster higher-level learning in Bloom's Taxonomy. It is also important for medical educators to design AI tools and learning activities with generative AI based on learning theories and effective learning strategies so that students can take full advantage of generative AI while maintain effortful learning.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ENHANCING CONCEPT MAP TEACHING TECHNIQUES USING STUDENTS' HANDWRITTEN CONCEPT MAP NOTES

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Background and Aims
Concept maps are valuable educational tools known to promote critical thinking and facilitate knowledge integration in medical education. However, there is limited research on the effectiveness of combining handwritten concept map notes with traditional concept map-based teaching methods to enhance student performance.

Methods
The study was conducted at Saveetha Medical College and Hospital, focusing on two MBBS cohorts for comparison. The 2020 batch received conventional teaching methods without the use of concept maps, whereas the 2021 batch was taught using concept map-based strategies supplemented with students' handwritten concept map notes. Academic performance was evaluated during the final summative examination, and a t-test was utilised to analyse and compare the outcomes of both groups.

Results
The 2021 MBBS batch exhibited significantly higher academic performance, with a mean score of 75.71%, compared to 62.78% in the 2020 batch ($p<0.001$). The findings underscore the effectiveness of integrating concept maps and handwritten notes in improving students' comprehension and academic achievement.

Conclusion
The combination of handwritten concept map notes with concept map teaching techniques significantly enhances academic performance in medical students. This approach is a practical and innovative strategy for meeting diverse learning needs in medical education. Further research is recommended to explore its effectiveness across different learner profiles and its influence on long-term knowledge retention.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

WEST CHINA CLINICAL MEDICINE SCHOOL: ADVANCED CLINICAL SKILLS COURSE FOR POSTGRADUATES, INNOVATIVE APPROACHES FOR ADVANCED CLINICAL SKILLS COURSES

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Background and Aims
The new wave of technological revolution, represented by generative artificial intelligence, embodied intelligence, and surgical robots, poses significant challenges to traditional clinical skills training models. While technologies such as Da Vinci surgical robots and telesurgery are widely used in hospitals, classroom teaching of clinical skills often remains at the level of basic surgical procedures, leaving students unable to learn the technologies actually used at the clinical frontline. To bridge the substantial gap between the content of postgraduate medical curricula and the practical technologies employed in clinical settings, West China Clinical Medical School of Sichuan University initiated the development of an advanced clinical skills course system focused on enhancing clinical competency. This system utilises high-end equipment and laboratory animals outside the confines of the live operating room

Methods
Guided by Competency-Based Medical Education (CBME), this project was launched in the Spring semester of 2024. Leveraging the advanced platforms of the National Experimental Teaching Demonstration Centre for Clinical Skills—such as virtual simulation systems, the multi-modal surgical skills training and innovation centre, and the animal surgery laboratory—15 advanced clinical skill courses were developed and led by various clinical surgical departments based on frontline clinical technologies. This initiative achieved comprehensive coverage across all surgical specialties ahead of others. The courses adopted a small-group teaching model integrating "theoretical instruction + simulation training + hands-on animal surgery," delivered by senior clinical faculty teams. The training focused on core surgical skills such as robotic surgery, laparoscopy, endoscopy, and microvascular anastomosis.

Results
As of the Spring semester of 2025, the first four courses had completed their teaching cycles, having trained over 90 participants cumulatively. Student evaluation results showed an average course rating of 4.73 out of 5, with 73.6% of students rating their course experience as "above" or "far exceeding" expectations. More importantly, the proportion of students capable of competently performing surgical procedures independently or with minimal assistance significantly increased from 8.3% before the course to 31.9% after, demonstrating a marked improvement in practical operational skills and confidence.

Conclusion
The advanced clinical skills course system established by West China Clinical Medical School has successfully pioneered an innovative pathway that effectively bridges theory and clinical practice through systematic simulation and animal surgery training. This model has significantly enhanced postgraduate medical students' mastery of cutting-edge technologies and complex surgical procedures, laying a solid foundation for their confident transition to the operating room upon graduation. It provides a referable "West China Model" for cultivating advanced clinical medical talent nationally.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

CURRENT STATUS AND BARRIERS TO SCIENTIFIC RESEARCH ACTIVITIES WITHIN UNDERGRADUATE MEDICAL STUDENTS IN A DEVELOPING COUNTRY

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Background and Aims
Among the most important activities for university students today is scientific research, especially with the rapid development of science and technology. This activity helps students enhance their knowledge, foster creativity, and contribute to societal progress. Engaging in scientific research is essential for students to stay at the forefront of technological advancements and to actively participate in shaping a better future. The study aims to conduct a survey on the rate and readiness level to participate in scientific research activities of the students of the University of Medicine and Pharmacy at Ho Chi Minh City and barriers to toward medical research activities.

Methods
Descriptive cross-sectional study on students of various majors at University of Medicine and Pharmacy at Ho Chi Minh City in the 2024-2025 academic year. We conducted a survey through an online questionnaire.

Results
The study recorded 5.312 students taking the survey, showing that 31.08% of students “strongly agree” and 49.83% “agree” with the importance of scientific research activities among students. 90.05% of students had already known about scientific research activities, of which 22.20% of students had participated or were participating in a scientific research activity. Among the group of students who have known and have participated or are participating in scientific research activities, the most popular form of participation is “essays, topics for specialised subjects” with 23.10% of students participating, followed by “graduation thesis, Faculty-level research topics” accounting for 22.34%. Key objective barriers identified included difficulty in identifying research topics (87.2%) and insufficient access to supervisors or team members (64.3%). Furthermore, 84% of students reported a lack of research skills and 61.71% identified English language barriers in subjective barriers.

Conclusion
Students highly agree with the importance of scientific research (80.91%), over 90% of students know about scientific research activities, but only 22.2% of students have participated or are participating in a scientific research activity, this rate varies between faculties. However, significant institutional and individual barriers persist, particularly in LMICs.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

REVOLUTIONISING NEUROSURGICAL LEARNING: HOW VIRTUAL PATIENT SIMULATION TRANSFORMS MEDICAL EDUCATION AND ENHANCES STUDENT SATISFACTION AT PHRAPOKKLAO MEDICAL CENTRE IN THAILAND

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Background and Aims
Learning in neurosurgery topic presents significant challenges, requiring extensive practice and experience. Traditional methods such as lecture base teaching and surgical observation have limitations in accessibility, cost, and opportunities for repeated practice. Virtual Patient Simulation (VPS) offers a promising alternative, allowing students to practice complex procedures in a safe, controlled environment. This research aims to investigate the effects of virtual patient simulation on medical students' satisfaction in neurosurgical education.

Methods
This study employed a mixed-methods approach. The quantitative component utilised a quasi-experimental design with a One-shot Case Study Design. Data was analysed using descriptive statistics and One-sample t-test to evaluate satisfaction scores. Pearson correlation was used to determine the relationship between satisfaction and perceived learning outcomes. For the qualitative component, data was collected through open-ended questions in an online questionnaire and analysed using thematic analysis. The sample consisted of 23 medical students who used virtual patient simulation.

Results
The one-sample t-test revealed that the mean satisfaction with virtual patient simulation (M=1.386, SD=.514) was significantly higher than the moderate criterion (three points) at the .05 level, t(22)=12.934, p=.000. Correlation analysis at 95% confidence level showed a statistically significant positive relationship between experience with virtual patient simulation and educational satisfaction at the .01 level, with a high correlation (r=.643, Sig.=.001). Qualitative findings indicated that virtual patient simulation effectively replicated patient dynamics and clinical environments, enabling learners to develop decision-making skills and patient management in realistic scenarios. However, technical limitations and system complexity were noted as challenges.

Conclusion
Virtual patient simulation demonstrates high potential for enhancing neurosurgical education, particularly for rare or complex scenarios. However, improvements in system efficiency and stability, development of user-friendly interfaces with Thai language support, increased access rights, and creation of versions for self-practice outside class hours, along with appropriate curriculum integration, would maximise the benefits of this technology in developing effective neurosurgical education systems.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

SUPPORTING GENERAL PRACTITIONER EDUCATION FOR HEALTHIER SG: THE NUHS EXPERIENCE

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Background and Aims

Singapore's transition to a population health approach under the Healthier SG (HSG) strategy requires a paradigm shift in how General Practitioners (GPs) are engaged and supported. Under the former fee-for-service model, Continuing Medical Education (CME) sessions were often fragmented and aimed at increasing referrals to specialist services. With the adoption of capitation-based financing, the emphasis has shifted to empowering GPs to manage patients proactively within the community. Against this backdrop, the National University Health System (NUHS) Regional Health System Office sought to enhance the way Continuing Medical Education (CME) is delivered to GPs – not just as means of knowledge transfer, but as a strategic tool for partnership, empowerment, and care transformation enhance primary care delivery in the western region of Singapore, covering 1.2 million residents.

As a CME provider, the primary care partnerships training team aimed to (1) improve the coherence and impact of GP training across NUHS institutions, (2) support the training and development of GP clinic assistants to enhance their participation as a member of the multi-disciplinary care team to allow healthcare professionals to focus on more advanced clinical tasks, (3) enhance GP engagement and upskilling so as to develop communities of practice and share care pathways and (4) build long-term relationships with GPs as key partners in population health.

Methods

1. Purpose-driven CME sessions – Topics were carefully selected to match both national health priorities (e.g., mental health, ageing, chronic disease) and GPs' learning interests. Sessions were designed with input from GP leads, who also co-chaired events and shaped discussions through pre-submitted questions. CMEs were also consolidated to reduce duplicates.
2. NUHS Education Support and Training Hub (NEST) – mobile-friendly portal offering access to recorded CMEs, resource materials, and upcoming events. This addressed the need for asynchronous learning among time-pressed GPs.
3. Community-Specialist Integration (CSI) Alliance events – Relationship-focused CME lunches/dinners were organised to foster trust and dialogue with GPs, while also exploring communities of practice (CoPs) for collaborative care.
4. OneNUHS Education Meeting – A regular coordination forum involving stakeholders from the Department of Family Medicine (NUS, NUH), National University Polyclinics, and the Primary Care Partnerships team to synergise and align educational initiatives.

Results

Between July 2024 and July 2025, CME sessions attracted strong participation across diverse topics. Attendees consistently rated the sessions as highly useful (average >4.5 out of 5). NEST enrolment grew steadily, reflecting increasing interest in on-demand learning. Feedback highlighted appreciation for the practical content, inclusive facilitation style, and consistency in delivery.

Conclusion

Our experience highlights that GPs respond well to educational efforts that are relevant, co-created, and relational. Rather than overpopulating the calendar with isolated sessions, we found value in pacing the learning, listening to GP feedback, and investing in trust-building opportunities. Digital platforms also proved essential in extending the reach and impact of CME offerings. In the context of Healthier SG, CME is more than continuing education-it is a platform for partnership and transformation. As providers, we must remain responsive, collaborative, and intentional in the way we support GPs on this journey.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ASSESSMENT DRIVES ENGAGEMENT, BUT ENGAGEMENT DOES NOT ALWAYS PREDICT PERFORMANCE

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Background and Aims
Although the medical degree offers feedback across multiple components, students often feel it lacks the timeliness and depth needed to fully support their learning. To address this, we developed and implemented a Learning Progress Dashboard (LPD) aligned with the principles of programmatic assessment (PA); that is, offering meaningful opportunity for learning, emphasising feedback over grades to support continuous development. The LPD contains several pages that collectively provide a visual representation of various sources of assessment data.

Student engagement with digital tools is often recognised as an important contributor in academic success. To investigate the LPD's impact, our aim in this study was to explore usage patterns and whether this was linked to their assessment performance.

Methods
Our target population was year one students (n=187) from Lee Kong Chian School of Medicine, Singapore. All students received an orientation to the LPD at the beginning of the academic year.

Eighty-one assessment activities were captured in the LPD over the time period of the study (Year one of our MBBS programme). Data was refreshed biweekly, with multiple assessment data points updated in each refresh throughout the academic year. Data presentation included normative and longitudinal referencing, to help students reflect on their own performance relative to their peers, to enable reflection and encourage agency in learning. Student usage data was automatically captured throughout the academic year via the hosting platform. The data was based on page visits, recorded each time a student accessed a specific page of the LPD.

Usage data was extracted and analysed alongside students' assessment activities results. Raw usage data was pre-processed and analysed using Python, using libraries such as Pandas for data manipulation, SciPy for statistical analysis, and Matplotlib for visualisation.

Results
Students accessed the LPD an average of 27.25 times (median=18), with high variability (sd=28.64), totalling 5,095 views. Peaks in access were observed primarily around assessment release dates. We found that overall student engagement with the LPD, quantified by dashboard views, did not show correlation with students' performance across all assessment activities (r=-0.057, 95% CI: -0.199 to 0.087, p=0.439). This relationship holds even when outliers (>±2sd) were excluded (r = -0.004, 95% CI: -0.147 to 0.140, p=0.957).

Conclusion
Students often view assessment as an opportunity to learn and actively seek feedback to support their development. Although engagement is frequently associated with academic success, our findings suggest that the relationship may be more complex. In this study, students who viewed LPD more frequently were not necessarily the highest performers. This suggests that engaging with the LPD as just one of many assessment tools does not necessarily lead to improved academic performance.

We also recognise that engagement encompasses more than just usage patterns. Qualitative methods, such as think aloud protocols, could offer deeper insight into how students interact with the LPD and what they are thinking during that process. To explore this further, we plan to examine multiple facets of data to better understand the relationship between LPD use and academic achievement.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE IMPACT OF A LONGITUDINAL MENTORSHIP PROGRAMME ON MEDICAL STUDENTS: A MIXED-METHODS STUDY

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Background and Aims
Mentorship plays a pivotal role in medical education, influencing students' career paths, professional identity, and confidence in clinical skills. At VinUniversity, a private educational institution in Hanoi, Vietnam, the Longitudinal Mentorship Programme (LMP) was designed to address the gap in structured mentorship in low- and middle-income countries. This programme integrates continuous, personalised guidance from experienced mentors throughout the medical education process. VinUniversity, established with a vision to advance health sciences education in Vietnam, serves as an ideal setting for implementing such innovative educational strategies. The LMP aims to enhance students' academic and professional development by connecting them with mentors who can provide real-world insights, support, and career guidance, ultimately fostering a robust professional network and a strong sense of professional identity among the students.

Methods
This mixed-methods study included 83 medical students from the first two cohorts at VinUniversity. Quantitative data was collected through a cross-sectional survey assessing mentorship's influence on specialty selection, confidence, and professional identity formation using a 5-point Likert scale. Qualitative data was obtained via semi-structured interviews with 14 students, exploring mentorship's role in career transitions, gender considerations, work-life balance, and role model influences. Statistical analyses, including Spearman correlation and group comparisons, were conducted for quantitative data, while thematic analysis was applied to qualitative findings.

Results
Mentorship significantly influenced students' career trajectories by reinforcing specialty interests, enhancing confidence, and strengthening professional networks. Students highly value mentors' expertise, role modelling, and personalised guidance. Emotional support and accessibility played a vital role in fostering resilience and engagement. Gender differences were observed, with female students reporting greater reliance on mentorship for career validation. The effectiveness of mentorship was strongly linked to mentor-mentee compatibility, emphasizing the need for structured mentor selection.

Conclusion
This study highlights the critical role of longitudinal mentorship in medical education, demonstrating its impact on career certainty, motivation, and professional identity formation. The findings support the integration of structured mentorship programmes into medical curricula to enhance career preparedness and student development. Future research should investigate the long-term effects of mentorship beyond medical school and explore strategies for optimising mentor-mentee pairing to maximise its benefits.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Friday 23 January 2026, 3.30pm

London Hall & Washington Hall, Level 5

SHORT COMMUNICATIONS 2

Prevalence, Risk Factors and Psychological Correlates of Imposter Syndrome Amongst Medical Students in Singapore
Chong Han Peh, Singapore

A Study on the Relationship Between Agentic Engagement and Training Outcomes During Standardised Residency Training in China
Luping Wang, China

Lessons Learned from a Study of the Integration of a Basic Echocardiography Workshop for Final-Year Medical Students
Sivayos Deetes, Thailand

Evaluating Large Language Models and AI Agents in Pathology Teaching: A Comparative Study
Yiling Huang, China

Building Interprofessional Education Capacity: A Mixed-Methods Evaluation of a TOT Course for 10 Vietnamese Health-Science Schools
Phuong Huynh Thi Bich, Vietnam

Practice and Reflection on Tutorial Discussion in the Teaching of "Fundamentals of Pathology and Pharmacology"
Zhengrong Mao, China

Theoretical Foundations of Online Educational Interventions to Teach Clinical Reasoning for Undergraduate Medical Students: A Scoping Review
Xiao Yu Zhao, The Netherlands

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

PREVALENCE, RISK FACTORS AND PSYCHOLOGICAL CORRELATES OF IMPOSTER SYNDROME AMONGST MEDICAL STUDENTS IN SINGAPORE

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Background and Aims
In Singapore, a highly competitive and high-performing academic culture is deeply ingrained, where both students and their families often harbour fears of falling behind. This mentality extends into undergraduate medical education, where students may experience Imposter Syndrome (IS) – a psychological phenomenon in which individuals perceive themselves as intellectual frauds, despite objective evidence of their competence and achievements. This study seeks to examine the prevalence, risk factors, and psychosocial outcomes of IS among undergraduate medical students in Singapore, with the aim of informing future curriculum planning and student support strategies.

Methods
An anonymous cross-sectional survey was conducted among 149 students from two local undergraduate medical schools: the NUS Yong Loo Lin School of Medicine and the NTU Lee Kong Chian School of Medicine. All undergraduate medical students across the five-year curriculum were eligible for inclusion, excluding postgraduate medical students. Clinically validated instruments were used, including the Harvey Imposter Phenomenon Scale (HIPS), the Rosenberg Self-Esteem Scale (RSES), the Patient Health Questionnaire-2 (PHQ-2), and the Generalised Anxiety Disorder 2-item questionnaire (GAD-2).

Results
Primary analyses were performed on complete survey responses (N=82), with pairwise deletion applied during bivariate analyses to maximise data usage. Of the respondents, 49% were male and 51% were female. A total of 55% were in their pre-clinical years and 45% were in their clinical years. The median HIPS score was 41 out of 84, indicating a mild degree of imposter syndrome among the respondents. Although this level of IS may not yet be severely impairing, it raises concerns, particularly given the mounting academic and emotional demands faced by students.

We further explored the psychosocial correlates of IS. The median RSES score was 17 out of 40, suggesting low self-esteem in this population. The median PHQ-2 score was three out of six, a borderline result when screening for depressive symptoms. Meanwhile, the median GAD-2 score was four out of six, meeting the threshold for a positive screen for generalised anxiety. These findings suggest that imposter syndrome may be closely linked to issues of self-worth, anxiety, and emotional distress among medical students.

Conclusion
To prevent IS from worsening or impairing students' wellbeing, we propose both systemic and individual-level strategies. At the institutional level, medical schools should recognise the presence of IS and provide timely and compassionate support. Reducing overly competitive practices and encouraging peer collaboration may alleviate comparative stress and foster a healthier learning environment. On a personal level, students can be introduced to the "ABCs" against IS:

A – Awareness, Acknowledgement, and Acceptance of imposter thoughts;
B – Be kind to yourself and practise self-compassion;
C – Change your mind set by viewing setbacks as learning opportunities rather than personal inadequacies.

This study presents novel data on the prevalence and psychological correlates of imposter syndrome in Singaporean medical students and highlights the importance of early recognition and support in medical education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

A STUDY ON THE RELATIONSHIP BETWEEN AGENTIC ENGAGEMENT AND TRAINING OUTCOMES DURING STANDARDISED RESIDENCY TRAINING IN CHINA

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Background and Aims
Agentic engagement is defined as the proactive, intentional contributions students make to their flow of instruction. Previous studies have suggested that students with higher levels of agentic engagement tend to have better academic performance, while other research indicates that agentic engagement does not necessarily enhance students' academic outcomes. Previous related studies have mostly been confined to secondary education settings, and there is currently no research on agentic participation during the standardised residency training phase, whereas students at this stage actually have more opportunities for agentic engagement. Therefore, this study aims to evaluate the relationship between the degree of agentic engagement and the training outcomes during the standardised residency training phase, providing a basis for determining whether it is necessary to stimulate students' agentic engagement and how to enhance such engagement.

Methods
Through a literature search on agentic engagement scales, proactive behaviours, and adult learning, we listed behaviours that could characterise agentic engagement during residency training activities. Following exploratory observations, we refined this list to better align with the specific context of residency training. Subsequently, these behavioural characteristics were designed into a questionnaire using the Likert 5-point scale and distributed to resident physicians participating in standardised residency training in our hospital. Participants self-reported their level of agentic engagement, and their final assessment scores upon completion of the residency training were tracked as standardised measures of training effectiveness. After the survey, sampling interviews were conducted to identify factors that either stimulated or inhibited agentic engagement behaviours among resident physicians.

Results
We identified behaviour patterns unique to the medical education context during the standardised residency training phase that reflect agentic engagement. The anticipated results indicate: under this behaviour pattern, the level of agentic engagement assessed through questionnaires shows a significant positive correlation with the final assessment scores upon completion of the residency training ($r \geq 0.4$, $P < 0.05$).

Conclusion
This study provides strong evidence for the effectiveness of agentic engagement in enhancing the outcomes of standardised residency training in medical education. Residency training bases should actively stimulate agentic engagement behaviours among resident physicians. The limitations of this study lie in the single source of samples, and future research could expand multicentre samples to improve the generalisability of the results.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

LESSONS LEARNED FROM A STUDY OF THE INTEGRATION OF A BASIC ECHOCARDIOGRAPHY WORKSHOP FOR FINAL-YEAR MEDICAL STUDENTS

Deetes S

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Background and Aims
Basic echocardiography is an essential instrument in contemporary care. However, it is currently not included in the 'Doctor of Medicine' curriculum in Thailand. This study aims to assess basic echocardiography skills to obtain the standard view (step by step) of final-year medical students after a basic echocardiography workshop.

Methods
This prospective cross-sectional descriptive study was conducted in The Medical Education of Maharat Nakhon Ratchasima Hospital, Nakhon Ratchasima, Thailand. All final-year medical students studying in the internal medicine rotation programme participated in the workshop activities. The basic echocardiography workshop consists of two parts: a lecture and a hands-on training session, including the standard view. After two weeks, the practical skills in terms of image quality of real patients were evaluated. Furthermore, a questionnaire was also used to gather their perspectives about the importance of the workshop and their confidence.

Results
A total of 155 final-year medical students attended the basic echocardiography workshop. Among these, 46.45%, or 72 individuals are male. The average age of the participants is approximately 23.51 years. About half of the participants had no experience conducting basic echocardiography on patients. The accuracy in identifying location is 75.67%, and the standard image acquisition accuracy is 62.17%. These results are not based on experience in echocardiography (p-value 0.26 and 0.61, respectively). The subcostal view and parasternal short axis view have the highest (67.52%) and lowest (54.46%) achievement, respectively.

Almost 100 percent (154 out of 155) believe that basic echocardiography is crucial in patient care. An overwhelming 88.39% (or 137 of 155) expressed increased confidence in performing basic echocardiography and does not depend on experience in echocardiography (p-value 0.08). Most participants (98.71%) affirmed the workshop's value, recommending its inclusion in the MD degree curriculum.

In addition, a substantial majority (80.65%) believe that they should be able to independently perform basic echocardiography upon completion of the Doctor of Medicine programme.

Conclusion
Basic echocardiography is feasible and well-received even by final-year medical students. Integrating a basic echocardiography workshop into the undergraduate medical school curriculum could significantly enhance the quality of patient care.

Integrating a basic echocardiography workshop for final-year medical students has underscored the vital role of innovative teaching methods in enhancing clinical competencies. The students' perspectives contribute enhance the course material and inspire educators to devise innovative instructional approaches.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EVALUATING LARGE LANGUAGE MODELS AND AI AGENTS IN PATHOLOGY TEACHING: A COMPARATIVE STUDY

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Background and Aims
Artificial intelligence (AI) technology, with its powerful capabilities in data processing, pattern recognition, and intelligent decision-making, is reshaping medical education across multiple dimensions, including teaching methods, practical training, and resource allocation. Large Language Models (LLMs) and Agents are two closely related yet functionally distinct AI technologies. Our teaching team evaluated three LLMs-DeepSeek, Kimi, and Metaso-along with a custom-built AI agent named "I Love Learning Pathology" (Using ByteDance's Coze platform, Chinese name: Kouzi) to assess their accuracy of responses about pathology knowledge and its applicability for teaching. The goal was to provide practical evidence and optimisation strategies for AI-enhanced medical education.

Methods
We assessed the accuracy of the three LLMs and the self-built AI agent about professional pathology knowledge through queries and multiple-choice questions (MCQs) on oncology topics:1.What are the differences between neoplastic hyperplasia and non-neoplastic hyperplasia?2.How do benign and malignant tumours differ? Can metastasis distinguish them? Are benign tumours always non-metastatic? 3."Tumor spread" and "metastasis" are distinct concepts, Design two MCQs (each with five options) to test students' understanding of tumour dissemination versus metastasis.

Results
The three LLMs-DeepSeek, Kimi, and Metaso-along with the AI agent, provided correct answers to general oncology-related queries. Metaso included references and automatically generated interactive webpages, enhancing the learning experience. However, all three LLMs gave incorrect explanations regarding the distinction between tumour spread and metastasis, leading to flawed question designs. In contrast, the custom-built AI agent ("I Love Learning Pathology") provided precise conceptual explanations and designed two error-free MCQs.

Conclusion
While LLMs offer advantages such as broad knowledge coverage and rapid response times, their lack of Specialised Knowledge Training can lead to AI hallucinations (e.g., errors in fundamental oncology concepts). Educators must cultivate students' critical thinking skills and possess sufficient expertise to guide them in identifying such inaccuracies. In contrast, Developers of the custom-built AI agents possess full autonomy in constructing the knowledge repositories, which facilitates specialised database architectures. Through the ingestion of curated knowledge repositories and the application of logical constraints, the reliability of domain-specific outputs can be significantly enhanced, making this approach particularly suitable for the precision requirements of medical education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

BUILDING INTERPROFESSIONAL EDUCATION CAPACITY: A MIXED-METHODS EVALUATION OF A TOT COURSE FOR 10 VIETNAMESE HEALTH-SCIENCE SCHOOLS

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Background and Aims
Interprofessional Education (IPE) is recommended by the World Health Organisation (WHO) to enhance patient safety and health system quality. To address the growing demand for IPE implementation in Vietnam, the Medical Education Centre at the University of Medicine and Pharmacy at Ho Chi Minh City, in collaboration with the IMPACT-MED project, conducted a three-months online Training-of-Trainers (TOT) programme (November 2024 - January 2025) for faculty from 10 health-science institutions. This study aimed to (1) identify the faculty's needs in designing IPE modules and (2) describe and assess the extent to which those needs were addressed through the TOT interventions.

Methods
This study employed a sequential explanatory mixed-methods design.

Quantitative phase: A 12-item pre-course survey was conducted; descriptive statistics were reported as frequencies (%) using Excel.

Qualitative phase: Assignments and video presentations were coded through open–axial–selective thematic analysis by two researchers using NVivo 14; inter-rater agreement κ = 0.78.

Product evaluation: Five criteria were assessed (standardisation of CLOs and CLO–PLO alignment; module structure and workload; teaching methods; assessment methods; teaching–learning resources) using an alignment scale of zero to three. Two instructors independently rated submissions, with final scores reached by consensus.

Integration: A Needs × Intervention matrix was constructed by matching need prevalence with the number of institutional groups achieving Alignment ≥ 2 to determine how effectively the TOT programme addressed identified gaps.

Results
The pre-course survey highlighted three key faculty needs: enhancing competencies in IPE curriculum design (72.2%), completing course syllabi (49.5%), and developing appropriate learning resources (41.2%).

Five key intervention themes were identified: (1) standardising CLOs and aligning CLOs with PLOs; (2) specifying module workload and structure; (3) adopting active teaching strategies; (4) selecting appropriate assessment tools; (5) developing supportive teaching-learning resources.

Intervention outcomes included: 90% of institutions developed CLOs aligned with IPE competencies and completed CLO-PLO matrices; 80% clearly defined workload and module placement; 60% created initial simulation scenarios or educational games. The integrated matrix showed that the TOT programme effectively addressed most critical institutional needs.

Conclusion
The TOT course successfully addressed the three primary needs, strengthened faculty capacity in IPE module design, and laid the groundwork for scaling interprofessional education across 10 health-science institutions in Vietnam. Future directions include continued faculty development in IPE instructional skills and long-term evaluation of IPE implementation outcomes.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

PRACTICE AND REFLECTION ON TUTORIAL DISCUSSION IN THE TEACHING OF "FUNDAMENTALS OF PATHOLOGY AND PHARMACOLOGY"

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Background and Aims
In preclinical basic medical education in Chinese medical schools, there remains an emphasis on theoretical knowledge transmission while undervaluing the cultivation of abilities and competencies. Additionally, there is a relative disconnect between basic and clinical sciences, and the learning interest and motivation of medical students still need improvement. Centring on student growth, and competency-oriented training, Zhejiang University School of Medicine initiated a new round of medical education reform in 2023, building upon two decades of integrated basic medical education. This reform specifically introduces Tutorial discussions to construct and implement a multidisciplinary, integrated basic medical teaching system that combines foundational and clinical knowledge while fostering early clinical thinking.

Methods
In the newly integrated "Fundamentals of Pathology and Pharmacology" course at Zhejiang University School of Basic Medical Sciences which merges the general principles of pathology, pathophysiology, and pharmacology, four Tutorial cases were developed and implemented to address key and challenging topics across four chapters: tissue injury, circulatory disturbances, inflammation, and tumours. The cases include:

1) Debate: Fatty Heart vs. Tigroid Heart;
2) Investigating the Sudden Death of a Fracture Patient;
3) The Grim Reaper's Chain Reaction: Gallbladder, Heart, and Lung;
4) Diagnostic Mystery: Pathological Diagnosis of Lung Squamous Cell Carcinoma vs. Elevated Adenocarcinoma Markers.

Teachers underwent Tutorial training one semester in advance and collaboratively refined the cases through collective lesson planning. The Tutorial discussions were then conducted in small-group laboratory sessions (30 students/class, three to five students/group, two hours/session, five to six discussion questions/session) in smart labs supplemented by digital platforms.

Results
A Wenjuanxing survey of 240 students revealed that most participants held positive attitudes toward the discussion format: 78.33% reported being "very satisfied", while 18.75% were "satisfied". The course themes were highly engaging, with 74.17% expressing "strong interest" and 21.25% willing to "give it a try". Overall course satisfaction was notably high: 73.33% were "very satisfied", and 20% were "satisfied", reflecting broad approval of the course design and teaching quality. The combined satisfaction rate for teaching effectiveness and student recognition reached 98.34%, with 87.92% expressing "high satisfaction" with instructors.

Conclusion
Through the discussion of four cases, students gained clearer understanding of fundamental concepts, morphological features, and interrelationships in tissue injury, circulatory disturbances, inflammation, and tumours. They developed preliminary abilities to synthesise knowledge for analysing clinical problems and diagnosing or differentiating common diseases. The practice significantly enhanced self-directed learning, teamwork, and problem-solving skills, along with foundational clinical reasoning. Real-world cases and scenarios cultivated students' professional ethos of "compassion and healing", fostering intrinsic motivation for learning.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THEORETICAL FOUNDATIONS OF ONLINE EDUCATIONAL INTERVENTIONS TO TEACH CLINICAL REASONING FOR UNDERGRADUATE MEDICAL STUDENTS: A SCOPING REVIEW

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Background and Aims
Technological advancements are reshaping educational practices, with online education making significant strides in medical training. However, there is limited understanding of whether these innovations are grounded in established educational theories, which is crucial for realising their full potential. This scoping review mapped and reflected upon to what extent clinical reasoning (CR) and educational theories were used to develop and/or design online educational interventions to teach CR, which theories predominated, and how these theories were applied in the instructional design.

Methods
We conducted a scoping review following the Joanna Briggs Institute methodology. Thirteen electronic databases were searched for primary studies published in English up to February 2024. After applying predefined inclusion criteria, bibliographic data was extracted, and the 110 included articles were charted and thematically analysed.

Results
Of the included 110 articles, 47 studies (42.7%) did not reference CR theories, while the others (n=63, 57.3%) predominantly incorporated reasoning as a cognitive process (n=38, 34.5%); some studies incorporated reasoning as a contextually situated activity (n=23, 20.9%) and reasoning as a socially mediated activity (n=9, 8.2%). Regarding educational theories, 91 studies (82.7%) reflected elements of cognitivism and/or constructivism; no studies drew on behaviourism or connectivism, though a few showed features suggestive of the latter. The use of theory ranged from tokenism-where theories are mentioned but not meaningfully integrated-through various degrees of oversimplification or/and misinterpretation of theories, to coherence, where theoretical foundations are well-aligned with instructional design.

Conclusion
Greater theoretical literacy and reflective design practices of interventions are needed. Embracing the principles of the Scholarship of Teaching and Learning (SoLT) movement, and adopting suitable methodologies such as design-based research (DBR) may help sustain a productive cycle of theory-informed online CR educational innovation.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 9.00am

Hua Yue 1, Level 3

SHORT COMMUNICATIONS 3

Brain Neural Mechanism of Laparoscopic Cholecystectomy Based on Simulation: Difference Between Novice and Expert
Yao Xiao, China

Using ADDIE Model to Enhance Rural Healthcare Through Simulation-Based Learning: Preparing Medical Students for Maritime Emergency Medical Services in Thailand
Kanjanee Wachirarangsiman, Thailand

Communicating with Compassion: Enhancing Clinical Skills Through Standardised Patients and Individuals with Disabilities
Zhi Peng Zhang, Singapore

Culturally Tailored Internship for Nutrition International Students in Australia: A Realist Evaluation
Tammie Choi, Australia

Online vs. Offline Interprofessional Education: Impact on Collaborative Competencies
Hoang Minh, Vietnam

A Structured Method to Support Student Engagement in Peer Feedback and Self-Evaluation During Clinical Skills Assessment
Weeming Lau, Malaysia

Learning Together, Caring Together: A Pilot IPE Initiative for Medical and Nursing Students at a Rural Hospital
Sukanya Srinil, Thailand

Optimising Cognitive Load to Teach Complex Clinical Tasks: A 4C/ID-Based Entrustable Professional Activity (EPA) Training Blueprint for Nursing Students
Chee Chew Yip, Singapore

Enhancing Neurology Resident Training: A Scenario-Based Simulation Approach Using 3D-Printed Patient-Specific Models
Feng Yun, China

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

BRAIN NEURAL MECHANISM OF LAPAROSCOPIC CHOLECYSTECTOMY BASED ON SIMULATION: DIFFERENCE BETWEEN NOVICE AND EXPERT

Xiao Y

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Background and Aims
The neural mechanisms underlying skill performance in simulated laparoscopic cholecystectomy across different expertise levels remain poorly understood. Our primary aim was to investigate the brain neural mechanisms of simulated laparoscopic cholecystectomy skills using functional near-infrared spectroscopy (fNIRS).

Methods
15 surgical experts and 15 novices (residents) performed laparoscopic cholecystectomy tasks on a simulator. Task performance metrics and cortical activation data were recorded using the simulator system and fNIRS. Mann-Whitney U tests and Spearman correlation analyses were conducted to compare group differences in brain activation and functional connectivity.

Results
The expert group demonstrated superior task performance compared to the novice group ($p < 0.05$). Novices exhibited higher cortical activation during cystic duct and artery ligation compared to experts. Functional connectivity in novices was predominantly observed between the supplementary motor area (SMA) and primary motor cortex, whereas experts showed stronger connectivity involving the prefrontal cortex ($p<0.05$).

Conclusion
Distinct patterns of brain activation and connectivity were identified between expert and novice surgeons, providing neuroscientific evidence to optimise skill training and objective assessment in laparoscopic cholecystectomy.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

USING ADDIE MODEL TO ENHANCE RURAL HEALTHCARE THROUGH SIMULATION-BASED LEARNING: PREPARING MEDICAL STUDENTS FOR MARITIME EMERGENCY MEDICAL SERVICES IN THAILAND

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Background and Aims
Somdejphrajaotaksinmaharaj Hospital MEC., is dedicated to training doctors for rural healthcare. With Tak Province relying on a boat-based patient transport system, the centre plans to implement Simulation-Based Learning (SBL) for sixth-year medical students. This initiative aims to educate students on the functioning of boat ambulance in remote areas, significantly benefitting residents around Bhumibol Dam. By equipping future doctors with the necessary skills, this programme strives to enhance patient care and reduce fatalities and disabilities in underserved communities.

Methods
Mixed-methods research study involved 14 sixth-year medical students and 10 teaching team members. It gathered both quantitative and qualitative data using a questionnaire based on the ADDIE Model to develop competencies. Quantitative data assessed increases in confidence in emergency critical patient care, taught through four stations covering ATLS, ACLS, Life Saving Procedures, and Initial Assessment for Boat Ambulance Systems. Qualitative data included in-depth interviews with students and focus group discussions with instructors.

The summary of results is as indicated.

Results
The average scores from the confidence questionnaire assessing self-perceived competence in emergency patient care were as follows: ATLS scored 4.8 (± 0.4), ACLS scored 4.5 (± 0.6), Life Saving Procedures also scored 4.5 (± 0.6), and Initial Assessment to Boat Ambulance Systems scored 4.3 (± 0.5). In-depth interviews with four sixth-year medical students revealed that competencies gained through simulation were applicable in real-world scenarios. Focus group discussions highlighted the importance of active learning in enhancing engagement in emergency and wilderness medicine, underscoring the significance of these skills in remote areas.

Conclusion
Simulation-Based Learning equips medical students with essential competencies for practicing in resource-limited rural areas, particularly in emergency critical patient care. Utilising the ADDIE Model can enhance educational outcomes. Curriculum revisions should focus on Maritime Emergency Medical Services, provide practical training aboard vessels to prepare students for diverse clinical challenges effectively. The ongoing implementation of programme is crucial for enhancing emergency medicine skills outside hospital settings and providing critical care in remote areas. SBL for medical students prior to graduation fosters the development of competencies essential for becoming knowledgeable physicians, ultimately enabling them to deliver safe and effective patient care.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

COMMUNICATING WITH COMPASSION: ENHANCING CLINICAL SKILLS THROUGH STANDARDISED PATIENTS AND INDIVIDUALS WITH DISABILITIES

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Background and Aims
Effective patient communication is central to high-quality healthcare. In a busy primary healthcare setting, the importance of patient-centred communication is often overlooked. Learners typically receive limited training and exposure to challenging communication scenarios in real-life practice, particularly in communicating effectively and respectfully with patients who have disabilities. The learners, with limited prior experience, may also be unaware of inappropriate communication responses and behaviour towards these patients.

This workshop aims to enhance inclusive communication skills among family medicine resident trainees by combining encounters with standardised patients in various clinical scenarios, with an additional focus on interacting with real patients living with hearing impairment.

The goal is to foster empathy and patient-centred communication skills that are transferable to real-world clinical settings.

Methods
An interactive, small-group workshop was designed for family medicine residency trainees. The workshop begins with a faculty-led presentation that targets essential aspects of verbal and nonverbal communication, as well as common communication pitfalls.

These are then put into practice through the incorporation of simulation-based learning, which involves interactions with trained standardised patients (SPs) who portray patients in various challenging communication scenarios, as well as direct engagement with individuals living with hearing impairment.

At the end of each simulation, learners have the opportunity to engage in a guided discussion with a facilitator and the standardised patient to reflect on their experience and learning and address various frameworks behind practical communication skills.

Results
Feedback from the workshop session indicates positive learning outcomes. Learners reported increased confidence in navigating unfamiliar communication scenarios and communicating with challenging patients, including those with hearing impairment.

They also reflected a greater awareness of specific areas of their communication skills that they can improve. They have learned to utilise various communication frameworks discussed during the simulations to effectively approach and engage patients in specific, challenging, and everyday clinical scenarios.

Participants, in particular, highlighted their appreciation for the opportunity to interact directly with and learn from patients with disabilities, which added depth and realism to the clinical scenarios.

Conclusion
This workshop offers a targeted and practical approach to equipping family medicine residents with the communication skills necessary to deliver inclusive, patient-centred care, particularly in the time-pressured primary care environment.

By integrating standardised patient scenarios that portray challenging real-life encounters, including those involving real patients living with disabilities, residents learn to engage patients meaningfully, build effective rapport, and navigate complex patient needs without compromising empathy or respect.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

CULTURALLY TAILORED INTERNSHIP FOR NUTRITION INTERNATIONAL STUDENTS IN AUSTRALIA: A REALIST EVALUATION

Choi T

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Background and Aims
Asian learners from Confucian-heritage classroom often find Australian mode of teaching foreign and misaligned with their cultural step-wise process of learning. As a result, they could present to be quiet, passive and reluctant to participate in Australian classrooms. A five-weeks culturally-tailored on-campus internship programme was developed and piloted with international students in a university nutrition programmes to support acculturation. Programme design was underpinned by Confucian cultural process of learning with incorporation of culturally-specific strategies to promote peer interactions and learning. A total of 76 nutrition and dietetics students of Asian backgrounds and across five year-levels participated in the internship programme, and involved in active and collective problem-solving nutrition issues. After three programmes, the internship programme was evaluated qualitatively.

Methods
A realist evaluation of 17 interviews with student-participants was employed to build and refine the Context-Mechanism-Outcome configurations (CMOs). A socio-cultural perspective on learning was adopted, and ethnographic methods, including interviews and facilitator-reflection, were used.

Results
The internship created a psychologically safe classroom for international students to contribute and participate in discussions, speak publicly and take on leadership roles, building self-confidence and skills for active learning. Working together towards a shared purpose for the internship projects aligned with Asian culture of collectivism and pragmatism. It facilitated a culture of family-like support with senior students' role modelling professional behaviours and providing sibling-like caring relationships that extended beyond the programme. Finally sharing cultural knowledge and acculturation tips with one another was empowering and promoted cross-cultural communication.

Conclusion
While universities have international student support services to promote acculturation to Australian learning environment and enhance learning experience, a culturally tailored approach may be necessary. An international-students-specific internship programme could facilitate development of active learning and communication skills, and a sense of belonging for those learning in a foreign land.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ONLINE VS. OFFLINE INTERPROFESSIONAL EDUCATION: IMPACT ON COLLABORATIVE COMPETENCIES

Minh H

Centre for Medical Education, University of Medicine and Pharmacy at Ho Chi Minh City, Vietnam

Background and Aims
Effective interprofessional collaboration is essential for patient-centred care, yet evidence on how delivery modality influences the development of collaborative competencies in low- and middle-income settings remains limited. This retrospective study asked whether an online interprofessional education (IPE) course could achieve improvements in communication and teamwork comparable with its established face-to-face version, thereby informing flexible approaches that foster harmony in diversity across health-professions curricula.

Methods
A retrospective comparative cohort study analysed two successive cohorts of undergraduate health-professions students who completed an identical eight-session IPE module in 2020-2021 (offline; n = 760) and 2021-2022 (online; n = 841). Each cohort included medicine, nursing, pharmacy and physiotherapy students (seven to eight learners per mixed-discipline group) guided by the same faculty and learning objectives; only the delivery platform differed (in-person versus Microsoft Teams with breakout rooms). Communication and teamwork were measured at three time-points with the validated Interprofessional Collaborator Assessment Rubric. Paired ICAR scores were compared with Wilcoxon signed-rank tests (Bonferroni-adjusted), and rank-biserial effect sizes (ES) were calculated. Ethics approval was granted by the university IRB.

Results
Both delivery modes yielded statistically significant gains in communication and teamwork (all $p < 0.01$). For communication, the offline cohort achieved an effect size of 0.36 (95 % CI 0.34-0.38), whereas the online cohort reached 0.30 (0.28-0.32). Teamwork followed a similar pattern, with effect sizes of 0.36 (0.34-0.38) offline and 0.27 (0.25-0.29) online. Discipline-specific analysis revealed that physiotherapy students recorded the largest online improvement in communication, while nursing students showed the strongest offline gains across both domains. Data completeness was high, with fewer than 3% of ICAR entries missing. Qualitative feedback from the online cohort highlighted greater scheduling flexibility, heightened interprofessional awareness, and increased confidence when engaging with other disciplines.

Conclusion
A well-structured online IPE course can produce substantial, statistically significant gains in communication and teamwork, approaching-though not completely matching-the effect sizes achieved in face-to-face settings. When on-campus teaching is impractical because of public-health restrictions or geographic barriers, the online modality offers a feasible and resource-efficient alternative that preserves key learning outcomes. Incorporating both delivery formats within health-professions curricula enhances flexibility, strengthens educational resilience, and broadens equitable access to interprofessional learning without compromising effectiveness.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

A STRUCTURED METHOD TO SUPPORT STUDENT ENGAGEMENT IN PEER FEEDBACK AND SELF-EVALUATION DURING CLINICAL SKILLS ASSESSMENT

***Lau W*, Tha KK, Mak Pee KX**

Medicine and Health Sciences, Jeffrey Cheah School of Medicine and Health Sciences, Monash University Malaysia, Malaysia

Background and Aims

Our undergraduate medical students take a summative clinical skills assessment in "Giving an Explanation". Previously, each student submits a 200 - 400 word written reflection (Gibbs' reflective cycle) at the completion of the explanation task. Due to the free text nature of this assignment, there is a risk of students using GenAI tools to complete the task. In order to overcome this, we created a different assessment approach with the following learning outcomes:

1. Identify the ethical, professional and personal responsibilities and behaviours consistent with good clinical practice and professional codes of practice
2. Communicate effectively and appropriately with others
3. Use principles for effectively communicating medical information to patients in simulated settings
4. Demonstrate ability of self-assessment
5. Show evidence of deep engagement in the learning process
6. Identify, develop and use approaches to meet academic and personal challenges and needs

We evaluated this innovative assessment approach from the tutors' perspectives.

Methods

All students completed three different activities weekly on "how to give an explanation" in small tutorial groups. In the first, they were taught the Calgary-Cambridge guide communication process skills in giving an explanation. One student roleplay as a simulated patient (SP) seeking the information, and another was the medical student providing the explanation. This was done face-to-face in class. Feedback was provided to the medical student by the SP, peers and tutor using a marking rubric. In the second week, students used the same format but were given more complex topics. In the third week, all students had a summative task in class where one student was the medical student and another the SP (not from the same tutorial group). The activities were invigilated by the nine tutors. The SP was also the assessor who completed the assessment in the Pebblepad platform. The explanation task took 12-minutes and included a 13-minutes feedback activity (verbal and written peer feedback, back-feedback), self- evaluation and written action plan. These were immediately submitted on PebblePad.

Results

All 153 students and nine tutors participated in this assessment. Tutors felt that the approach was efficient and all students managed to complete the tasks as instructed. Students gained insight as an examiner in a summative task, in addition to self-evaluation of an assessment. However, some tutors felt that it would have been better if external SP were present to ensure authenticity of the activity since this would have avoided the possible use of medical jargons. Others noted that not all students followed the principles such as providing information in small chunks, as they were focused on the time constraints.

Conclusion

This was an innovative approach to enhance students' engagement in clinical skills assessment. It would be important to obtain students' perspectives on this assessment activity.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

LEARNING TOGETHER, CARING TOGETHER: A PILOT IPE INITIATIVE FOR MEDICAL AND NURSING STUDENTS AT A RURAL HOSPITAL

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Background and Aims
Patient safety is a key goal in healthcare, supported by strategies aimed at reducing errors and preventing harm. Human error can result from ineffective teamwork, collaboration, and communication in clinical practice. Hierarchical attitudes among healthcare professionals can further strain relationships, cause conflict, and compromise patient care.

Introducing interprofessional education (IPE) at the undergraduate level can foster collaboration and improve patient outcomes. IPE activities vary by institution and should be workplace-based and context-specific. Key factors influencing IPE success include student engagement, faculty competence, and organisational support.

Research on IPE in clinical settings in Thailand is limited. Khon Kaen Hospital, part of a government collaborative project to increase rural doctors, currently lacks IPE in clinical training. This study aims to explore educators' and students' attitudes toward establishing and implementing an IPE curriculum through a pilot project. The findings will inform the development of a context-specific IPE curriculum tailored to the hospital's clinical environment.

Methods
An exploratory qualitative research design was employed for the pilot IPE project, involving final-year medical students, third-year nursing students, and two educators-one from each profession-based in the Department of Obstetrics and Gynaecology. The initial IPE session was held as a one-hour extracurricular activity. The session began with an overview of its objectives, followed by open-ended questions designed to elicit students' understanding and perspectives on IPE, and a scenario-based case discussion.

After the session, educators reinforced the concept of IPE and encouraged students to integrate its principles into their future professional practice. Data collection employed a triangulation approach, incorporating educator observation notes, group discussions, and document analysis. The documents included feedback from educators and students, accompanied by students' self-reflections. The collected data was analysed through a process of interpretation and coding, aimed at identifying patterns, similarities, and differences across participants, and used to construct analytical themes and structures.

Results
Fourteen students-nine medical and five nursing-participated in the pilot IPE class and were divided into two groups. Although medical students appeared to be more dominant during discussions, feedback and self-reflections from both groups indicated a positive impact of the IPE experience on their professional development. Students reported gaining an understanding of the roles and responsibilities of each profession and expressed increased mutual respect. They also noted that IPE could strengthen teamwork in patient care, enhance interprofessional communication, and promote a more collaborative work environment.

Overall, students appreciated the IPE class and supported its integration into the undergraduate curriculum. However, concerns were raised regarding the suitability of the activity content, duration, and the mismatch in experience levels between participants.

Conclusion
The pilot IPE session helped introduce medical and nursing students to collaborative learning and working practices essential for improving patient care. In the absence of an existing IPE programme at the institution, the feedback from class educators, accompanied by student feedback and reflections,

provides foundational insights for stakeholders to develop an effective clinical IPE curriculum-particularly relevant for preparing future healthcare professionals in rural hospital settings.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

OPTIMISING COGNITIVE LOAD TO TEACH COMPLEX CLINICAL TASKS: A 4C/ID-BASED ENTRUSTABLE PROFESSIONAL ACTIVITY (EPA) TRAINING BLUEPRINT FOR NURSING STUDENTS

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Background and Aims
Traditional competency-based nursing education often fragments clinical learning into isolated procedural tasks, hindering students' ability to integrate knowledge and transfer it effectively to complex clinical settings. At a tertiary acute care hospital in Singapore, faculty and clinical supervisors noted persistent challenges among nursing diploma students in clinical reasoning, skill integration, learning transfer, and care coordination. These deficiencies impacted their readiness to perform the Entrustable Professional Activity (EPA) of "Providing nursing care to a ward patient". Additionally, cognitive overload and poorly sequenced learning tasks further impeded performance. To address these challenges, a training blueprint was developed using the Four-Component Instructional Design (4C/ID) model. This model, underpinned by the cognitive load theory, was employed to design instruction that simultaneously promotes whole-task learning and optimises cognitive load, aiming to support the development of clinical competence and facilitate knowledge and skill transfer.

Methods
The blueprint was developed through cognitive task analysis, guided by the APIE (Assessment, Planning, Implementation, Evaluation) framework. The EPA was deconstructed into five skill clusters, each comprising constituent skills with observable performance criteria. An action research approach informed iterative blueprint refinement through stakeholder and faculty input. The training was implemented for 110 nursing diploma students during their clinical practicum. To evaluate students' cognitive load (CL), a validated 10-item CL Questionnaire was administered, measuring intrinsic, extraneous, and germane loads on a 10-point scale (1 = very low effort; 10 = very high effort). Questionnaire validation involved a review by 10 consultant ophthalmologists (4 internal, 6 external), who rated each item's relevance using a 4-point Likert scale. Content validity was assessed via the Content Validity Index (CVI), and internal reliability through McDonald's Omega (ω).

Results
The training blueprint operationalised the 4C/ID model through four components. (1) Learning tasks included whole-task scenarios of escalating complexity, such as managing surgical patients with increasing comorbidities. (2) Supportive information comprised clinical reasoning strategies and conceptual models (e.g., pathophysiology of haemorrhage) to support non-recurrent performance. (3) Procedural information was provided just-in-time for recurrent tasks like wound care. (4) Part-task practice enabled automation of routine sub-skills such as vital sign monitoring. Instructional strategies like forward snowballing and scaffolding allowed learners to incrementally manage task complexity while reducing reliance on supervision.

Questionnaire validation showed item-level CVI>0.9, scale-level CVI≥0.8 (unanimous) and ≥ 0.9 (average), and ω>0.8 across all subscales, indicating strong validity and reliability. Cognitive load findings revealed balanced intrinsic load (median=5.0, Inter-Quartile Range [IQR]=3.0), low extraneous load (median=3.0, IQR=3.0), and high germane load (median=7.0, IQR = 2.0), supporting meaningful schema construction and deep learning. These findings indicate that the instructional design aligned task complexity with learner cognitive capacity and minimised unnecessary cognitive demands while promoting meaningful schema construction and learning transfer.

Conclusion
This study demonstrates that a 4C/ID-based blueprint can effectively teach a complex EPA by promoting whole-task learning and optimising cognitive load. Despite time and faculty training constraints, the programme proved feasible and educationally valuable, with strong potential for broader implementation in EPA-based health professions training.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ENHANCING NEUROLOGY RESIDENT TRAINING: A SCENARIO-BASED SIMULATION APPROACH USING 3D-PRINTED PATIENT-SPECIFIC MODELS

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Background and Aims
Neurology resident training faces challenges due to complex neurovascular anatomy, high-risk procedures, and limited practical exposure. Traditional 2D teaching methods often fail to convey essential spatial relationships. While 3D-printed models have shown promise in surgery, their application in neurology education remains underexplored. This study aimed to evaluate a novel scenario-based simulation programme utilising 3D-printed patient-specific models to improve residents' anatomical understanding, diagnostic skills, and clinical confidence.

Methods
60 neurology/internal medicine residents undergoing standardised training at the Second Affiliated Hospital of Zhejiang University School of Medicine (2023/2024) were randomly assigned to an experimental group (n=30) or a control group (n=30). Based on a classic cerebral artery stenosis case, a complex 3D model of cerebral vessels was constructed using 3D printing technology for intuitive anatomical demonstration. The experimental group received scenario-based simulation training using this model alongside theoretical lectures. The control group underwent traditional teaching involving theoretical lectures, clinical case analysis, and CT/MRI interpretation. Both groups completed a post-training theoretical evaluation (assessing cerebral vessel anatomy knowledge and disease imaging interpretation) and a self-developed teaching satisfaction questionnaire. The questionnaire, employing a Likert 5-point scale (1=very dissatisfied, 5=very satisfied), assessed learning interest, autonomous learning ability, perceived learning effect, and overall course satisfaction. Statistical analysis utilised independent samples t-tests.

Results
Residents in the 3D simulation group achieved significantly higher theoretical test scores compared to the control group (mean ± SD: 85.67 ± 6.34 vs. 76.89 ± 7.12; $P < 0.05$). Furthermore, learner satisfaction was markedly higher in the simulation group across all measured domains: learning interest, autonomous learning ability, self-perceived competence, and overall satisfaction (all $P < 0.05$).

Conclusion
Integrating 3D-printed patient-specific models into scenario-based simulation significantly enhances neurology residents' anatomical understanding, competence, and engagement. Our findings demonstrate the efficacy of this approach and support its adoption into structured neurology curricula. This method provides an expandable solution to bridge the gap between theoretical knowledge and diagnostic skill development, ultimately contributing to improved quality and safety in neurovascular care.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 9.00am

Hua Yue 2, Level 3

SHORT COMMUNICATIONS 4

Comparing the Perception and Performance of Novice and Expert Anaesthesiologists with Virtual Reality-Based Procedural Training
Fei Chen, United States of America

Becoming the First: Exploring Student Voices on Choosing A Novel Major in Vietnam-Speech and Language Therapy
Thi Thanh Tinh Tran, Vietnam

Evaluation of the Internal Medicine Supportive and Palliative Care Program for Senior Residents
Liling Natalie Woong, Singapore

Application of Case-Based Learning Combined with Scenario Simulation in the Operating Room Practice Teaching for Surgical Graduate Students: A Pilot Study
Yang Xiao, China

The Effect of Palliative Care Clinical Rotation on Knowledge and Attitudes of Sixth Year Medical Students: A Pilot Study
Bussaya Santisan, Thailand

Development and Applications of Graduate Outcome-Based Curriculum for Basic Medical Education
Guang Chen, China

Anatomy Workshop for Urogynecologist and Pelvic Surgeons: Bridging Basic Anatomy with Surgical Application
Jayabharathi Krishnan, Singapore

Improving Blood Culture Collection in the Emergency Department: A Targeted Education Initiative
Geraldine Leong, Singapore

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

COMPARING THE PERCEPTION AND PERFORMANCE OF NOVICE AND EXPERT ANESTHESIOLOGISTS WITH VIRTUAL REALITY-BASED PROCEDURAL TRAINING

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Background and Aims
Virtual reality (VR)-based procedural training has emerged in medical education as a promising tool for enhancing clinical skills development through immersive, flexible, and low-stakes training environments. Although prior studies support its effectiveness among novice learners, the experiences and perceptions of expert learners remain underexplored. This knowledge gap may hinder the development of VR programmes that effectively support learners across training levels. This study aimed to compare the perceptions and performance of novice learners (e.g., interns and clinical anaesthesiology year one [CA-1] residents) with those of expert learners (CA-2 and CA-3 residents, fellows, and attendings of less than two years' experience) to better understand the utility of VR-based procedural training.

Methods
The study included 30 novice learners and 23 expert learners from three US anaesthesiology residency programmes. Participants completed two anaesthesia procedure modules using the Vantari VR platform, with randomised procedure order to mitigate sequencing bias. The selected modules were central venous catheter (CVC) and trauma chest drain (CT) to reflect differing experience levels. Expert anaesthesiologists were expected to be proficient in CVC placement, whereas both groups were expected to have minimal experience with CT placement. Participants completed pre- and post-surveys assessing perception metrics including task load, spatial presence, motion sickness, and perceived usefulness of the VR-based training. In addition to the perception survey data, preliminary analysis comparing the novice (N=15) and expert (N=17) performance (i.e., time duration, number of failed steps) on the two VR modules from one institution were compared. Between-group comparisons were conducted using two-sample t-tests, Wilcoxon rank-sum tests and Chi-squared tests in R software.

Results
Both novice and expert learners perceived the VR modules to be useful for learning procedural skills. For the CVC module, 85.7% of expert learners and 83.3% of novice learners agreed or strongly agreed that the module was useful. For the CT module, 81.8% of expert learners and 84.6% of novice learners reported the same. These differences were not statistically significant (CVC p-value=0.228; CT p-value=0.627). The average task load score did not significantly differ between groups for the CVC module (p-value=0.917). However, expert learners completing the CT module reported significantly higher task load scores than novice learners (p-value=0.045). All other perception-related metrics revealed no statistically significant difference between groups. As to performance metrics, there were no significant differences between groups in procedure completion time (CVC p-value=0.835; CT p-value=0.152) or in the number of failed procedural steps (CVC p-value=0.972; CT p-value=0.718).

Conclusion
Our findings support the feasibility and acceptability of VR-based procedural training for both novice and expert learners, demonstrating high perceived usefulness, comparable completion time, and minimal failure rates across groups. Aside from higher CT task load among expert learners, the absence of significant differences in performance and perception metrics suggests that VR modules may offer a standardised approach to procedural training across varying training levels. The findings of this study provide guidance for future training curricula and contribute to the optimisation of procedural proficiency and patient safety.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

BECOMING THE FIRST: EXPLORING STUDENT VOICES ON CHOOSING A NOVEL MAJOR IN VIETNAM-SPEECH AND LANGUAGE THERAPY

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Background and Aims
Speech and Language Therapy (SLT) plays a critical role in supporting individuals with communication and swallowing difficulties. While the field is well-established in developed countries, SLT remains a nascent discipline in Vietnam, where workforce development is limited. Educational opportunities in SLT have only recently emerged. Student enrolment in SLT remains low compared to other majors, raising concerns about the sustainability of this emerging field. Major decision-making is a complex process shaped by individual interests, abilities, family and social influences, and environmental factors. While studies in other contexts have explored motivations for pursuing SLT, little is known about the determinants influencing students' choice of SLT as a major in Vietnam. This study addresses this gap by exploring the determinants influencing students' decisions to choose SLT as their undergraduate major at the University of Medicine and Pharmacy at Ho Chi Minh City (UMP), Vietnam.

Methods
The phenomenological approach was applied using Focus group discussions with 39 SLT-major students of years one, two and three at UMP. Students were divided into five groups. Data was collected between September 2024 and February 2025. Thematic analysis was conducted by researchers with limited support of the MAXQDA 24 software to derive key influencing factors.

Results
Five thematic domains emerged as influencing factors:

(1) Personal-disciplinary fit: Students perceived SLT to align with their academic strengths and learning preferences.
(2) Personal-vocational fit: Preferences for cognitive rather than physical tasks, affinity for working with children, and non-shift-based clinical roles influenced their choice.
(3) Personal-institutional fit: The reputation, location, and familial proximity of UMP contributed to the decision-making process.
(4) Outcome expectations: Anticipated professional advantages, such as employability, future income, and opportunities for further study were central.
(5) Environmental influences: Family traditions, peer influence, and faculty mentorship played significant roles.

Conclusion
This study highlighted five interconnected factors influencing students' decisions to choose SLT: Personal-Disciplinary Fit, Personal-Vocational Fit, Personal-Institutional Fit, Outcome Expectations, and Environmental Influences. Among these, outcome expectations emerged as the most decisive factor, while environmental influences acted as a background influence across all other factors. The findings contribute to the understanding of SLT major decision-making in the context of Vietnam. Future studies should be conducted to explore the perspectives of SLT graduates to provide insights into the sustainability of their decision.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EVALUATION OF THE INTERNAL MEDICINE SUPPORTIVE AND PALLIATIVE CARE PROGRAMME FOR SENIOR RESIDENTS

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Background and Aims

The Advanced Internal Medicine Senior Residency (AIM-SR) Programme is a postgraduate training programme for senior residents to become Internal Medicine specialists. As Singapore faces an ageing population, palliative care (PC), which aims to improve the quality of life for people and families facing life-threatening illnesses, is recognised as a growing need. In the national AIM-SR curriculum, one of the required Entrustable Professional Activities focuses on the senior resident's ability to manage patients with PC needs. An Internal Medicine Supportive and Palliative Care Services (IM-SPCS) posting has been designed to teach senior residents how to apply a holistic PC approach and work in an interprofessional team. The one-month programme is based on the biopsychosocial model, which recognises the biomedical, psychological and social aspects of illness. The hospital-based components of the posting are inpatient PC consult service, outpatient PC clinics, renal supportive care, medical social services, advance care planning and music therapy. An attachment with a community PC provider was later added which enabled senior residents to observe inpatient hospice, home hospice and day hospice services. Finally, senior residents engaged in a reflective practice session, guided by a senior medical social worker, about their experiences in providing PC and the personal impact of witnessing patients' suffering. This study aims to describe the educational impact of the IM-SPCS posting.

Methods

The programme is evaluated through feedback surveys completed by the senior residents on concluding the posting. The survey is designed according to the first level of Kirkpatrick's evaluation model, which measures participants' reactions towards the programme. The survey consisted of eight statements with a 5-point scale response to measure agreement and four questions designed for narrative feedback. The quantitative survey questions were analysed using descriptive statistics with proportions. Qualitative data was analysed using thematic analysis.

Results

A total of 15 survey responses were recorded. All residents strongly agreed or agreed that the posting contributed to their learning, had clear learning objectives, adequate reading materials, adequate variety of cases, adequate teaching opportunities and supervision from faculty, and effective faculty teaching. 14 residents (93%) strongly agreed or agreed recommending the posting to other senior residents, with one respondent strongly disagreeing.

Thematic analysis of the qualitative responses showed that senior residents felt they had improved their knowledge of PC approach, hospital PC services, community PC services particularly home hospice services, managing prognostic uncertainty especially for non-cancer, and were more confident in managing compassionate discharge for imminently dying patients. They also reported an appreciation for interprofessional work and roles of allied health practitioners.

Conclusion

Overall, the IM-SPCS posting showed positive initial educational impact, with senior residents reporting high satisfaction levels with the programme, corroborated with the qualitative feedback showing improved knowledge about PC approach, principles and services, and an appreciation for interprofessional collaborative work. Future evaluation design could include the other three levels of Kirkpatrick's evaluation model – assessing learning, observing learner behaviour changes and determining longer term impact in learners' clinical practice.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

APPLICATION OF CASE-BASED LEARNING COMBINED WITH SCENARIO SIMULATION IN THE OPERATING ROOM PRACTICE TEACHING FOR SURGICAL GRADUATE STUDENTS: A PILOT STUDY

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Background and Aims
The Case-Based Learning (CBL) combined with scenario simulation represents an innovative medical and surgical education approach aimed at bridging the gap between theoretical knowledge and practical, real-world application. It is increasingly recognised as a powerful strategy in surgical education, aiming to improve patient safety and outcomes by preparing future surgeons with the skills and confidence needed for the operating room.

Methods
Thirty surgical graduate students were randomly divided into a study group (group CS) and a control group (group T), with 15 students in each. The group CS received training using CBL combined with scenario simulation, while the group T underwent traditional teaching methods. Post-teaching, the training outcomes, clinical thinking abilities, and overall competencies of both groups were compared. A survey was used to assess teaching satisfaction and learning confidence. The effectiveness of the two instructional methods and the benefits to the surgical graduate students were evaluated based on teaching satisfaction and learning confidence.

Results
There were no significant differences in baseline data between the two groups ($P>0.05$). The group CS scored higher in theoretical exams (93.5±3.9 vs 89.3±4.3, $P<0.05$) and practical skills (93.7±3.3 vs 86.4±4.2, $P<0.05$) than the group T after training. The Mini-Clinical Evaluation Exercise (Mini-CEX) scores in the group CS also surpassed those of the group T (55.7±4.6 vs 50.6±2.8, $P<0.05$). Additionally, teaching satisfaction (42.6±3.5 vs 36.1±4.4, $P<0.001$) and learning confidence scores (43.9±2.9 vs 34.2±4.8, $P<0.001$) were higher in the group CS ($P<0.05$). The CBL combined with the scenario simulation training model demonstrated better teaching effectiveness and provided greater benefits to students ($P<0.05$).

Conclusion
The use of CBL combined with scenario simulation in the operating room practice of surgical graduate students yields superior training outcomes. It not only enhances clinical thinking abilities and overall competencies, but also boosts teaching satisfaction and learning confidence among surgical graduate students.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE EFFECT OF PALLIATIVE CARE CLINICAL ROTATION ON KNOWLEDGE AND ATTITUDES OF SIXTH YEAR MEDICAL STUDENTS: A PILOT STUDY

Santisan B

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Background and Aims
Palliative care education has become increasingly crucial in medical curriculum worldwide, as it prepares future physicians to handle end-of-life care competently and compassionately. Research shows that while medical students often begin with positive attitudes toward palliative care, these attitudes may fluctuate during training. Clinical exposure has demonstrated significant benefits in improving students' understanding and approach to end-of-life care.

Methods
This quasi-experimental study employed a one-group pre-test-post-test design with 24 sixth-year medical students at Vachira Phuket Hospital. The one-week rotation assessment measured five key domains: clinical knowledge, ward experience, psychological impact, palliative care competency, and ethical considerations. Students participated in clinical practice while maintaining daily activity logs and case studies. Assessment tools included pre and post-rotation knowledge tests, attitude evaluations, and competency measurements.

Results
Significant improvements were observed across multiple domains:

- Clinical competencies: History taking and examination increased from 3.17 to 4.00; communication skills improved from 3.29 to 4.13
- Palliative care understanding: Principles comprehension rose from 2.96 to 4.08
- Interprofessional abilities: Teamwork capabilities enhanced from 2.96 to 4.17
- Ethical and humanistic aspects: Empathy scores increased from 3.58 to 4.21; confidentiality management improved from 3.83 to 4.29
- Stress management: While stress levels decreased (3.25 to 3.04), coping abilities improved from 3.33 to 3.71

The rotation demonstrated significant effectiveness in enhancing both technical and humanistic aspects of medical education. The improvement in interprofessional teamwork and ethical understanding was particularly notable. The decrease in stress levels coupled with improved coping abilities suggests that increased competence contributes to better emotional regulation.

Conclusion
The one-week rotation significantly improved students' competencies across all domains, with palliative care-specific skills showing 41% improvement. Students demonstrated remarkable growth in humanistic aspects of care, with post-rotation scores exceeding 4.20 in empathy and communication skills. These findings support the value of incorporating dedicated palliative care rotations in medical education curricula.

Implementation should facilitate medical students' progression through direct patient engagement, interprofessional team exposure, daily case-based learning, and supervised reflective practice to enhance both clinical competency and humanistic care aspects.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

DEVELOPMENT AND APPLICATIONS OF GRADUATE OUTCOME-BASED CURRICULUM FOR BASIC MEDICAL EDUCATION

Chen G

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Background and Aims
Outcome-based education (OBE) leads to revolutionary change in medical education, but each medical school is acknowledged to develop suited framework based on specific positioning, educational philosophy and expected outcomes.

Methods
Based on the graduate outcomes of basic medical education in China released by Working Committee for the Accreditation of Medical Education (WCAME) which officially recognised by World Federation for Medical Education (WFME), Taizhou University re-documented the overall organisation of the curriculum and classified the courses as “Crucial, Supporting and Associated (CSA)” categories to connect the graduate outcomes and course objectives.

Results
We redefined the standard for graduates in Taizhou University Medical School including 34 items in four domains and redesigned the curriculum with 76 courses classified as CSA. Empirical data reveals a substantial improvement in students’ performance on Standardised Competence Test for Clinical Medicine Undergraduates in China (SCTCMU) by implementing the CSA system between 2022 and 2023. Notably, in 2023, Taizhou University’s students achieved pass rates more than 20 percentage points higher than the national average, demonstrating a profound and unprecedented impact.

Conclusion
The CSA classification system provides a notably clear and structured framework for categorising courses based on their direct or indirect relevance to educational objectives, which provides clarity to educators and empowers students with a more purposeful approach to their studies.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ANATOMY WORKSHOP FOR UROGYNECOLOGIST AND PELVIC SURGEONS: BRIDGING BASIC ANATOMY WITH SURGICAL APPLICATION

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Background and Aims
A sound understanding of pelvic anatomy is essential for safe and effective pelvic surgery. Recognising the anatomical complexity and variability, we designed a hands-on Basic and Applied Anatomy Workshop targeting urogynecologists and pelvic surgeons at the 49th International Urogynaecology Association (IUGA) Annual Meeting held in Singapore. The aim was to bridge foundational anatomical knowledge with surgical application using prosected specimens, plastinated models, and structured didactic lectures.

Methods
A half-day cadaver-based workshop was conducted with 20 participants, primarily urogynecologist and residents from multiple countries. The teaching faculty included four anatomists and three urogynecologists. The workshop structure consisted of a 35-minutes introductory lecture on pelvic anatomy, a 10-minutes pre-workshop basic anatomy quiz (20 MCQs), a 30-minutes applied clinical anatomy lecture, and a pre-workshop clinical anatomy quiz (15 MCQs). This was followed by a two-hours hands-on practical session across 6-8 stations featuring pelvic bones, plastinated specimens, and prosected cadaveric specimens. The same quizzes were administered post-workshop to evaluate learning gains.

Results
For the basic anatomy component, a student's t-test revealed a statistically significant improvement in scores ($p<0.001$), with a large effect size (Cohen's $d=1.26$). For the applied clinical anatomy component, the Wilcoxon signed-rank test demonstrated a statistically significant improvement in scores ($p=0.04$), with a moderate effect size.

Conclusion
The integration of structured lectures and cadaveric teaching significantly improved participants' knowledge of both basic and applied pelvic anatomy. The basic anatomy component showed a stronger impact, suggesting substantial learning gain and group cohesion. Contributing factors included a favourable teacher-to-student ratio and the use of high-quality, well-dissected wet specimens, which enhanced participant engagement and spatial understanding of complex pelvic structures. Future workshops may further optimise learning by incorporating team-based discussions and longitudinal follow-up assessments. This educational model may be scalable and transferable to other surgical specialties where the integration of cadaveric and applied anatomy is essential for enhancing procedural knowledge and surgical competency.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

IMPROVING BLOOD CULTURE COLLECTION IN THE EMERGENCY DEPARTMENT: A TARGETED EDUCATION INITIATIVE

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Background and Aims

Blood cultures (BCs) are critical for diagnosing bloodstream infections and guiding treatment for patients. In 2024, our Emergency Department (ED) saw BC contamination rates rise from a five-year average of 1.6% to 2.6%. The average fill volume per bottle also dropped to 2.5 mL – well below the recommended 8-10 mL.

Although our contamination rates remained below international benchmarks, these deviations reduced diagnostic yield, increased laboratory cost and workload, and risked delays in patient care. We hypothesized that knowledge gaps and workplace culture–not skill or intent–were driving these trends. To support sustainable practice change, we sought to understand staff knowledge, attitudes, and behaviours (KAB) around BC collection to better design tailored educational interventions.

Methods

A multidisciplinary team from ED, Microbiology, and Infectious Diseases led this quality improvement initiative using a two-phase approach.

Firstly, ED staff involved in BC collection were invited to complete a structured KAB survey exploring their knowledge, attitudes, practices and perceived barriers.

Based on survey findings, low-cost, integrated, targeted educational strategies were implemented. They include - microlearning and teaching during meetings and shifts; posters reinforcing correct technique and fill volumes; fill-level reminders with BC bottles; improved access to sterile BC collection sets and peer coaching and real-time feedback during clinical care.

These educational interventions were designed to be embedded in everyday practice, rather than relying solely on formal training.

Results

The survey achieved a 70% response rate. Key insights included the following: 73.2% rarely used sterile collection sets and only 42.6% routinely disinfected BC bottle tops. While 57.2% of respondents knew the recommended fill volume was ≥6 mL, most reported collecting just 3-5 mL. Interestingly, self-reported average fill volume was 4 mL, yet audit data showed a true average of only 2.5 mL- highlighting a disconnect between perception and practice.

Common barriers included time pressure, difficult venous access, and uncertainty about blood volume drawn.

The educational interventions were well received. Staff reported increased awareness of contamination risks and proper fill volumes. Visual aids and peer prompts were particularly effective in promoting behavioural change.

Conclusion

This project highlights how targeted, data-driven education–shaped by local insights–can drive meaningful improvements in clinical practice. To truly change practice, education must address behaviour, workflow, and culture-not just knowledge. Embedding education into daily workflows and leveraging visual cues and peer support helped foster change. Ongoing audits will evaluate long-term impact and sustainability, with the goal of aligning with international best practices.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 9.00am

Paris Hall & Rome Hall, L5

SHORT COMMUNICATIONS 5

Faculty Members' Perspectives of Providing Feedback and Coaching in Supporting Students' Self-Regulated Learning in Programmatic Assessment
Xian Liu, The Netherlands

Facilitating Self-Efficacy in ICU Training: A Qualitative Study of Junior Medical Residents' Learning Experiences
Shaik Muhammad Amin, Singapore

Closing the Gap: Understanding Medical Students' Views on Pathology Through an Open House Programme
Komson Wannasai, Thailand

Community-Based Interprofessional Education: A Project-Based Learning Approach
Xuan Nguyen Thi Thanh, Vietnam

Improving the Clinical Learning Environment of Medical Students – Addressing Workplace Violence During Clinical Postings
Lay Ling Tan, Singapore

Integrating and Exporting Medical Education Resources: An Integration-Intelligent-International (3I) Framework
Li Liu, China

From Potential to Practice: Medical Students' and Leaders' Perspectives on Artificial Intelligence Integration in Vietnamese Medical Education
Van Anh Nguyen, Vietnam

The Role and Innovative Practices of Science Communication Capacity Building in the Cultivation of Outstanding Medical Talents in the Digital-Intelligent Era: Taking the "Tongtong Mingmu Workshop" as an Example
Yuting Shao, China

Healthcare Students' Barriers to Seeking Mental Health Counselling: A Cross-Sectional Study in Ho Chi Minh City, Vietnam
Le Hong Huynh Truong, Vietnam

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

FACULTY MEMBERS' PERSPECTIVES OF PROVIDING FEEDBACK AND COACHING IN SUPPORTING STUDENTS' SELF-REGULATED LEARNING IN PROGRAMMEMATIC ASSESSMENT

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Background and Aims
Programmatic assessment (PA) has emerged as an effective approach in health professions education, designed to support for continuous and longitudinal professional development. Feedback and coaching are theoretically critical components of PA and SRL, but their practical implementation remains challenging, and the mechanisms are not well understood. This study addressed the following research question: How do feedback providers and coaches perceive their support for students' SRL in PA?

Methods
A qualitative constructivist paradigm was employed. 17 faculty members participated in five semi-structured focus group interviews.

Results
The analysis revealed four key themes: (1) Feedback providers find it easier to provide feedback on task level than to give suggestions for further developing competencies; (2) Feedback providers feel challenged to offer individualised feedback when students can choose personalised learning paths; (3) Coaches view their primary roles as fostering students' reflection and autonomy, and will adapt their support to students' needs when necessary; (4) Coaches feel a tension between stimulating autonomy and fulfilling graduation requirements.

Conclusion
This study emphasizes that faculty members feel challenged to stimulate students' SRL in the context of PA; they feel it is not easy to adapt their feedback to meet students' individual needs and address the challenge of aligning coaching for SRL with graduation requirements.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

FACILITATING SELF-EFFICACY IN ICU TRAINING: A QUALITATIVE STUDY OF JUNIOR MEDICAL RESIDENTS' LEARNING EXPERIENCES

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Background and Aims
Intensive care units (ICUs) are high-stakes settings where patient safety and rapid life-saving interventions dominate medical decisions. The complexity and severity of ICU cases demand that physicians demonstrate clinical competence, of which self-efficacy in ventilator management is a critical component. Self-efficacy refers to an individual's belief in their ability to influence outcomes through their actions. It is shaped by the dynamic interaction of personal, behavioural, and environmental factors. Trainees in the clinical environment are usually exposed to a variety of teaching pedagogies, aiming to build a competent and confident clinician. However, it remains unclear which aspects of the training most effectively support the development of residents' self-efficacy in ventilator management.

Methods
This qualitative cross-sectional study recruited N=20 final year residents who completed a three-months ICU rotation as part of Singapore's National Health Group Internal Medicine Residency Programme. The programme delivers a rigorous curriculum intended to build clinical competency in critical care. The training was conducted in Tan Tock Seng Hospital, a tertiary hospital in Singapore. Eight focus group discussions were conducted to explore residents' experiences with teaching and feedback, ventilator management, and factors contributing to self-efficacy development. Data collection achieved thematic saturation. Transcripts were analysed following Braun and Clarke's approach to thematic analysis.

Results
Findings revealed nine sub-themes that further sorted into three overarching conceptual themes. Learners described their self-efficacy for ventilator management to be supported through: (1) A Practice-Based Setting that offers exposure-based training, experiential learning and routine expertise building; (2) Relational Mentorship that was continuous and nurturing, a reassuring safety net and growth-oriented; and (3) A Workplace-Centred Pedagogy that provided case-scenario teaching, holistic instructions and structured knowledge transmission.

Conclusion
The current curriculum for a three-months ICU posting provides sufficient foundation for developing residents' self-efficacy in ventilator management. Scaffolded learning that blends deliberate, situation-driven practice, continuous relational guidance, and exposure to work-place environment has the potential to increase learner engagement in the clinical workplace and promote active, confident participation in critical care.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

CLOSING THE GAP: UNDERSTANDING MEDICAL STUDENTS' VIEWS ON PATHOLOGY THROUGH AN OPEN HOUSE PROGRAMME

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Background and Aims
Pathologists play a crucial role in clinical diagnosis and patient management, yet their contributions are often under recognised and misunderstood by medical students in Thailand. This perception gap presents challenges, especially given the global shortage of pathologists. To foster interest and engagement in this specialty, medical students need a comprehensive understanding of pathology. This study introduces a Pathology Open House programme at Chiang Mai University to explore and enhance students' perceptions of the field. Understanding these perceptions is vital for developing strategies to increase interest in pathology and help address the shortage of pathologists in the healthcare system.

Methods
This study utilised a mixed-methods approach to evaluate the effectiveness of a four-day Pathology Open House programme intended to enhance medical students' perceptions of pathology. The programme combined theoretical knowledge with practical learning experiences, including lectures, hands-on tissue sampling, and the observation of essential diagnostic procedures such as Fine Needle Aspiration (FNA) and molecular pathology techniques. Participants included first-year medical students from Chiang Mai University. To assess their understanding of pathology and satisfaction with the programme, students completed an online questionnaire that included both closed-ended questions using a 5-point Likert scale and open-ended questions for qualitative feedback. Pre- and post-programme surveys were administered to evaluate changes in students' understanding of pathology, satisfaction with the learning experience, and career interests in the field. The quantitative data from the closed-ended questions were analysed using paired t-tests to determine significant changes, while qualitative responses were subjected to thematic analysis to capture feedback and insights regarding the programme's effectiveness.

Results
A total of 10 medical students completed the survey, representing approximately 83% of all participants in the open-house programme (10 out of 12). Following the Pathology Open House programme, students' understanding of the pathologist's role increased significantly (mean score: 2.1 to 4.8, $p < 0.0001$), as did their knowledge of daily responsibilities (1.5 to 4.4, $p<0.0001$). In addition, the score indicating students' intent to pursue a career as a pathologist in the future increased from 2.4 to 3.6 ($p=0.0018$). Participants highlighted the FNA clinic as the most impactful experience, receiving a score of 4.4, whereas tissue processing was rated less engaging at 3.7. Importantly, all students endorsed the continuation of the programme and expressed enthusiasm for encouraging peer participation. These findings demonstrate a substantial shift in student perspectives regarding the field of pathology, underscoring the programme's effectiveness in enhancing awareness and interest.

Conclusion
The Pathology Open House effectively enhanced students' understanding and appreciation of pathology, supporting the value of experiential learning in medical education. These findings address the gap in understanding and interest in pathology among medical students, potentially mitigating the global shortage of pathologists. Future iterations should incorporate more case-based, interactive elements to further increase engagement and broaden student participation.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

COMMUNITY-BASED INTERPROFESSIONAL EDUCATION: A PROJECT-BASED LEARNING APPROACH

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Background and Aims
Interprofessional education (IPE) plays a critical role in equipping health profession students with collaborative competencies. Among various delivery formats, community-based interprofessional education (CBIPE) is considered an effective approach to implementing IPE. CBIPE offers students valuable opportunities to explore public health issues, primary care, family medicine, and essential soft skills. At the University of Medicine and Pharmacy at Ho Chi Minh City, a CBIPE module has been implemented since 2021, with ongoing modifications and refinements. This report presents an overview of the module's implementation, the iterative improvement process, and an evaluation of the outcomes of interprofessional student-led projects.

Methods
Mixed method:

1. A case study describing the module design and adjustments made to the community-based interprofessional education (CBIPE) module.
2. A cross-sectional descriptive study assessing the outcomes of interprofessional student-led projects.

Results
The CBIPE module was implemented within primary health care settings across multiple urban districts. Interprofessional student teams, each comprising seven to eight members, were formed from five academic disciplines: medicine, pharmacy, nursing, physical therapy, and public health. These teams collaborated directly with primary care units to identify priority health issues, design context-specific intervention projects, and implement them under the guidance of faculty. In recent years, adjustments have included increased collaboration with primary healthcare units, reduced group sizes, and incorporation of systematic feedback from faculty, students, and stakeholders.

Across the four academic years, a total of 282 projects were conducted, reaching an estimated 8,221 community members. The interventions varied in setting and format, including approximately 47% school-based projects, 18% home visit, and 35% conducted in other community environments such as local health stations or residential neighbourhoods. The projects addressed a wide range of topics including health education, disease prevention, hygiene, nutrition, and early screening.

Approximately 82% of the projects successfully achieved their intended goals, based on student reports and faculty assessments. The module was iteratively refined each academic year based on structured feedback. Improvements included more strategic selection of primary healthcare units, smaller group sizes to enhance engagement, and integration of the Interprofessional Collaborator Assessment Rubric (ICAR) to systematically evaluate students' collaborative performance.

Conclusion
The CBIPE module has demonstrated substantial educational value, not only through the measurable impact of student-led projects but also through the development of essential interprofessional competencies. Across multiple academic years, these projects have effectively addressed diverse community health concerns, with a high proportion achieving their intended outcomes and contributing meaningfully to local populations. Moreover, the module offers a structured, authentic environment for interprofessional collaboration, enabling students from various health disciplines to build competencies in teamwork, communication, shared decision-making, and respect. Although certain primary healthcare units may not yet fully reflect the ideals of interprofessional education, the module equips students with practical experience navigating the complexities of real-world care settings, thereby enhancing their readiness for collaborative practice in evolving healthcare systems. Continuous refinement of the module is informed by structured feedback from students, faculty, and community

stakeholders, ensuring that its pedagogical strategies remain aligned with intended learning outcomes and responsive to the realities of interprofessional practice.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

IMPROVING THE CLINICAL LEARNING ENVIRONMENT OF MEDICAL STUDENTS – ADDRESSING WORKPLACE VIOLENCE DURING CLINICAL POSTINGS

Tan LL

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Background and Aims
Anecdotal instances of abuse against medical students by patients and/or their families are not uncommon. Yet, there is no systematic training programme for medical students in handling mistreatment in the clinical setting.

The aim of this project was to identify the prevalence and types of aggression experienced by medical students and explore their training needs in managing abusive situations.

Methods
A non-random purposive sample of medical students from different medical schools who were posted to a restructured hospital for at least six weeks were included. Data was collected through self-reported questionnaires to capture the students' experience with mistreatment in the clinical setting.

Results
135 students were enrolled. 32% encountered aggressive/violent patients (59% verbal; 41% verbal and physical) and 15% had to manage aggressive/violent family caregivers (86% verbal; 14% verbal and physical). 73% were unaware of any written policies on dealing with aggression and violence and were unprepared to manage such a situation. Almost all students enrolled did not attend any relevant training course. De-escalation techniques, communication and care strategies and crisis intervention including respectful self-defence measures, physical restraint and rapid tranquilisation were the areas identified to be important in the training programme.

Conclusion
Findings of the study created awareness to the frequent occurrence of aggression to medical students during their clinical postings. It provided justification for an appropriate training programme to prepare students to be more confident and competent in handling such situations. The ability to better manage these situations will result in less emotionally distressing clinical encounters which may further affect their learning journey. Further study is recommended to explore the effect of bespoke training for medical students on managing aggression and violence in the clinical setting.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

INTEGRATING AND EXPORTING MEDICAL EDUCATION RESOURCES: AN INTEGRATION-INTELLIGENT-INTERNATIONAL (3I) FRAMEWORK

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Background and Aims
Traditional medical education export models encounter three major challenges: The availability of educational resources is constrained, educational technology be underutilised, and unsustainable outcomes due to inadequate localisation. The Belt and Road Initiative (BRI) provides a unique platform to address these through cross-border synergy.

Methods
We propose the 3I Framework—Integrated resource consolidation, Intelligent technology empowerment, and International alumni networks—to reconfigure education export:

- Integration: Consolidated clinical and educational resources, including surgical videos and case libraries, from a large hospital in Fujian Province through the application of unified metadata, thereby enabling cross-institutional sharing.
- Intelligence: Deployed an AI-driven platform (multi-language virtual simulations, adaptive assessments) overcoming linguistic/cultural barriers.
- Internationalisation Initiatives: Cultivated 10 local trainers (graduates-turned-educators), establishing self-sustaining “education radiation points”.

Results
Since 2017, the teaching team has secured three invention patents and four utility model patents, alongside multiple educational achievement awards and teaching honours. Relevant pedagogical research outcomes were selected for oral presentation at the 2023 Annual Conference of the Association for Medical Education in Europe (AMEE), underscoring their academic recognition. These educational innovations have significantly enhanced students’ practical competencies and holistic development.

Between 2019 and 2024, 255 students received the Fujian Provincial Government Scholarship, 62 were awarded the Fujian Provincial Government Scholarship for International Students through institutional co-funding programmes, and 410 obtained various university-level scholarships. Students have demonstrated exceptional performance in national and international competitions, including: China International Medical Students Clinical Thinking and Skills Competition (Best Teamwork Award, Excellent Team Award, Best Appearance Award); eighth China Regional Round of the International Physiology Knowledge Competition(Second Prize of Group Category, First Prize of Individual Category) This programme has emerged as a pivotal platform for cultivating and exporting provincial medical talent. To date, it has graduated 304 international clinical medicine students from 31 countries (e.g., India, Pakistan, Tanzania). Follow-up surveys via the cross-border educational network indicate numerous graduates have successfully attained medical licensure in their home countries. Furthermore, alumni engage in feedback and professional consultation through cross-border educational network, fostering a sustainable cycle of educational output, reflective practice, and continuous quality improvement.

Conclusion
This study shows that the 3I Framework (Integration-Intelligent-International) effectively tackles core limitations of traditional medical education export. By standardising metadata to consolidate resources, deploying AI-driven adaptive learning tools, and leveraging alumni as “education radiation points”, we established a sustainable ecosystem for transnational medical training. Results-enhanced resource sharing efficiency and accelerated skill acquisition-validate the framework’s efficacy. Crucially, the graduate-to-educator mechanism transforms “brain drain” into self-sustaining knowledge dissemination, offering a replicable model for Global South collaboration. To amplify impact, we recommend:

1. Establishing certification standards for cross-border educational resources to ensure quality and interoperability;

2. Integrating blockchain to secure transnational academic data exchange and enhance trust. This initiative advances equitable global health workforce development and exemplifies the Belt and Road Initiative's potential in redefining international educational synergy.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

FROM POTENTIAL TO PRACTICE: MEDICAL STUDENTS' AND LEADERS' PERSPECTIVES ON ARTIFICIAL INTELLIGENCE INTEGRATION IN VIETNAMESE MEDICAL EDUCATION

***Nguyen VA*, Le TQ, Kim GB**

Centre for Assessment and Quality Assurance, Hanoi Medical University, Vietnam

Background and Aims
The integration of Artificial Intelligence (AI) into medical education has become a global imperative. However, their effective adoption in low- and middle-income settings remains uneven. In Vietnam, where medical education is undergoing a gradual digital transformation, understanding how key stakeholders perceive the value, feasibility, and challenges of AI, is essential to ensure meaningful and sustainable integration of AI in medical education. This study aims to explore the experiences, perceptions, and expectations of medical students and institutional leaders regarding the adoption of AI in Vietnamese medical education, with a focus on identifying opportunities, challenges, and strategic needs for future development.

Methods
This qualitative component was part of a broader national study on AI in medical education in Vietnam, conducted in 2024. Focus group discussions were held with students and institutional leaders from five state medical universities and one private university. The Diffusion of Innovation theory was used as a lens to analyse data thematically, focusing on five core attributes influencing adoption: relative advantage, compatibility, complexity, trialability, and observability.

Results
Participants generally perceived the significant potential (relative advantage) of AI as a tool for enhancing students' self-directed and personalised learning. However, students also expressed concerns about over-reliance on AI and emphasized the need for formal training in ethical use of AI in academic and research contexts. Leaders highlighted the long-term relevance of AI, particularly in areas such as assessment reform, data management, and clinical diagnostics. Nonetheless, concerns were raised regarding its compatibility with the current medical curriculum, given the limited technological infrastructure, unclear regulatory frameworks, and absence of institutional strategies. Despite these challenges, both students and faculty expressed a strong conviction that medical universities must develop appropriate strategies-such as aligning AI with institutional priorities, investing in faculty development, and integrating AI into the curriculum-to keep pace with the global trend of AI adoption in both healthcare and medical education.

Conclusion
Our findings highlight both the enthusiasm and the hesitancy surrounding AI adoption in Vietnamese medical schools. Through the lens of Diffusion of Innovation theory, these findings suggest strategies such as reducing perceived complexity through targeted training, education addressing concerns of stakeholders, and demonstrating observable outcomes are potential approaches to integrate AI in medical education, particularly in low- and middle-income countries.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE ROLE AND INNOVATIVE PRACTICES OF SCIENCE COMMUNICATION CAPACITY BUILDING IN THE CULTIVATION OF OUTSTANDING MEDICAL TALENTS IN THE DIGITAL-INTELLIGENT ERA: TAKING THE "TONGTONG MINGMU WORKSHOP" AS AN EXAMPLE

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Background and Aims
Chinese government has emphasized that scientific and technological innovation, alongside science communication (SciCom), constitute the two wings of innovative development, underscoring the need to prioritise SciCom equally with scientific and technological innovation. Characterised by multidisciplinary integration, cultivating medical students' competence in medical SciCom represents an innovative initiative under the Ministry of Education's "New Medicine" construction framework. However, the development of the digital-intelligent era presents both opportunities and challenges for human-centred medical SciCom practices, while the pathways for nurturing medical students' SciCom capabilities in China remain undefined. Therefore, clarifying the role of medical SciCom capacity-building in cultivating outstanding medical talents and exploring its implementation pathways hold significant importance in the new era.

Methods
As an ophthalmology department affiliated with a higher education institution's hospital, we established the "Tongtong Mingmu Workshop" in July 2021, recruiting medical undergraduates to join this "academia + SciCom" innovative platform beyond internationalised classroom settings. This initiative enabled students to apply digital technologies in early-stage practices of ophthalmological interdisciplinary research and SciCom. A total of 30 medical undergraduates who had not participated in any student organisational activities were randomly selected by student number as the control group, while 30 medical students who had engaged in the workshop for at least one year formed the experimental group. Questionnaires assessing basic demographics and indicators from the Core Competencies for Chinese Student Development were administered, with comparisons made between the two groups regarding academic performance and core competency levels over two semesters.

Results
After four years of operation, the workshop has trained 10 undergraduate, master's, and doctoral students, published eight SCI-indexed papers, and cultivated five university-level or above outstanding graduates. Following one year of practice, the number of medical students in the workshop with academic performance ranking in the top 30% increased by 28%. Self-assessment scores of the experimental group in six core competencies including humanistic literacy, scientific spirit, learning competence, responsibility, and practical innovation, were significantly higher than those of the control group (all $p < 0.05$).

Conclusion
In the digital-intelligent era, leveraging digital information technology to cultivate medical students' science communication capabilities not only enhances their core developmental competencies but also serves as an effective practice to address the "emotional crisis" of the era. This innovative initiative has effectively empowered the integration of undergraduate and graduate education, holding significant implications for cultivating compassionate outstanding medical talents, fostering new quality productivity, and improving the health literacy of China's population.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

HEALTHCARE STUDENTS' BARRIERS TO SEEKING MENTAL HEALTH COUNSELLING: A CROSS-SECTIONAL STUDY IN HO CHI MINH CITY, VIETNAM

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School of Nursing, Faculty of Nursing and Medical Technology, University of Medicine and Pharmacy at Ho Chi Minh City, Vietnam

Background and Aims
Healthcare students often face intense academic and clinical practice pressures, contributing to an increasing prevalence of mental health issues within this population [1-4]. Despite this, many students remain reluctant to seek professional psychological support [1, 5-7]. Specific barriers influencing mental health help-seeking behaviour among healthcare students in Vietnam have not been thoroughly investigated. The main objectives of this study were to examine the barriers to seeking mental health counselling in university students at the medical university at Ho Cho Minh City, Vietnam.

Methods
A cross-sectional descriptive study was conducted from January to June 2025 among 604 students (128 males, 472 females, and four of unidentified gender) enrolled in 24 classes across six majors, from first year to fourth year, within the Faculty of Nursing and Medical Technology at the University of Medicine and Pharmacy at Ho Chi Minh City. Using a balanced stratum approach and a convenience sampling method, participants were invited to complete an online, self-administered questionnaire. The Barriers to Seeking Mental Health Counselling Scale (BMHC) translated into Vietnamese was used as the main instrument to collect data. This scale identifies six dimensions of barriers: Negative perceived value, discomfort with emotions, ingroup stigma, lack of knowledge, lack of access, and cultural barriers [8].

Results
The survey revealed that 8.4% of respondents had experienced psychological or mental health disorders at some point, and 15.7% reported having previously accessed mental health counselling services. The analysis identified the top three barriers with the highest mean scores as cultural barriers (mean=16.76, SD=3.48), negative perceptions value (mean=16.21, SD=4.78), and discomfort with emotions (mean=15.95, SD=5.44), followed by lack of access (mean=14.19, SD=4.69). Meanwhile, the lowest mean scores were assessed for lack of knowledge (mean=11.56, SD=4.02) and ingroup stigma (mean=13.07, SD=4.52). The majority of students experienced a moderate level of difficulty across all six categories of barriers when seeking mental health counselling.

Conclusion
Negative perceptions, cultural barriers, and emotional discomfort were key factors hindering mental health help-seeking among healthcare students. Students reported moderate barriers across all BMHC dimensions. These findings underscore the need for universities to improve communication about mental health services, including access procedures and reliable external resources. Increasing student awareness may help reduce barriers and foster more positive attitudes toward seeking support.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 9.00am

London Hall & Washington Hall, Level 5

SHORT COMMUNICATIONS 6

Internationalisation of Medical Education in Lower-Middle-Income Countries: A Scoping Review
Minh Thuy Ha, Vietnam

"Let Night Shift Not Cry" – Design, Development and Evaluation of General Curriculum for Residents
Liu Jianghui, China

Pilot Student Mentoring Programme in Newly Established Faculty of Medicine – University of Moratuwa
Nadhee Peries, Sri Lanka

Pilot Study on Examining the Effectiveness of a Peer-Learning Programme for Occupational Therapy Students Placed on Clinical Placement in Singapore
Eunice See Eng Seah, Singapore

Integration and Leadership – Cultivating Medical Student Management and Leadership Within the Graduate Program of West China School of Medicine, Sichuan University
Jiahui Kou, China

Attention Status and Influencing Factors Among Eight-Year Clinical Medicine Programme Students in a Guangzhou Affiliated Medical College
Hui Zhou, China

How Academic Officers Drive Research Development in Medical Education
Boontawee Junlen, Thailand

Correlation of Clinical Practice Activities with Communication and History-Taking Competencies Among Medical Students
Ngoc Lai Ho, Vietnam

Optimising Efficiency and Competency: A Hybrid Training Model for Sustainable Support Care Workforce Development in Singapore
Wanzhen Zhao, Singapore

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

INTERNATIONALISATION OF MEDICAL EDUCATION IN LOWER-MIDDLE-INCOME COUNTRIES: A SCOPING REVIEW

Ha MT

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Background and Aims
The internationalisation of medical education (IoME), the purposeful integration of international, intercultural, or global dimensions into medical curricula is increasingly recognised as an essential component in producing globally competent healthcare professionals. While extensively studied in high-income countries, IoME remains underexplored in lower-middle-income countries (LMICs), which face distinct resource constraints and contextual challenges. This scoping review aims to systematically map existing literature on how IoME is conceptualised and implemented in LMICs. Specifically, it investigates the strategies adopted, challenges encountered, and reported outcomes, with the goal of informing future research, educational practice, and policy development in resource-limited settings.

Methods
Following the Joanna Briggs Institute (JBI) and PRISMA-ScR guidelines, we conducted a comprehensive search across six databases including PubMed, Scopus, Web of Science, ERIC, Google Scholar, and ScienceDirect, complemented by citation tracking. Literature was screened using EndNote and Rayyan. Eligible studies focused on IoME activities within tertiary medical education settings in LMICs, including mobility programmes, curriculum reforms, partnerships, accreditation alignment, and policy issues. Both peer-reviewed and grey literature in English were included. Data was extracted and analysed thematically.

Results
Preliminary findings reveal a diverse range of internationalisation strategies, including student and faculty mobility, global health curriculum integration, and alignment with international accreditation frameworks. However, challenges such as limited resources, one-directional partnerships, and the lack of context-specific adaptation remain prevalent across LMIC settings. Few studies addressed long-term sustainability or evaluation of impact. Notably, innovative practices such as virtual mobility and internationalisation-at-home were identified but remain underutilised.

Conclusion
This review highlights the complex and uneven landscape of IoME implementation in LMICs. Findings underscore the need for equitable collaboration, sustainable capacity building, and contextually relevant models. The results provide timely insights to guide educators, institutions, and policymakers in designing effective and inclusive internationalisation strategies in global medical education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

"LET NIGHT SHIFT NOT CRY" – DESIGN, DEVELOPMENT AND EVALUATION OF GENERAL CURRICULUM FOR RESIDENTS

Jianghui L

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Background and Aims
The performance of residents in night shift is not satisfactory, especially in critical situations. This study aimed to design a general curriculum to guide the clinical thinking and standardise the clinical decision-making of residents on night shift.

Methods
Based on clinical field observation, we designed a questionnaire related to night shift and distributed it to residents to solicit course content. After careful analysis of the survey results, a 24-topic general curriculum was designed and called "night shift cry". The one-hour course adopted simulation teaching and only 16 residents were allowed to attend at a time. There were tests of course content before and after each course, and evaluations by residents after each course. Two weeks later, residents enrolled in different courses were cross-tested. Each resident filled out a course reflection journal and underwent a semi-structured interview. Within two months after the class, residents were required to describe actual related clinical cases and personal feelings.

Results
A total of 105 residents completed the survey including 48% male and 52% female, 32.4% post-graduate, 46.6% doctoral residents and 21% post-doctoral, giving a response rate of 65.6. 93.3% of the residents described clinical problems they could not handle on shift night, 95.3% admitted they had made wrong decisions and 94.3% reviewed their uncertain decisions. All the residents expressed their desire for targeted courses to improve clinical competence. Both the pre/post course test and cross-test results showed theoretical test scores had been significantly improved and the differences were statistically significant. 100% of participants felt the courses were well run, well-structured, close to clinic and highlighted areas of weakness in their knowledge and skills. 93.8% residents applied the knowledge and skills to their clinical work after the course, had good achievement in clinical work, and proved the effectiveness.

Conclusion
Clinical problems encountered by residents in night shift can be ameliorated through targeted curriculum design. The learning environment formed by the simulation course is well received by residents and has good teaching outcome.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

PILOT STUDENT MENTORING PROGRAMME IN NEWLY ESTABLISHED FACULTY OF MEDICINE – UNIVERSITY OF MORATUWA

***Peries N*, Perera J, Atapattu C**

Department of Medical Education, Faculty of Medicine, University of Moratuwa, Sri Lanka

Background and Aims
Mentoring is universally acknowledged as fundamental to personal and professional development in medical education; nonetheless, each institution encounters distinct hurdles in achieving the effectiveness of these programmes. At the newly founded Faculty of Medicine, University of Moratuwa (FoM UoM), both students and faculty were experiencing mentorship for the first time and the pilot Student Mentoring Programme (SMP) at FoM UoM was tailored to guarantee that each student had a mentor available for guidance throughout their undergraduate experience. SMP was continuously assessed for improvements and thoroughly evaluated after two years.

Methods
First, the mentoring policy was established and received university approval. All mentors received training in mentoring skills, and both mentees and mentors were introduced to the SMP. A SMP-coordinator was designated to centralise and monitor activities. All students were randomly assigned to faculty members, resulting in a mentee-mentor ratio of 20:1 due to the limited number of academic staff. In contrast to several established programmes, this new programme had to swiftly adjust to a fast-evolving environment, encompassing rapid temporary-staff turnover, financial constraints limiting permanent academic cadre, and the challenges of remote learning during a pandemic. This necessitated a re-adjustment of the mentee allocation and the provision of support for both mentees and mentors.

After a period of two years, the pilot mentoring programme was evaluated via survey questionnaires and interviews among mentors and mentees. The evaluation explored their perceptions of the programme's strengths and weaknesses, and the benefits, challenges they have experienced and the impact it has had on both mentors and mentees to improve and execute a proper programme as the next step.

Results
78 mentees out of 102 and 10 mentors out of 17 have provided feedback. Most mentees mentioned that the sessions were helpful for their personal development (83.4%), professional development (86.2%), improved confidence (87.2%), improved focus to accomplish goals (88.5%), and improved networking (88.5%). 85.9% of mentees claimed that they have a good overall satisfaction on the programme. Yet, they requested more sessions specially planned near continuous and barrier examinations. According to the mentors, all most all felt they have too many mentees allocated, hence, it was difficult to have frequent meetings and spend more quality time with individual mentee. Junior academic staff claimed that they did not feel ready for mentoring even after the initial training. 70% of the mentors felt that there should be an allocated date for mentoring sessions due to difficulty in arranging time during time tabled hours. 92% of mentors felt that mentees are not well prepared for mentoring sessions, even though the mentors are ready to support midst the odds, while mentees believe that mentors should take the initiative to support them.

Conclusion
The findings are an eye opener and provide practical recommendations for strengthening the programme by improving the number of mentors, having time-tabled planned sessions near examinations, more training for junior academic staff and this may also offer insights for other new medical faculties facing similar challenges.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

PILOT STUDY ON EXAMINING THE EFFECTIVENESS OF A PEER-LEARNING PROGRAMME FOR OCCUPATIONAL THERAPY STUDENTS PLACED ON CLINICAL PLACEMENT IN SINGAPORE

***Seah ESE*, Teo SH**

Rehabilitation, Occupational Therapy, National University Hospital, National University Health System (NUHS), Singapore

Background and Aims
In recent years, Singapore faced increasing demand for clinical placements (CPE) for Occupational Therapy (OT) students. To address this, peer learning has been used widely in clinical education in healthcare settings, where there is a shift from the traditional 1:1 student-to-clinical educator (CE) ratio to a 2:1 model. This approach fosters two-way reciprocal learning whereby students can share their knowledge, collaborate on problem-solving, and discuss clinical reasoning, which has been shown to enhance placement outcomes. However, there is a lack of research examining whether a peer learning programme can improve students' clinical reasoning and self-efficacy in work-related tasks.

Therefore, the aim of the pilot study is to investigate the effectiveness of a new peer-learning programme for OT students during their CPE in Singapore.

Methods
Our study involved OT students from the Singapore Institute of Technology who were assigned to the National University Hospital for their CPE. Participants were English-speaking, aged 21 and above, and paired with a peer under the same clinical educator. Students were invited via email prior to the start of their CPE, and those interested were approached by the study team for informed consent. Participants completed two pre- and post-placement assessments: The Occupational Self-Efficacy Scale-Short Form (OSS-SF) and the Self-Assessment of Clinical Reflection and Reasoning (SACRR). They also completed an e-learning module on peer learning during the first week of placement and engaged in at least 5 hours of peer learning activities per week, documented in a peer learning log.

Results
The study, conducted from March 2023 to March 2025, initially recruited 14 participants aged 21 to 39. Two participants were excluded for not meeting the minimum peer learning hours requirement, resulting in 12 participants completing the study. Wilcoxon signed ranks tests were used to analyse the differences in pre- and post-test scores for both assessments. The results showed significant improvements in both SACRR ($p=0.005$) and OSS-SF ($p=0.016$) scores.

Conclusion
Our findings suggest that implementing a structured peer learning programme during CPE can effectively enhance students' clinical reasoning and self-efficacy in work-related tasks. CEs may also spend less time on students with a weekly average of 9.9 hours while the students are meaningfully engaged in peer learning activities. This allows CEs to manage their workload and administrative duties more efficiently, potentially reducing stress and anxiety associated with supervising students during CPE.

In conclusion, peer learning emerges as an effective collaborative strategy in clinical education, enhancing students' clinical reasoning while optimising clinical educators' time management. Implementing peer learning programmes in clinical placements could be a viable solution to address the growing demand for clinical training opportunities in Singapore.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

INTEGRATION AND LEADERSHIP – CULTIVATING MEDICAL STUDENT MANAGEMENT AND LEADERSHIP WITHIN THE GRADUATE PROGRAM OF WEST CHINA SCHOOL OF MEDICINE, SICHUAN UNIVERSITY

Kou J

Department of Graduate Student, Clinical Medicine, West China School of Medicine, Sichuan University, China

Background and Aims
In contemporary medical education, developing clinicians who integrate professional excellence with leadership capacity has become a central goal. The diverse healthcare systems across the Asia-Pacific region particularly require future physicians who can coordinate multidisciplinary teams and lead systemic change. To address this need, West China School of Medicine, Sichuan University, has designed and implemented a comprehensive "Guiding Values – Platform Empowerment – Practical Tempering" training model throughout its postgraduate program.

Methods
The core innovation lies in the model's systematic structure. Guiding Values are fostered through activities such as the "First Lesson of the Semester," the White Coat Ceremony, and medical humanities lectures, reinforcing professional ethics and dedication. Platform Empowerment is achieved through student organization reforms and institutional development, offering managerial practice opportunities to approximately 1,000 postgraduate student leaders. Practical Tempering is realised via immersive experiences in programs including the "Doctor Express" community health initiative, the "Young Practitioners Plan" with real-post training, the "Challenge Cup" National Academic Competition, and the China International College Innovation Competition.

Results
The model has yielded notable outcomes. The "Doctor Express" project received the Gold Award in the 4th National Health Youth Volunteer Service Competition. Students achieved outstanding results in the 19th "Challenge Cup" competition, including multiple national first prizes. Postgraduates gained high recognition from local governments for their structured support models developed during grassroots postings.

Conclusion
The "Trinity" model provides a reproducible and systematic framework—the "West China Approach"—for integrating leadership training into medical postgraduate education. It demonstrates an effective pathway for embedding leadership development throughout professional training, offering a valuable reference for medical institutions in China and beyond seeking to educate future healthcare leaders.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ATTENTION STATUS AND INFLUENCING FACTORS AMONG EIGHT-YEAR CLINICAL MEDICINE PROGRAMME STUDENTS IN A GUANGZHOU AFFILIATED MEDICAL COLLEGE

***Zhou H*, Wu H, Su H**

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Background and Aims
To investigate the attention status and its influencing factors among students in an eight-year clinical medicine programme, providing evidence for optimising medical education strategies.

Methods
A cross-sectional study was conducted using a structured questionnaire. All 109 students from the 2020 cohort of the eight-year clinical medicine programme at a Guangzhou affiliated medical college were invited; 37 valid responses were included (Male: 64.9%, Female: 35.1%). The questionnaire assessed attention status, electronic media usage habits, sleep patterns, learning behaviours, intrinsic/extrinsic influencing factors, and attention management strategy preferences.

Results
The study revealed significant attention challenges among eight-year clinical medicine students: 40.5% (15/37) reported difficulty sustaining focus beyond 30 minutes during theoretical lectures, 81.1% (30/37) experienced mobile device distraction during self-study, and 32.4% (12/37) exhibited attention deficits in literature reading due to fatigue. Key intrinsic factors included sleep insufficiency (reported as primary concern by 75.7% [28/37]) and substantial electronic device dependency, with 43.2% (16/37) primarily using devices for entertainment and 70.3% (26/37) consuming >1 hour of daily entertainment videos. Major extrinsic distractors were smartphones/social media (83.8%, 31/37), low course content attractiveness (56.8%, 21/37), and teaching methods (56.8%, 21/37). Behavioural patterns showed 70.3% (26/37) averaged only six to seven hours nightly sleep, while clinical learning approaches included heavy reliance on note-taking during history-taking (54.1%, 20/37) yet impaired cognitive coherence during medical record writing (40.5%, 15/37). Regarding AI cognition, 51.4% (19/37) disputed AI's negative impact on knowledge retention efficiency, though 27.0% (10/37) demonstrated AI dependency tendencies. For management strategies, students prioritised personal interventions including regular sleep-wake cycles (56.8%, 21/37) and reduced device usage (29.7%, 11/37), while institutionally advocating course scheduling optimisation (72.9%, 27/37) and enhanced instructional communication skills (43.2%, 16/37).

Conclusion
Attention difficulties among eight-year clinical medicine students are significantly associated with sleep insufficiency, entertainment-oriented electronic device use, and insufficient teaching interactivity. Interventions should integrate digital fasting training, optimised curriculum scheduling, interactive teaching methods, and enhanced attention management skill development.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

HOW ACADEMIC OFFICERS DRIVE RESEARCH DEVELOPMENT IN MEDICAL EDUCATION

***Junlen B*, Wannasri C, Sirijanchune P, Lakham P, Saisawat K, Jariyapongpaiboon Y**

Medical Education Centre, Chiangrai Prachanukroh Hospital, Thailand

Background and Aims
Introduction: Undergraduate medical research is a vital component of medical education, fostering critical thinking, academic inquiry, and clinical integration. At Chiangrai Prachanukroh Hospital, a regional medical education centre affiliated with Chiang Mai University, medical students begin their research journey during their third year, while still based in Chiang Mai. This geographic separation necessitates close coordination among institutions. The academic officer (AO) has played a central and often underappreciated role in bridging this gap and ensuring the smooth progression of student research activities.

Objective: This study aimed to explore and evaluate the role and impact of academic officers in supporting undergraduate medical research over a five-year period, focusing on collaboration between students and clinical faculty members at Chiangrai Prachanukroh Hospital.

Methods
A retrospective, descriptive study was conducted involving 240 fourth-year medical students and 36 clinical faculty advisors from academic years 2020 to 2025. Data was collected through internal reports, feedback surveys, and publication records. Activities and responsibilities of the AO were categorised and analysed, including coordination with ethics committees, medical records units, statistical teams, manuscript preparation, and journal submission. Satisfaction and performance metrics were gathered via surveys from students and faculty.

Results
A total of 50 research projects were successfully completed and submitted, 10 of which received awards from Chiang Mai University. The AO facilitated continuous coordination between institutions during students' third-year planning phase and their fourth-year clinical research execution. The academic officer helped with topic selection, group formation, advisor matching, ethics approval, data collection, statistical analysis, manuscript writing, and journal submission. The officer also organised student research presentations and competitions. Notably, 98% of respondents (students and faculty) reported high satisfaction with AO support, and AO performance was rated at 96% effectiveness. AOs also played key roles in organising internal research presentation competitions and guiding students through publication in local medical journals, such as the Chiang Rai Medical Journal.

Conclusion
Academic officers play a crucial role in supporting medical student research, especially in a distributed learning setting. Their work ensures that research projects proceed smoothly from planning to publication. This study highlights the importance of dedicated academic staff in improving the quality and success of undergraduate research. Strengthening this role may help develop sustainable research training for future medical professionals. Recognising and reinforcing their role can lead to more sustainable and impactful research education models in medical schools.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

CORRELATION OF CLINICAL PRACTICE ACTIVITIES WITH COMMUNICATION AND HISTORY-TAKING COMPETENCIES AMONG MEDICAL STUDENTS

Ho NL

Centre for Advanced Training in Clinical Education (ATCS), School of Medicine, University of Medicine and Pharmacy at Ho Chi Minh City, Vietnam

Background and Aims
In modern medical education, communication skills and history taking are essential competencies that enhance patient care effectiveness, strengthen trust between physicians and patients, and improve patient satisfaction and treatment adherence. In Vietnam, the Ministry of Health mandates communication skills as a core competency for general practitioners. History-taking is a critical step in the diagnostic process, contributing significantly to informed clinical decision-making. Although previous studies have emphasized the role of clinical practice in developing communication and history-taking skills, the relationship between these factors remains unclear. This study aims to evaluate the attitudes and behaviours of third-year medical students during clinical practice and to determine the correlation between these factors and their communication and history-taking competencies.

Methods
This descriptive cross-sectional study was conducted on 177 third-year medical students from October to December 2024. Data was collected via an online questionnaire distributed individually through Google Forms, covering four domains: demographics, student attitudes, student behaviours during clinical practice, and clinical learning methods. Communication and history-taking competencies were assessed using a checklist during the final OSCE exam conducted in a simulated clinical environment. The cut-off score for competency was determined by the modified Cohen method of standard setting. Collected data was processed and analysed using STATA statistical software, with correlations examined through multivariate regression analysis.

Results
Among 177 participants, the male-to-female ratio was approximately 7:3, with over 90% identifying as Kinh ethnicity, and more than half choosing medicine based on personal interest. The rate of students achieving competency in communication and history taking was 84.2%. Statistically significant factors influencing these competencies included female gender, absence of warnings regarding professionalism from faculty or hospital staff during clinical rotations, and frequency of presenting clinical cases to instructors in group settings.

Conclusion
The study demonstrates that communication and history-taking competencies among medical students are significantly associated with female gender, professional attitudes during clinical practice, and regular presentation of clinical cases before peers. These findings provide evidence to support enhancements in medical curricula and teaching methods aimed at improving clinical communication and history-taking skills. Future research should focus on developing targeted interventions to optimise these competencies in clinical education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

OPTIMISING EFFICIENCY AND COMPETENCY: A HYBRID TRAINING MODEL FOR SUSTAINABLE SUPPORT CARE WORKFORCE DEVELOPMENT IN SINGAPORE

Zhao W

Nursing Service, Education and Practice, Tan Tock Seng Hospital, Singapore

Background and Aims
To address the workforce challenges in support care roles (e.g., unattractive job scope, limited career progression, competitions from other industries), Ministry of Health (MOH) started Job Redesign (JR) initiatives to strengthen career value proportion by rebalancing job scope to include a higher proportion of admin/ops task (30%- 70% blend of admin and clinical tasks); spreading “less attractive” tasks among a larger pool of workers and strengthening cross-deployability opportunities and career progression pathways, supported with developmental opportunities and training. Under this JR efforts, role harmonisation and standardised training are prioritised. However, existing national certification programmes strain operational workflows and budgets, costing $8,357 per staff and requiring nearly a month of absenteeism.

To address this, Tan Tock Seng Hospital designed a hybrid training model that integrates in-house training for clinical modules with accredited national training for non-clinical topics. Staffs are required to complete exams at accredited training centres after the in-house training, ensuring compliance with national standards. Staffs are still taking clinical duties while taking this part-time study.

This study evaluates the impact of hybrid training model on cost efficiency, competency, and workforce sustainability.

Methods
A mixed-methods evaluation was conducted with 25 support care staffs who underwent the hybrid training from August 2024 till March 2025. Study measured two key areas: Cost analysis – compared expenses between traditional ($8,357/staff: course fees + absentee payroll) and hybrid models ($3,040/staff: manpower and logistic training cost + absentee payroll); Competency assessment- post-training surveys measured confidence, skill application, and satisfaction via Likert-scale questions (1-5 agreement). Qualitative feedback captured perceived benefits and areas for improvement.

Results
This hybrid model achieved significant cost efficiency, saving $5,316 per staff (64% reduction). Training outcomes were strong, with a 100% certification rate among 25 participants. Notably, 88% agreed the model effectively balanced learning with clinical duties, and 72% reported improved work-learn balance. Staff highlighted faster certification (52%) and increased confidence in handling clinical and administrative tasks (48%) due to contextualised in-house training. Operationally, absenteeism was reduced by 76% (7 vs. 29 days), minimising workflow disruption. Post-training, 84% of staff reported increased motivation, with 80% recommending the model for its alignment with redesigned roles, particularly for younger workers. Improvement areas included a need for more hands-on clinical practice (60%) and simplified exam scheduling (28%), indicating opportunities to further refine of the model.

Conclusion
The hybrid model successfully bridges the gap between mandatory national accreditation and operational feasibility. By significantly lowering training costs, minimising operational disruptions, and delivering 100% certification rates, this model aligns closely with MOH’s JR goals. Staff feedback highlights its potential to boost confidence, motivation, and retention in manpower-intensive roles. Data from Human Resources shows 50% reduction of attrition rate for Care Support Associate (CSA) from 22.4% in 2022 vs. 11.2% in 2024, this is vital for attracting younger generations to support care roles.

In order to scale this model nationally to accelerate sector-wide role standardisation, it is essential to increase hands-on clinical practice to close skill gaps and streamline exam logistics in collaboration with accredited partners.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 10.45am

Hua Yue 1, Level 3

SHORT COMMUNICATIONS 7

Bridging Learning and Patient Care: The Impact of Supervised Teaching Clinics on Clinical Competency and Professional Development in Gynaecology Education
Hong Zhan, China

Unveiling the Dimensions: A Cross-Sectional Study of Multifactorial Influences on Medical Students' Choice of Surgery as a Career Pathway
Tri Pham, Vietnam

Developing Sustainable Nurse-Led Services Through Knowledge Transfer: The National Skin Centre Experience
Brenda Lim, Singapore

Integrating Health Insurance Literacy into Medical Humanistic Education: Broadening the Scope of Patient-Centred Care
Shiwen Ding, China

Resilience and Academic Pressure Affecting to the Academic Achievement of Medical Students in the Strengthening Track
Wirasu Pongpirawitch, Thailand

Health-Promoting Behaviours of Nursing Students at the University of Medicine and Pharmacy at Ho Chi Minh City and Related Factors
Thi Thuy Dung Tran, Vietnam

Active Engagement with Learners in Co-Creating and Collaborative Knowledge Building by Creating Multiple-Choice Questions
Lik Wei Wong, Singapore

Integrating Basic Sciences in Medical Education (ME): Students' Perspectives from Across the Globe
Kana Halic Kordic, Croatia

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

BRIDGING LEARNING AND PATIENT CARE: THE IMPACT OF SUPERVISED TEACHING CLINICS ON CLINICAL COMPETENCY AND PROFESSIONAL DEVELOPMENT IN GYNAECOLOGY EDUCATION

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Background and Aims
Traditional clinical rotations in gynaecology often relegate medical students to passive observational roles, limiting their active participation and hindering the development of essential clinical skills and professional identity. To address this gap, this study implemented and evaluated Supervised Teaching Clinics (STCs)–an innovative model where students conduct consultations with real patients under expert supervision-aimed at fostering active learning and enhancing clinical competencies.

Methods
A prospective randomised controlled trial enrolled 144 fifth-year medical students with prior gynaecological inpatient experience. Participants were stratified and randomly assigned to either a control group (n=80, traditional five-days shadowing) or an STC group (n=64, combining three days of shadowing with two days of supervised patient consultations). The STC framework emphasized three pillars: Goal Direction (structured objectives), Relationships (student-tutor-patient interactions), and Supporting Services (environment/resources). Outcomes were assessed using the Generalised Self-Efficacy Scale (GSES) and mini-Clinical Evaluation Exercise (mini-CEX). Feedback surveys from students, tutors, and patients evaluated satisfaction and perceived effectiveness.

Results
The STC group demonstrated significantly greater improvements in self-efficacy (GSES: $p<0.05$) and clinical skills compared to controls. Mini-CEX assessments revealed superior performance in medical interviewing (4.1 vs. 3.4, $p<0.05$), counselling (4.2 vs. 3.5, $p<0.05$), and overall clinical competence (4.3 vs. 3.7, $p<0.05$). Notably, 85% of students strongly agreed that STCs enhanced counselling skills and clinical judgment. Patient feedback was exceptionally positive (mean satisfaction: 4.94/5), with 96% reporting "rigorous medical ethics" and 95% feeling "safe and comfortable". Tutors affirmed STCs' educational value, though 33% noted time challenges. Gender-specific analysis indicated male students experienced greater self-efficacy gains.

Conclusion
The STC model effectively bridges student-centred education and patient-centred care by integrating goal-directed learning, collaborative relationships, and robust support services. It significantly enhances students' clinical competencies, self-efficacy, and professional development while maintaining high patient satisfaction. This study advocates for STCs as a standardised component of gynaecological training, offering a replicable framework to transform passive shadowing into active, reflective clinical learning across health professions education.

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UNVEILING THE DIMENSIONS: A CROSS-SECTIONAL STUDY OF MULTIFACTORIAL INFLUENCES ON MEDICAL STUDENTS' CHOICE OF SURGERY AS A CAREER PATHWAY

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Background and Aims
To investigate the multifactorial influences affecting medical students' choices to pursue surgery as a specialty, focusing on intrinsic motivations and external factors within a private, not-for-profit medical institution in a lower-middle-income country (LMIC). The study aimed to determine how personal interests, perceived career opportunities, gender disparities, and media influence affect surgical career choices.

Methods
This cross-sectional, survey-based study was conducted in a not-for-profit medical school, located in a major urban area of Vietnam. A total of 144 students from the second to fourth years were invited, with 131 completing the survey (response rate: 91%). Participants included both males and females, with diverse socioeconomic backgrounds. First-year students were excluded due to limited exposure to clinical and surgical education. The primary outcomes were the preferences for surgical specialties, quantified through Likert-scale responses assessing various influencing factors. Secondary outcomes included the analysis of demographic variables' influence on specialty choice and the identification of significant predictors through logistic regression.

Results
Of the respondents, 36% identified surgery as their preferred specialty. Key factors influencing this choice included personal interest, availability of jobs in major cities, and media portrayals of surgeons, with personal interest being the most influential (average score: 4.5/5). Gender analysis showed males were significantly more likely to choose surgery (odds ratio [OR]=4.33, 95%CI: 1.65-12.5, p=0.004). Those interested in urban practice also showed a higher likelihood of choosing surgery (OR=4.21, 95% CI: 1.01-23.6, p=0.068). Interestingly, students who rate leadership roles highly are more inclined towards surgical specialties (p=0.012), and those interested in research and teaching are more likely to opt for non-surgical fields (p=0.031).

Conclusion
The study concludes that intrinsic factors like personal interest and external influences such as media portrayals significantly impact surgical career choices among medical students in Vietnam. The findings suggest the need for targeted mentorship and educational reforms to balance gender disparities and enhance the attractiveness of surgical careers.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

DEVELOPING SUSTAINABLE NURSE-LED SERVICES THROUGH KNOWLEDGE TRANSFER: THE NATIONAL SKIN CENTRE EXPERIENCE

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Background and Aims

Nursing practice has historically faced significant constraints in performing advanced procedures and diagnostic ordering, limiting the full potential of nursing professionals in specialised healthcare delivery. The National Skin Centre (NSC) revolutionised this paradigm by implementing a comprehensive and sustainable model of specialised nurse-led services in dermatology and sexually transmitted infection (STI) control through systematic generational knowledge transfer. This initiative aimed to enhance healthcare accessibility while maintaining quality standards and optimising resource utilisation in specialised dermatological and STI control care.

Methods

In the 1990s, NSC embarked on a transformative journey by sponsoring pioneer nurses for advanced overseas training through the Ministry of Health's Healthcare Management Development Plan. These specially trained nurses became the cornerstone of NSC's internal knowledge transfer programmes, creating a self-sustaining ecosystem of specialised nursing expertise. The cascading model of knowledge transfer was strategically designed and implemented through structured mentorship programmes in 2000s, standardised training protocols, and competency assessments in 2010s. This systematic approach resulted in the development of comprehensive nurse-led services including Wart Treatment (2011), Sexually Transmitted Infection (STI) Screening (2019) and vaccination services (2023), and Advanced Practice Nurse services for Nursing Homes support (2021), Eczema (2023) and STI (2024). The programme incorporated regular nursing audits, case discussions, accreditation and certification of APN, and ongoing continuous professional development to ensure maintenance of high clinical standards.

Results

The implementation of this generational knowledge transfer model significantly enhanced healthcare delivery efficiency across multiple dimensions. Specially trained nurses now independently manage protocolised treatments, supported by clear escalation pathways for complex cases requiring physician intervention. 60% of senior staff nurses were cross trained to support at least three subspecialty clinics. Recent annual statistics (2023-2024) demonstrate sustained operational excellence, with first-medical consultation waiting times for dermatology maintained at less than 60 days and STI services achieving access times of less than three days for symptomatic patients and under 14 days for asymptomatic individuals. The economic impact has been substantial, with the model achieving cost avoidance and annual savings of S$291,560 for patients accessing nurse-led services compared to doctor-performed treatments in subsidised clinics.

Conclusion

NSC's successful implementation of generational knowledge transfer in nursing specialisation demonstrates the effectiveness of sustainable skill development in healthcare settings. This model, underpinned by robust clinical protocols, standardised algorithms, and regular audits, enables healthcare institutions to build sustainable specialised nursing capabilities while maintaining high-quality care standards through successive generations of nursing professionals. it highlights the potential for nursing professionals to take on expanded roles in specialised healthcare delivery when supported by structured training and clear clinical governance frameworks. This model not only enhances healthcare accessibility and efficiency but also contributes to professional nursing development and career advancement opportunities.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

INTEGRATING HEALTH INSURANCE LITERACY INTO MEDICAL HUMANISTIC EDUCATION: BROADENING THE SCOPE OF PATIENT-CENTERED CARE

Ding S

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Background and Aims
Medical humanism embodies the humanistic spirit within healthcare, emphasizing empathy, respect, and care for patients. It reflects medicine's essential attitude toward life. The cultivation of medical humanistic care should extend throughout medical education and the professional life of healthcare providers. In modern healthcare, humanistic care also requires attention to patients' financial burdens, which are increasingly significant in the context of rapidly advancing medical technologies and rising treatment costs.

Methods
This paper conceptually explores the integration of health insurance literacy into medical humanistic education. Based on relevant literature, observation and interviews, it discusses the significance, necessity, and urgency of enhancing medical students' and healthcare practitioners' understanding of health insurance. The awareness of health insurance literacy can strengthen doctor-patient communication, promote shared decision-making, support the implementation of patient-centred care, and further mitigate doctor-patient conflicts.

Results
Physicians with sufficient literacy in health insurance are better equipped to address patients' concerns about treatment affordability and to provide more comprehensive, compassionate support. Health insurance literacy-including the ability to obtain and assess insurance information, make informed decisions, and effectively utilise benefits-enables healthcare providers to help patients mitigate the financial risks of serious illnesses. Concern for patients' ability to afford care thus constitutes a vital aspect of medical humanism.

Conclusion
Integrating health insurance literacy into the framework of medical humanistic education expands the scope of patient-centred care and enhances its practical relevance. Strengthening medical students' and practitioners' awareness of health insurance contributes to more holistic and empathetic care for patients with major diseases, and fosters the development of truly humanistic physicians in modern medical practice.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

RESILIENCE AND ACADEMIC PRESSURE AFFECTING TO THE ACADEMIC ACHIEVEMENT OF MEDICAL STUDENTS IN THE STRENGTHENING TRACK

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Background and Aims
Resilience involves cognitive and emotional processes that enable individuals to adapt and cope with life events. Presently, this concept is increasingly being used to enhance mental health of medical students. Meanwhile, academic pressure are thoughts and feelings individuals have about the difficulty of content and expectations. When encountered with disappointments, these pressures can lead to stress and anxiety. Medical students encountered high academic pressure because medicine was a difficult field and involves the lives of patients. Therefore, this research aims to explore the relationship between resilience and academic pressure affecting the academic achievement of medical students in the strengthening track (ST).

Methods
A mix-method research with a population of 56 sixth-year medical students in academic year 2024 from the Faculty of Medicine at Naresuan University. The instrument was an online questionnaire developed from the resilience scale by Martin and Marsh (2003) and the academic pressure scale by Ford and Schroeder (2009). Statistical were Chi-square and One-way ANOVA, with a significance level set at 0.05. Additionally, focus group discussions were conducted with 10 medical students using open-ended questions.

Results
Majority of medical students were over 30 years old (53.6%) and GPA <3.25 (55.4%). The levels of resilience and academic pressure among medical students were relatively high, with scores of 3.54±0.76 and 3.5±0.80, respectively. Additionally, the results found that resilience and academic pressure were significantly correlated with GPA at the 0.05 significance level. However, focus group discussions demonstrated that medical students possessed resilience skills from their life experiences, as they were the ST group who had previously completed their undergraduate studies, thus giving them a better ability to manage problems.

Conclusion
This research shows that medical students in the medicine programme encountered stress and pressure which may have affected their academic achievement. Even though medical students understand resilience skills in managing their mental health, academic pressure experienced during their studies, remains a significant factor contributing to decreased academic performance. Medical schools should promote mental health development activities for medical students using resilience skills as the basis of development. This approach will help medical students understand their own issues and reduce the academic pressure they encounter in their lives. Furthermore, resilience skills will support medical students in achieving better mental health and an improved quality of life.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

HEALTH-PROMOTING BEHAVIOURS OF NURSING STUDENTS AT THE UNIVERSITY OF MEDICINE AND PHARMACY AT HO CHI MINH CITY AND RELATED FACTORS

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Background and Aims
Health-promoting behaviours are increasingly important for students in today's diverse living and learning environments. Nursing students, in particular, will be future healthcare providers, significantly impacting the health of individuals and communities. This study aims to survey health-promoting behaviours among nursing students at the University of Medicine and Pharmacy at Ho Chi Minh City and identify related factors.

Methods
A descriptive cross-sectional study was conducted among 391 nursing students from year one to year four using an online and offline survey method. A quota sampling technique was employed. Data was collected using a demographic questionnaire and the Health Promoting Lifestyle Profile II (HPLP II). Statistical analyses included T-tests, Pearson correlation, ANOVA, Kruskal-Wallis tests, and multiple regression models

Results
The study results indicated that nursing students exhibit moderate health-promoting behaviours, with an average score of 2.47 ± 0.42. The subscale of spiritual growth had the highest mean score, while physical activity had the lowest. Significant relationships were found between health-promoting behaviours and factors such as age, academic performance, club/team/group participation, and regular health check-ups.

Conclusion
Nursing students at the University of Medicine and Pharmacy at Ho Chi Minh City show moderate levels of health-promoting behaviours. Efforts should focus on improving physical activity, fostering a supportive environment for club and group participation, and encouraging regular health check-ups. Future research could incorporate the Health Promotion Model to assess factors such as perceived self-efficacy and benefits, and expand the survey to include other health students for more tailored interventions.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ACTIVE ENGAGEMENT WITH LEARNERS IN CO-CREATING AND COLLABORATIVE KNOWLEDGE BUILDING BY CREATING MULTIPLE-CHOICE QUESTIONS

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Background and Aims
Higher-order thinking activities, such as writing-to-learn and question generation, have been shown to enhance examination performance and promote long-term retention. One promising approach is the creation of student-generated multiple-choice questions (MCQs), which supports retrieval practice and it is a proven strategy to strengthen memory recall. The process of generating MCQs encourages deeper engagement with course content and promotes critical thinking, metacognitive awareness, and collaborative learning. This study explores how collaborative MCQ creation influences student motivation, engagement, and academic performance, while also examining students' perceptions of the learning experience.

Methods
Seventy-six second-year undergraduate students enrolled in PHS2101 Physiology for Pharmaceutical Sciences participated in this study, which focused on the nervous and musculoskeletal systems contributing to Continuous Assessment II (CA2). Students were organised into 13 groups of five to six members and encouraged to submit at least one MCQ per lecture, each with four-answer choices and an explanation of the correct answer. Submitted questions were reviewed by an instructor and uploaded to Canvas for peer practice. These quizzes were ungraded. Student performance in CA2 was analysed in relation to the number of MCQs created and answered. The cognitive level of student-generated MCQs was categorised using Bloom's Taxonomy. Motivation and engagement were assessed using the Self-Determination Theory (SDT) framework and the Intrinsic Motivation Inventory (IMI) via a post-module survey.

Results
Of the 76 students, 64 (from 11 groups) created at least one MCQ. The average CA2 scores were similar between students who created MCQs (37.37) and those who did not (37.71). However, students who created MCQs showed slightly greater improvement from their CA1 scores (6.84% vs. 6.42%). Students who created questions for both systems (n=28) demonstrated the greatest improvement (7.77%). Those who both created and answered MCQs (n=23) achieved the highest average CA2 scores (38.02). Analysis of the MCQs showed that 68.6% were at the "Remember" or "Understand" levels, while 31.4% reached the "Apply" or "Analyse" levels. The overall need satisfaction score was 3.39±0.77, with autonomy rated highest (3.41±0.73), followed by competence (3.41±0.88) and relatedness (3.39±0.77). IMI results indicated positive responses, particularly in perceived value/usefulness (3.85±0.76) and interest/enjoyment (3.21±0.73) related to creating MCQs. Answering peer-generated MCQs was rated even higher in value/interest (4.40±0.66). Qualitative responses revealed that creating MCQs supported deeper understanding, content reinforcement, self-assessment, and higher-order thinking. Answering MCQs helped identify misconceptions, clarify concepts, and improve exam readiness. Suggestions for improvement included enhanced structure, clearer guidance, better alignment with exams, and increased practice opportunities.

Conclusion
Collaborative MCQ creation and answering are complementary active learning strategies that enhance conceptual understanding, motivation, and metacognitive skills. MCQ creation encourages higher-order thinking, synthesis, and conceptual ownership because it is generative in nature, as students construct knowledge by designing questions. In contrast, MCQ answering promotes reflection, self-assessment, and efficient validation of learning because it is evaluative in nature, as students test and confirm what they know. Both contribute to conceptual clarity through different cognitive routes. Together, these practices promote autonomous, engaged, and deep learning in health education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

INTEGRATING BASIC SCIENCES IN MEDICAL EDUCATION (ME): STUDENTS' PERSPECTIVES FROM ACROSS THE GLOBE

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Background and Aims
Basic sciences form a foundation of Medical Education, providing essential knowledge that supports clinical training. Despite their importance, there are no universally accepted guidelines for their inclusion or structure within medical curricula. The integration of basic sciences varies significantly across regions, influenced by differing educational models and priorities. This project, led by the International Federation of Medical Students' Associations (IFMSA), aims to explore how basic sciences are embedded in Medical Education Systems globally – with a particular focus on trends and practices in the Asia-Pacific region.

Methods
As part of its commitment to advancing Medical Education globally, IFMSA launched the Medical Education Systems (MES) Programme, a global initiative that empowers medical students to critically assess, share, and improve their national curricula. The MES Programme supports local and international activities that promote dialogue, comparative research, and evidence-based advocacy led by students.

In 2018, IFMSA conducted the first Global Medical Education Systems Assessment, a comprehensive survey capturing students' perspectives on their preclinical and clinical training. This effort gathered input from 83 countries and informed numerous advocacy and capacity-building activities. Since then, 296 MES-related initiatives have been reported by students worldwide.

To build on this foundation, IFMSA is re-launching the assessment in 2025 to gather updated insights, focusing particularly on how basic sciences are structured and integrated. The analysis will compare 2018 and 2025 data, with special emphasis on trends from the Asia-Pacific region.

Results
The 2018 assessment revealed wide variation in preclinical curricula. While core subjects such as Anatomy, Physiology, Biochemistry, and Histology appeared in over 95% of responses, areas like Behavioural Sciences and Neuroscience were included in fewer than half. These findings highlight both global consistency in foundational disciplines and disparities in incorporating interdisciplinary or evolving content.

The upcoming analysis will explore curricular changes since 2018, spotlight regional innovations and examine student perspectives on the effectiveness of basic science integration. A final report of analysis, as well as recommendation will be presented at AMPEC 2026.

Conclusion
The findings above underscore global variability in how basic sciences are incorporated into medical education systems. Through this renewed assessment, IFMSA aims to amplify student voices, identify regional patterns, and support cross-contextual learning. With the Asia-Pacific region as a focus, this work contributes to broader efforts to strengthen medical education through evidence-informed, learner-centred approaches.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 10.45am

Hua Yue 2, Level 3

SHORT COMMUNICATIONS 8

Pumping Life into Surgical Simulation: Educational Impact of a Perfused Human Cadaveric Model in Advancing Coronary Artery Bypass Graft (CABG) Training
Chia Xuan Teoh, Malaysia

Critical Thinking and Associated Factors Among Senior Nursing Students
Nhan Nguyen Thi, Vietnam

The Application of Theatre-Based Teaching in Cultivating Empathy Among General Dentistry Residents
Sai Hu, China

Using Thyroid Ultrasound AI to Train Medical Students in Evaluating the Malignancy Risk of Thyroid Cancer
Sarawadee Chatchavan, Thailand

An Innovative Peer-Assisted Learning Model for Medical English Based on Narrative Medicine: An Empirical Study in China
Hao-Yu Lin, China

Establishing the "Full-Process Quality Management Campaign Month" Mechanism to Underpin Quality Control Throughout the Entire Postgraduate Training Process
Huang Xi, China

An Immersive Learning Design for Virtual Reality (VR) Temporal Bone Dissection Training and Assessment
Abhilash Balakrishnan, Singapore

Learnanatome.Com: Transforming Anatomy Education Through Interactive Digital Innovation
Sara Kashkouli Rahmanzadeh, Singapore

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

PUMPING LIFE INTO SURGICAL SIMULATION: EDUCATIONAL IMPACT OF A PERFUSED HUMAN CADAVERIC MODEL IN ADVANCING CORONARY ARTERY BYPASS GRAFT (CABG) TRAINING

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Background and Aims
Simulation-based training plays a crucial role in refining medical education in a safe and controlled environment. Human cadaveric models are favoured for their anatomical realism, while we believe that their educational value may be further enhanced by integrating circulation to better replicate real-life operative scenarios. This study evaluates the feasibility and educational impact of a perfused human cadaveric model who has preserved using rapid freezing technology for coronary artery bypass grafting (CABG) training. Specifically, trainee confidence and perceived technical fidelity between perfused and non-perfused human cadaveric models are measured.

Methods
This prospective study recruited 21 doctors undergoing Higher Surgical Training in Cardiothoracic Surgery in Malaysia. Trainees, following standardised theoretical preparatory instructions, were randomly assigned to four groups for two six-hours training rounds: one group practiced with perfused human cadaveric model, while three groups practiced with non-perfused human cadaveric models in training round one, then alternated in training round two. Pre- and post-training confidence in coronary anastomosis and bleeding control were assessed using 5-point Likert scale questionnaires. Trainees' perception of the realism of both simulation models was assessed across five key domains using a 5-point Likert scale: the overall training experience, simulation of bleeding control, anatomical fidelity, and graft harvesting and anastomosis.

Results
Trainees exposed to the perfused model showed significantly greater confidence in bleeding control (median = 4.0, IQR = 3.5 - 5.0) than those trained solely on non-perfused models (median = 3.0, IQR = 3.0 - 4.0), p = 0.031. No significant difference was observed for coronary anastomosis confidence (p = 0.536). Across all the key domains of realism, the perfused human cadaveric model demonstrated a statistically significantly higher overall agreement trend. Notably, 87.5% of 5-point Likert scale responses for overall training experience with perfused model fell in the 'Agree' category, compared to only 26% for the non-perfused model. Perceived realism in bleeding control demonstrated the most notable contrast, with 62.5% 'Agree' responses in the perfused group versus just 23% in the non-perfused group, which also saw 46% disagreement. Anatomical fidelity was similarly rated higher for the perfused model (75% 'Agree' vs 54%). However, perceptions of graft harvesting and anastomosis realism showed a more dispersed opinion across the Likert scale, but with a trend toward more positively skewed responses and lower ratings in the 'Somewhat disagree' and 'Disagree' category in the perfused model compared to the non-perfused model.

Conclusion
This study demonstrates that perfused human cadaveric models significantly enhance the realism and educational value of surgical simulation, particularly in bleeding control and anatomical fidelity which are the core competencies in training. These findings support the integration of perfusion technology into simulation-based education to strengthen experiential learning and better prepare trainees for real-world challenges.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

CRITICAL THINKING AND ASSOCIATED FACTORS AMONG SENIOR NURSING STUDENTS

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Background and Aims
Critical thinking (CT) is essential for making accurate, rational clinical decisions and ensuring patient safety, particularly for senior nursing students as they prepare to transition into professional practice. In Vietnam, however, the critical thinking skills of nursing students remain limited and are shaped by a range of influencing factors. Investigating this issue is important not only for evaluating the current state of critical thinking among nursing students but also for identifying strategies to improve educational quality and align training with the practical demands of the healthcare system.

Objective: To assess the critical thinking abilities of senior nursing students and examine associated factors at the University of Medicine and Pharmacy at Ho Chi Minh City.

Methods
A cross-sectional descriptive study with an analytical component was conducted among all senior nursing students at the Faculty of Nursing and Medical Technology, University of Medicine and Pharmacy at Ho Chi Minh City, between May and July 2022. The Watson-Glaser Critical Thinking Appraisal (WGCTA), comprising 40 items, was translated into Vietnamese and verified for linguistic accuracy prior to administration. The questionnaire was distributed via an online platform to assess students' critical thinking abilities. Data was analysed using SPSS version 20.0, employing statistical methods including the independent samples t-test, one-way analysis of variance (ANOVA), and Pearson's correlation coefficient.

Results
The average critical thinking score among the students was 22.31 ± 3.79. A majority of the participants (86.7%) demonstrated weak critical thinking skills, while 12.1% exhibited an average level, and only 1.2% were categorised as having strong critical thinking abilities. A statistically significant association was observed between critical thinking scores and part-time employment ($p = 0.01$), with students engaged in part-time work achieving higher scores than their non-working peers. In contrast, no significant correlations were found between critical thinking scores and variables such as gender, living arrangements, or semester grade point average ($p > 0.05$).

Conclusion
The findings of this study indicate that the overall critical thinking ability among senior nursing students is relatively weak. It is imperative for healthcare educators and instructors to systematically assess students' critical thinking skills and adopt pedagogical approaches that emphasize critical thinking, inquiry-based learning, and evidence-based practice. Furthermore, educators should provide increased opportunities for students to participate in part-time employment or clinical internships, as these experiences can contribute significantly to the development of critical thinking competencies. Enhancing critical thinking among nursing students is essential for the advancement of nursing education and the broader improvement of the healthcare profession.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE APPLICATION OF THEATRE-BASED TEACHING IN CULTIVATING EMPATHY AMONG GENERAL DENTISTRY RESIDENTS

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Background and Aims
Verbal and non-verbal communication, together with empathy, are central to doctor-patient communications and are closely associated with patient satisfaction. This study aimed to explore whether theatre-based training could enhance empathy among residency-trained general dentistry residents, and to inform the development of structured theatre courses for clinical communication training.

Methods
Fifteen general dentistry residents (year one to three) were enrolled. Four typical clinical scenarios of dentist-patient communication were identified and designed into theatre scripts. Participants engaged in one theatre-based session per week for one month. Quantitative data were collected using questionnaires and the Jefferson Scale of Physician Empathy (JSPE) before the intervention, immediately after, and three months post-intervention. Descriptive statistics and paired t-tests were conducted. In addition, semi-structured interviews with residents, faculty, and dental experts were carried out to explore learning experiences, perceived gains, and recognised communication challenges.

Results
Participants reported improved awareness of empathy and communication strategies, particularly in handling conflict and perspective-taking. JSPE scores showed a statistically significant increase after the intervention. Qualitative findings highlighted the value of role-reversal and improvisation in facilitating empathy development and in addressing common pain points in dentist-patient communication.

Conclusion
Theatre-based training appears to be an effective pedagogical approach for cultivating empathy among general dentistry residents. This intervention not only enhances measurable empathy scores but also contributes to the development of practical communication skills essential for clinical practice.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

USING THYROID ULTRASOUND AI TO TRAIN MEDICAL STUDENTS IN EVALUATING THE MALIGNANCY RISK OF THYROID CANCER

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Background and Aims

Thyroid cancer is one of the most common endocrine malignancies, and the accurate evaluation of thyroid nodules is crucial for effective diagnosis and management. Ultrasound is the first-line imaging modality for evaluating thyroid nodules in pre-screening patients for thyroid issues, helping prioritise cases that require more immediate attention. The medical student should practice and classified the malignancy risk with confident. AI tools can provide feedback and additional resources, enhancing learning outcomes during practical training to evaluate the malignancy risk of thyroid nodules.

Methods

Introduce students to thyroid anatomy, ultrasound physics, and the principles of ultrasound imaging and educate students on the characteristics of benign and malignant thyroid nodules based on established risk stratification systems (ACR TI-RADS). Then hands-on learning by conduct neck ultrasound examinations, using AI software that analyses ultrasound images for features suggestive of malignancy.

Practical Implementation Strategies

1. Simulation-Based Learning: Assess nodule characteristics and receive feedback on their performance through AI support.
2. Case-Based Discussions: Selected case studies of thyroid nodules with known pathology to challenge students in interpreting ultrasound findings and determining management strategies.
3. Assessment: Use pre- and post-training assessments to evaluate students' understanding of thyroid ultrasound, AI integration, and assessing their ability to appropriately interpret ultrasound findings and discern patient malignancy risks.

Results

The pre and post test scores to evaluate the malignancy risks are 50.8% and 95.0%, respectively. The most missed diagnosis findings of malignant are echotexture, microcalcifications and shape/border. Utilising AI in thyroid ultrasound training presents an opportunity to enhance the educational experience for medical students. By embedding AI-based tools into the curriculum, students can develop the necessary skills to evaluate the malignancy risk of thyroid cancer effectively. This proactive approach not only prepares future clinicians to leverage advanced technologies but also improves patient care through enhanced diagnostic capabilities.

Conclusion

Conduct studies to evaluate the effectiveness of AI-assisted training in improving student competency in thyroid ultrasound and risk assessment for thyroid cancer, determining long-term retention of skills. This document outlines an educational framework for utilising AI in thyroid ultrasound training, emphasizing its benefits for medical students, practical implementation strategies, and future directions. The continued development and integration of AI within medical education will undoubtedly shape the future of diagnostic imaging and patient management.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

AN INNOVATIVE PEER-ASSISTED LEARNING MODEL FOR MEDICAL ENGLISH BASED ON NARRATIVE MEDICINE: AN EMPIRICAL STUDY IN CHINA

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Background and Aims
Medical English is essential in the global medical field, especially for non-English-speaking medical students in China. Traditional teaching methods often lead to poor engagement and suboptimal outcomes result in a lack of active participation. This study explores a novel strategy combining narrative medicine and peer-assisted learning (PAL) to enhance medical English learning.

Methods
128 first-year medical students from Shantou University Medical College were randomly assigned to experimental and control groups (n=64 each). The experimental group used the PAL method, where senior students mentored first-year students in groups of eight for three months. The control group used a conventional teacher-centred lecture approach. Both groups learned through narrative medicine based on storytelling cases. Based on the Knowledge-Skills-Attitudes (KSA) framework, 19 indicators were identified through literature review and the Delphi method to assess student performance and growth in medical English learning. These indicators helped develop a 5-point Likert scale and an end-of-course presentation evaluation guide.

Results
The Likert scale experimental group (M=77.42, SD=7.45) scored significantly higher than the control group (M=68.00, SD=7.31) ($P<0.05$), indicating better outcomes in knowledge, skills, and attitudes. However, no significant differences were found in 'critical thinking development' and 'simulated patient communication in medical English', indicating these areas may need further focus. Additionally, no significant differences were found in final presentation scores. Post-course feedback showed that most students in the experimental group accepted and favoured this teaching model, maintaining high interest in continuing active medical English learning.

Conclusion
This study explored the effectiveness of the PAL method combined with narrative medicine in medical English education, particularly in promoting active learning, skill development, and understanding of medical content. Although short-term improvements in medical English proficiency were limited, the approach provides valuable insights for reforming medical English education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ESTABLISHING THE "FULL-PROCESS QUALITY MANAGEMENT CAMPAIGN MONTH" MECHANISM TO UNDERPIN QUALITY CONTROL THROUGHOUT THE ENTIRE POSTGRADUATE TRAINING PROCESS

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Background and Aims

To implement the guiding principles of the National Postgraduate Education Conference, West China School of Medicine has been organising the "Full-Process Quality Management Campaign Month" annually since 2019. This initiative is dedicated to deepening the reform of postgraduate education and enhancing the quality of talent cultivation. As a flagship program of the school for fostering virtue through education and nurturing top-tier innovative medical talents, it has established a strong demonstration effect and gained wide recognition.

Methods

The campaign emphasizes the strengthening of the supervisor team and puts forward four key requirements:

- Enhancing supervisors' professional ethics and conduct;
- Rigorously conducting supervisor assessments;
- Advancing quality-oriented education;
- Implementing full-process quality management.

The campaign adheres to the principle of "shifting quality control to the early stages" in postgraduate training, abandoning the end-of-program evaluation model. Instead, it promotes whole-process assessment and reinforces requirements for academic standards and ethics at critical stages. Concurrently, a one-month exhibition tour of training quality boards is held, focusing on displaying exemplary cases and warning cases in the postgraduate training process to facilitate learning and improvement among all supervisors and postgraduates of the school.

Results

This initiative serves as a key reform measure for West China School of Clinical Medicine, Sichuan University, to implement the national postgraduate education deployment. The continuous advancement of this initiative will further promote the high-quality development of medical talent cultivation.

Conclusion

West China School of Clinical Medicine, Sichuan University holds the "Whole-Process Quality Management Activity Month" annually. As a brand activity for fostering virtue through education and cultivating top-notch innovative medical talents, it strengthens tutor development and the whole-process evaluation of postgraduate training. This activity is a reform measure to implement national arrangements, demonstrates outstanding educational concepts, and serves as a key initiative to promote the high-quality development of medical talent cultivation.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

AN IMMERSIVE LEARNING DESIGN FOR VIRTUAL REALITY (VR) TEMPORAL BONE DISSECTION TRAINING AND ASSESSMENT

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Background and Aims
Traditional temporal bone in ENT training uses cadavers for surgical trainees to learn and develop technical skills. However, cadaveric training is expensive and requires dedicated dissection laboratories. Often, junior trainees also do not optimise the use of cadavers due to insufficient knowledge and experience. Assessment is also labour intensive as assessors need to be in constant attendance. We aim to develop a three-dimensional virtual reality simulator to overcome these challenges.

Methods
A 3D VR simulation model for temporal bone drilling was developed and a pilot study was conducted with all residents in the Singhealth Otolaryngology Residency Programme (n=14). Participants were purposively sampled and assigned into two groups. Group one underwent VR simulated temporal bone dissection exercise prior to embarking on the cadaveric temporal bone dissection exercise. Group two performed vice versa. Prior any dissection exercise, all participants completed an online module on temporal bone anatomy and orientation to the VR equipment. All participants were given specific surgical tasks to complete. They were evaluated on pre- and post-activity questionnaires on self-perceived competency and skills before and after using the VR simulator. In addition, scores were collected for the System Usability Scale (SUS), Technology Acceptance Model Scale (TAMS). The Zirkle Assessment Checklist was used to evaluate technical performance. Automated scoring metrics were recorded during VR simulation sessions and compared with expert post-session evaluation VR scores.

Results
Participants in both groups scored higher in self-perceive competency and skills after using the VR simulator (pre-score and post-scores = 5.2 vs 6.6 and 5.75 vs 7; $p<0.01$). Participants gave the simulator a SUS of 66% and TAMS of 77%. 64.2% found the VR system easy to use and 78.5% believed most people would learn to use the VR system easily. 87% of residents reported the training improved their skills and 80% would use the simulator again and recommend it to others. Trainees who used the VR simulator first showed a 24% increase in overall Zirkle score in their second (cadaveric) session, while those who did cadaveric dissection first did not show an increase in their second (simulator) session. There was only a 9% difference in annotation scores between automated assessment and expert post-review evaluation of VR simulator performance.

Conclusion
The prototype VR simulator showed positive outcomes and impact for the residents in improving skills, confidence, and acceptability of the technology. VR simulation appears a well-received and viable alternative as an adjunct for surgical training and assessment.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

LEARNANATOME.COM: TRANSFORMING ANATOMY EDUCATION THROUGH INTERACTIVE DIGITAL INNOVATION

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Background and Aims
In the ever-evolving landscape of anatomy education, digital platforms are increasingly shaping the future of anatomy education by offering accessible and engaging experiences. Among these is LearnAnatome.com which is a comprehensive online resource designed to support the study of gross and developmental anatomy. With its intuitive interface and suite of interactive tools, LearnAnatome.com aims to accommodate diverse learner preferences while enhancing conceptual understanding.

Methods
This study aims to evaluate the pedagogical impact and user experience of LearnAnatome.com as an anatomy learning tool. Specifically, objectives include measuring user engagement through platform analytics, assessing student satisfaction through structured surveys. By addressing these objectives, we seek to provide a comprehensive understanding of the impact and efficacy of LearnAnatome.com in anatomy education.

Results
Preliminary data indicates strong outcomes across the stated metrics. User engagement metrics indicate high levels of activity and interaction within the platform, with users accessing LearnAnatome.com frequently, and engaging with its features. Student feedback indicates student improvement in anatomical knowledge retention and comprehension. User feedback and satisfaction surveys also highlight positive perceptions of the platform's effectiveness, usability, and overall learning experience.

Conclusion
In conclusion, the findings of this research support the effectiveness and quality of LearnAnatome.com as a user-centred digital learning tool for anatomy education. By combining user-centred design principles, accessibility, and curriculum relevance, it enhances learner engagement and supports academic learning outcomes. Future iterations and updates of the platform will focus on expanding content coverage, refining analytics, and integrating adaptive learning features to further personalise the educational experience.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 10.45am

Paris Hall & Rome Hall, L5

SHORT COMMUNICATIONS 9

Experience in Using Commitment-to-Change Statements in the AO Faculty Education Programme
Woei Yun Siow, Singapore

SPOC-Enabled Flipped Classroom vs. Lecture-Based Learning for Obstetric Ultrasound Residents: A Randomised Evaluation
Chenke Pan, China

The Impact of Hospital-Level Supervision and Interactive Feedback Model on the Ideological and Humanistic Teaching Competence of Resident Training Instructors
Jingyan Zhan, China

The Relationship Between Instructor-Immediacy and Nursing Students' Learning Motivation in Clinical Practice
Thi Thu Huong Phan, Vietnam

Weaving Primary Palliative Care Training into a Family Medicine Residency Program in Singapore – A Pilot
Rachel Lu, Singapore

Co-Designing Sustainable Resources to Enhance Planetary Health Education in the Undergraduate Medical Curriculum
Kyi Tha, Malaysia

Toward an Educational Ecosystem in Internal Medicine: Strategies for Faculty Development and Community Building
Yuling Yan, China

Empathy of Medical Students: The Results of Community-Based Learning and Practical Training at Community Hospital on the Thai-Myanmar Border
Thitima Chueathong, Thailand

Assessment of Communication Skills Among Some Final-Year Students of Mongolian National University of Medical Sciences
Uzmee Mendsaikhan, Mongolia

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EXPERIENCE IN USING COMMITMENT-TO-CHANGE STATEMENTS IN THE AO FACULTY EDUCATION PROGRAMME

Siow WY

Urology Centre, Raffles Hospital, Singapore

Background and Aims
The AO Foundation endeavours to deliver quality education to Orthopaedics surgeons worldwide. To achieve this, the AO Faculty Education Programme (FEP) was initiated to elevate and standardise the teaching quality of its faculty. Effecting a change in teaching behaviour after the FEP course is a common challenge. Commitment-to-change (CTC) statements are proven to increase the likelihood of a change in behaviour. We describe our experience in implementing CTC statements in the AO FEP and the effect on change in behaviour.

Methods
The FEP course runs over six-weeks. It includes five weeks of online learning beginning with a self-assessment, and then one-and-a-half days of live event followed by one week of online follow-up, which includes a post-course self-assessment. The intended learning outcomes of the FEP include: prepare and present a lecture, moderate a small group discussion, instruct in practical exercises, motivate learners, encourage interaction, receive and give feedback, evaluate and improve one's own teaching, work with outcomes in teaching strategies, set reasonable expectations of a teaching or learning activity, use information about learners (e.g., learners' needs and cultural context in the educational process) and also manage time and logistics.

At the end of the offline event, each participant filled in a CTC statement describing one or more changes in teaching behaviour that he/she would commit to. One copy of this was returned to the participant and another retained by AO. Three months after the course, an email questionnaire was sent to each participant to follow-up on his/her CTC. Extent of change in behaviour was categorically divided into "full", "partial" or "nil". The reasons were documented using free text and the number of learners taught by the participant within this same period was recorded.

The effect of CTC statements on change in behaviour was evaluated. Convenience sampling of 71 participants (with 100% response rate) from five FEP courses conducted from 2018 to 2023 was analysed.

Results
Full CTC was reported by 38 participants (53.5%). Partial CTC was reported by 28 participants (39.4%). No CTC was reported by 5 participants (7%). Thus, 66 participants (93%) made some changes in their teaching behaviour after the FEP course. Common barriers to change include "no opportunity to us", "too busy" and "staged (incremental) changes". Other barriers include "comfortable with previous style", "lack of feedback" and "lack of favourable response to attempted change in behaviour". Overall, 2431 learners were taught by the participants in the same period.

Conclusion
CTC statements promote reflection, motivation and accountability to change behaviour. Barriers to change may be internal or external. Upon completing the FEP course, additional coaching may be even more useful in effecting change in teaching behaviour. The AO foundation should actively engage FEP participants as faculty in AO teaching activities immediately after they complete their FEP courses. Overall, our experience shows that it is feasible to include CTC statements in FEP courses. CTC increases the likelihood of change in behaviour. Better awareness of the barriers to change allows the AO foundation to address these barriers and further increase the likelihood of change.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

SPOC-ENABLED FLIPPED CLASSROOM VS. LECTURE-BASED LEARNING FOR OBSTETRIC ULTRASOUND RESIDENTS: A RANDOMISED EVALUATION

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Background and Aims
Training competent obstetric sonographers is pivotal for timely identification of fetal anomalies, yet conventional lecture-based learning (LBL) can limit active engagement and hands-on transfer. Blending a Small Private Online Course (SPOC) with a flipped classroom may better align with competency-based medical education by moving content acquisition outside class and reserving in-person time for image interpretation, probe handling, and clinical decision-making. We evaluated whether this model improves knowledge, practical skills, and learner experience in standardised residency training.

Methods
In a single-centre randomised study, 24 first- and second-year ultrasound residents (September 2024-July 2025) were allocated to a flipped model (SPOC + in-class application; n=12) or traditional LBL (n=12). The curriculum, faculty, and assessment windows were identical. The flipped group completed structured pre-class micro-lectures, annotated reading, and short quizzes on the SPOC; class sessions emphasized case-based discussion, image optimisation drills, and peer feedback. Outcomes included pre/post theoretical tests (A1-A4 formats), a structured practical exam covering 12 domains (0-100), a 9-item Likert satisfaction survey, and time metrics (learner study time and teacher preparation time). Group differences were analysed with independent t-tests or Wilcoxon tests (Î±=0.05).

Results
All residents completed the protocol. Baseline characteristics and pre-test scores were comparable (flipped 72.7±8.6 vs. LBL 75.7±7.7; P>0.05). The flipped group achieved higher post-test knowledge scores (87.1±5.5 vs. 81.3±5.7; P=0.02) and substantially better practical performance (91.5±3.1 vs. 83.5±5.6; P<0.001), with gains most pronounced in probe manipulation, standard-plane acquisition, and Doppler parameter selection. Learner-reported outcomes favoured the flipped model for perceived improvements in knowledge integration, image interpretation, initiative, and clinical reasoning (all P≤0.018 except recognition of sonographer role, P=0.111). Time investment increased for residents in the flipped arm for both pre-class and post-class study (48.0±6.1 vs. 33.1±6.7 minutes; 30.2±4.1 vs. 24.5±2.8 minutes; both P<0.01). Faculty workload was also higher: implementing the flipped approach required >42 hours of pre-class content preparation and ~4 hours of post-class review, compared with ~9 hours total for LBL.

Conclusion
A SPOC-enabled flipped classroom outperformed LBL on knowledge acquisition, practical skills, and learner-reported outcomes in obstetric ultrasound residency training, albeit with greater time demands for learners and faculty. These findings support embedding flipped, competency-oriented designs-front-loading foundational content online and using face-to-face time for coached practice and higher-order reasoning. Future work should evaluate multicentre generalisability, longitudinal retention, objective workplace-based outcomes, and cost-effectiveness, and should refine faculty development and content authoring workflows to reduce preparation burden.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE IMPACT OF HOSPITAL-LEVEL SUPERVISION AND INTERACTIVE FEEDBACK MODEL ON THE IDEOLOGICAL AND HUMANISTIC TEACHING COMPETENCE OF RESIDENT TRAINING INSTRUCTORS

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Background and Aims
Medical ideological, humanistic education is conducive to improving doctor-patient relationships and enhancing the professional identity of resident physicians. However, since China began to build medical humanistic quality education in the 1980s, the start of humanistic education is relatively late. Instructors pay less attention to integrating ideological and humanistic education into daily teaching and have great confusion about how to effectively integrate it. We would like to explore the effectiveness of hospital-level supervision in enhancing the ideological and humanistic teaching competence of instructors.

Methods
Based on the “Resident Standardised Training Teaching Case Review Guide (2022 Edition)” released by the Chinese Medical Doctor Association, a hospital-level supervision expert group with fixed members was established to conduct biannual hospital-level supervision in medical technology departments. Both the supervision experts and the participating resident physicians scored on-site. A roundtable discussion session was set up, where the supervision experts provided feedback and guidance to the instructors and offered personalised suggestions for the problems identified.

Results
From 2023 to 2025, a total of five hospital-level supervisions were completed. The scores given by the supervision experts to the instructors’ medical humanistic and ideological education competence (out of a maximum of five points) gradually increased, specifically: 4.21 (first half of 2023), 4.31 (second half of 2023), 4.54 (first half of 2024), 4.57 (second half of 2024), and 4.81 (first half of 2025). The satisfaction scores of resident physicians with the instructors’ ideological and humanistic teaching (out of a maximum of 5 points) also gradually increased, specifically: 4.03 (first half of 2023), 4.28 (second half of 2023), 4.59 (first half of 2024), 4.73 (second half of 2024), and 4.94 (first half of 2025). The departments of pathology, laboratory medicine, radiology, ultrasound, nuclear medicine, and interventional therapy have developed medical ideological and humanistic integration and teaching methods with departmental characteristics.

Conclusion
Hospital-level supervision has a significant effect on enhancing the ideological and humanistic teaching competence of resident training instructors, and the satisfaction of resident physicians has also gradually increased. The final expert on-site feedback and discussion sessions of hospital-level supervision are particularly important. The brainstorming format similar to roundtable discussions not only enhances the emphasis of resident training instructors on ideological and humanistic education but also directly solves the teaching problems identified during supervision and enriches the integration forms of ideological and humanistic education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE RELATIONSHIP BETWEEN INSTRUCTOR-IMMEDIACY AND NURSING STUDENTS' LEARNING MOTIVATION IN CLINICAL PRACTICE

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Background and Aims
Background: Learning motivation is critical for nursing students' success in clinical practice, where instructor-student dynamics play a significant role. Instructor immediacy-nonverbal behaviours that reduce psychological distance-is a key factor in fostering this motivation, yet its impact remains underexplored in the Vietnamese context.

Aims: To identify mean score of instructor immediacy and learning motivation; to explore the relationship between the learning motivation of nursing students and instructor immediacy, participant characteristics in clinical practice at a Vietnamese university.

Methods
A cross-sectional study was conducted with 313 first, second, third year nursing students who completed at least one clinical rotation, using the Nonverbal Immediacy Scale-Observer Report (NIS-O) and the State Motivation Scale (SMS) for data collection.

Results
The mean scores for instructor immediacy and learning motivation were 100.38 (±11.02) and 60.70 (±10.97), respectively, with both considered to be at a moderate level. The study revealed a statistically significant, weak, positive correlation between instructor immediacy and student motivation (r=0.196, p<0.001). Specifically, positive gestures were positively associated with motivation, while negative gestures showed a negative association. Furthermore, a regression analysis indicated that instructor immediacy, combined with the year of study, accounted for 21.8% of the variance in learning motivation (RÂ²=0,218, p<0,001).

Conclusion
Mean scores of nursing student learning motivation and instructor immediacy were at moderate level. The research provided evidence that instructor immediacy was a meaningful predictor of nursing students' motivation in clinical practice. The findings highlight the importance of training instructors in effective immediacy behaviours to enhance the educational experience, though future research should expand beyond the study's single-institution sample to validate these results.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

WEAVING PRIMARY PALLIATIVE CARE TRAINING INTO A FAMILY MEDICINE RESIDENCY PROGRAMME IN SINGAPORE – A PILOT

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Background and Aims

The call for family physicians (FPs) to integrate primary palliative care (PPC) into chronic disease management has been sounded. The burden of multimorbidity in Singapore's soon-to-be superaged society continues to overwhelm the current health care infrastructure. Assimilating proactive palliative care earlier in a patient's disease trajectory has shown to reduce hospitalisations and healthcare cost, and this starts in the ambulatory primary care setting. Therefore, weaving PPC training into the residency programme is strategic in empowering residents of today for the healthcare landscape of tomorrow.

Effective PPC education rests upon:

a) Appropriate contextualisation: Existing training programmes may not adequately address the challenges faced in Singapore's ambulatory primary care clinic setting (including short consultation time, lean support structures and opioid access limitations).
b) A shift from a symptom-based heuristic to a trajectory-based one in order to overcome prognostic paralysis: Unless the FP is able to perceive where a given patient with a serious illness sits on his/her disease trajectory, PPC cannot be activated.
c) Authentic modelling: Precedence in PPC is lacking, therefore residents need to witness how PPC is done.

The specific aim of this pilot was to test the effectiveness of a two-session workshop in increasing residents' self-reported confidence in administering PPC in the ambulatory primary care.

Methods

A cross-disciplinary team, comprising three family physicians with palliative care interest and four palliative care specialists, developed content covering:

(a) Disease trajectory and early identification of patients with palliative care needs
(b) Holistic assessment according to four commonly-encountered PPC archetypes: advanced CKD on conservative care, cancer, cardiorespiratory failure and frailty (dementia, Parkinson's disease, multimorbidity)
(c) Serious illness conversation and Advanced care planning
(d) Coordination of care

The format comprised two in-person workshop sessions, with didactic and small group teaching in equal parts. An unscripted video recording of a real patient interaction, and real PPC cases were used.

Results

Pre- and post- workshop survey analyses were conducted. Areas of confidence analysed comprised (a) identification of palliative care needs in clinic (b) holding serious illness or goals of care conversations (c) managing 4 above-mentioned PPC archetypes (d) coordinating care (e) prescribing low dose opioids. Other data collected included perceived relevance of PPC and awareness of resources. The results were stratified according to prior palliative exposure (none, >=1 month posting in palliative medicine, graduate diploma in palliative medicine, 3-day post graduate course in palliative medicine).

While most residents felt that PPC is relevant to their practice (average score of 4.34 out of 5), confidence in the above-mentioned areas and awareness of resources were found wanting (average scores ranged from 2.73 to 3.26). There was no consistent pattern identified between the scores and prior palliative care exposure. The faculty is excited to present post workshop analysis to the wider fraternity.

Conclusion

Our pilot has added strength to the hypothesis that prior palliative exposure does not equip FPs in delivering PPC in the clinic setting. This thoughtfully-crafted workshop was a heroic effort to pioneer PPC education in family medicine. We hope to advance the programme on the national level.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

CO-DESIGNING SUSTAINABLE RESOURCES TO ENHANCE PLANETARY HEALTH EDUCATION IN THE UNDERGRADUATE MEDICAL CURRICULUM

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Background and Aims
Teaching and learning activities for clinical skills in the undergraduate medical curriculum focus on safety and standard practices, such as hand hygiene and injection administration. The students learn the principles of hand hygiene and injection administration through the online module, hands-on practice sessions, followed by a competency assessment. While infection control and safe disposal of sharps are emphasized, there is a lack of focus on the broader implications of responsible waste disposal for planetary health. Therefore, this innovative post-learning activity aims to address this gap by highlighting the importance of responsible waste management after clinical skills practical sessions and promoting the knowledge and awareness of responsible waste disposal for planetary health among undergraduate medical students.

Methods
This activity employed a co-design approach. A team of five undergraduate medical student volunteers collaborated with a faculty member to develop interactive planetary health videos. Video one highlights the urgency of the planet's environmental challenges, emphasizing the impact of human activities on the crisis. It urges mindful resource use in healthcare and proper waste disposal to protect both the environment and public health. Small, responsible actions collectively create a significant difference. Video two focuses on the critical role of responsible waste disposal in promoting planetary health. In the laboratory, waste is carefully sorted, labelled, and securely stored, ensuring safety and environmental protection. Efficient waste management practices, including neutralization and sustainable disposal, minimise harmful emissions and reduce pollution, contributing to a healthier, more sustainable planet. Pre- and post-pilot workshops were conducted online to refine and evaluate the intervention.

Results
Two interactive H5P videos with quizzes were co-designed and piloted as post-learning activities following hand hygiene and injection practicals for first-year medical students. The videos addressed planetary health, environmental sustainability, and the role of healthcare professionals in waste management. The videos were uploaded to Moodle. Feedback was positive, with participants reporting high confidence (mean ratings: 4.61/5 for identifying waste disposal mistakes, 4.64/5 for advocacy, and 4.68/5 for understanding the healthcare professional's role). Qualitative responses highlighted themes of professional responsibility, sustainability, and climate action, indicating increased awareness of the importance of responsible waste management in healthcare. This innovative co-design activity empowered students and faculty as educators of the Planetary Health curriculum, creating sustainable video resources aligned with the Sustainable Development Goals for multidisciplinary healthcare programmes.

Conclusion
Innovative co-design activities can lead to meaningful, lasting educational resources that empower healthcare professionals to drive change in sustainability and planetary health. By taking small, responsible actions such as proper waste disposal, healthcare professionals can collectively make a significant impact, contributing to a safer, cleaner, and healthier planet.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

TOWARD AN EDUCATIONAL ECOSYSTEM IN INTERNAL MEDICINE: STRATEGIES FOR FACULTY DEVELOPMENT AND COMMUNITY BUILDING

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Background and Aims
Under the demands of the "New Medical Education" initiative and high-quality development in public hospitals, traditional internal medicine teaching models face practical challenges such as insufficient teaching collaboration, unclear faculty development pathways, and a need to stimulate intrinsic motivation for teaching. Building an educational ecosystem that can integrate resources and unleash the educational potential of all participants has become key to enhancing the quality of medical education.

Methods
The Department of Internal Medicine at West China Hospital has built a systematic "Educational Community" grounded in the principle of "collaborative co-creation." Key initiatives include (1) Organisational Innovation: We dissolved traditional departmental boundaries to form interdisciplinary teaching teams and introduced Full-time Clinical Teaching Faculty positions, offering clear career pathways and institutional support for key educators. (2) Mechanism Empowerment: A structured mentoring system and regular collective lesson preparation sessions were established to foster a supportive network for professional growth. In parallel, we utilized a national teacher development platform to deliver comprehensive training—from fundamental teaching skills to advanced educational scholarship. (3) Cultural Leadership: To cultivate a culture that honours teaching excellence, we launched initiatives such as teaching competitions, recognition of outstanding educators, and deep integration with the West China Hospital "HEART" education framework.

Results
Through these practices, the teaching enthusiasm and participation of internal medicine faculty significantly increased, creating a good situation of collaborative advancement among senior, mid-career, and junior faculty. The standardisation and innovation of teaching activities were simultaneously enhanced, and a cultural atmosphere characterised by mutual learning between teachers and students and supportive collaboration became increasingly prevalent, providing a solid guarantee for cultivating outstanding medical talents.

Conclusion
The successful construction of the Internal Medicine "Educational Community" effectively activated the endogenous motivation for teaching development and serves as a powerful measure to address current challenges in medical education. This model provides a valuable " West China Hospital model" for large teaching hospitals seeking to build an open, collaborative, and sustainable teaching development ecosystem.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EMPATHY OF MEDICAL STUDENTS: THE RESULTS OF COMMUNITY-BASED LEARNING AND PRACTICAL TRAINING AT COMMUNITY HOSPITAL ON THE THAI-MYANMAR BORDER

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Background and Aims
Empathy is the ability to understand and perceive the thoughts and feelings of others without being self-centred. Empathy forms the basis of kindness towards those around us. This concept has increasingly been integrated into medical education. Additionally, Somdejphrajaotaksinmaharaj Hospital promotes empathy among medical students by sending them to practice at Umphang Hospital, located on Thai-Myanmar border, Tak Province, for a period of one month. This research aims to compare the empathy scores of medical students before and after participating in practice at Umphang Hospital.

Methods
A mix-method research with a population of 30 sixth-year medical students who completed a one-month general medical practice course at Umphang Hospital during the 2023-2024 academic year. The instrument was the empathy assessment questionnaire developed from Goleman's framework, covering five aspects, with a total of 30 items in a 5-point Likert scale. Data was collected one week before and after the medical students' practice at the hospital. The statistical was t-test, with significance level at 0.05. Additionally, focus group discussions were conducted with all the medical students using open-ended questions to gather their opinions.

Results
The empathy scores of medical students before and after their practice at Umphang Hospital were 2.49 (SD=0.82) (moderate level) and 4.12 (SD=0.27) (high level), respectively. The post-practice empathy scores were significantly higher than the pre-practice scores ($t=10.57$, $p<0.01$). Furthermore, data from the focus group discussions revealed that the border area, with its large number of stateless patients, increased the medical students' understanding of the patients' hardships. This learning experience was considered valuable for their future patient care.

Conclusion
Spatial and social contexts play a crucial role in fostering empathy and community engagement among medical students. Community-based learning, such as home visits, health service missions in remote areas, and working under the constraints of community hospitals while caring for stateless patients under the supervision of exemplary physicians, is one of the effective strategies for instilling empathy in medical students. Medical schools should instil empathy in medical students through courses that incorporate community hospitals as the foundation for practical training. Additionally, they should leverage the unique strengths and advantages of these locations to design educational experiences that foster empathy in medical students.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ASSESSMENT OF COMMUNICATION SKILLS AMONG SOME FINAL-YEAR STUDENTS OF MONGOLIAN NATIONAL UNIVERSITY OF MEDICAL SCIENCES

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Background and Aims
Communication skills are essential soft skills that every doctor and healthcare professional must possess.

Effective communication is a core competency for healthcare professionals, directly influencing patient satisfaction, adherence to treatment, and clinical outcomes. During medical student years, it is important for the students to learn how to establish communication, understand communication skills, apply them in daily work and life, and develop the ability and attitude to interact with clients and colleagues in a humane, compassionate, honest, diligent, responsible, and cooperative manner. Misunderstandings, dissatisfaction, and frustration among people often arise from a lack of understanding of communication concepts and the inability to apply them effectively in daily life. Therefore, it is essential to study how well some final-year students of Mongolian National University of Medical Sciences understand and acquire communication skills, and how they communicate with clients.

Methods
Final-year students studying General Medicine, Dentistry, and Traditional Medicine at Mongolian National University of Medical Sciences were included in the study. The research was conducted using a Google Form that contained 2 general questions and 15 items related to communication skills.

Results
This study evaluated self-reported communication skills among final-year students in General Medicine, Dentistry, and Traditional Medicine at MNUMS, revealing both strengths and areas for improvement.

A total of 186 students participated in the study, of whom 53.8% (100) were majoring in General Medicine, 30.1% (56) in Dentistry, and 16.1% (30) in Traditional Medicine. Among the participants, 83.3% (155) were female and 16.7% (31) were male.

The findings indicate that students generally perceive themselves as competent in basic communication skills, such as attentive listening, showing respect, punctuality, and greeting clients.

The results of the study demonstrate that the majority of final-year students rated their communication skills as average to good across all measured domains. The highest levels of self-assessed proficiency were observed in the skills of attentive listening (40.3% rated "very good"), showing respect (38.2%), and punctuality (34.4%), indicating that students have generally developed satisfactory competence in fundamental interpersonal communication behaviours.

Conversely, the lowest proportions of "very good" ratings were recorded in the areas of guiding client conversations (19.4%), encouraging clients to speak (19.4%), and using appropriate gestures (17.7%). These findings suggest that while basic communication abilities are relatively well established, more complex and nuanced skills-particularly those involving emotional intelligence, conversational structure, and non-verbal communication-require further enhancement.

Conclusion
Overall, the data imply that final-year medical students possess a solid foundational understanding of communication, yet there remains a need for systematic reinforcement and practical training to advance these competencies to a professional level suited for clinical practice. Integrating structured communication skill modules, simulation-based learning, and reflective feedback into the curriculum may contribute to improved mastery in these areas.

Regardless of their major, the final-year students responded that they had acquired communication skills such as attentive listening, asking clarifying questions, greeting properly, and showing respect to

clients fairly well. Although this is commendable for graduating students, the proportion of those who rated themselves as having excellent communication skills remains insufficient and requires attention.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 10.45am

London Hall & Washington Hall, Level 5

SHORT COMMUNICATIONS 10

Construction of Entrustable Professional Activities for Cardiovascular Nurses in Tertiary Hospitals
Jie Hui Feng, China

Nine Years' Experience of Small Group Case Discussions on Medical Ethics: Professionalism vs. Ethical Dilemmas
Sarinya Thangsittichok, Thailand

Exploring the Feasibility of Increasing Student to Clinical Educator Ratios and Incorporating Collaborative Learning in Physiotherapy Student Education
Sharika Udipi, Singapore

The Current Status of Participation and Proposed Strategies to Improve International Student Exchange Programs at a University in Developing Country
Pham Doan Gia Khang, Vietnam

Lol and Learn – Perceived Impact of Near Peer Teaching Using Memes and Reels
Yajurva Mehta, India

Effectiveness of a Dementia Awareness Game on Knowledge and Attitudes of Medical and Nursing Students in Vietnam: A Pre-/Post-Test Design
Thuy-Khanh Linh Tran, Vietnam

Perception, Confidence and Readiness for AI Application in Medical Education
Thang Le Quoc, Vietnam

Augmenting Assessment in Medical Education for Specialist Exit Exams – Leveraging Generative AI for High-Quality SBA Item Construction
Audrey Tan, Singapore

Advancing Minimally Invasive Surgery Training: Lessons from Vietnam and the Asia Pacific Region
Quan Anh Tuan Le, Vietnam

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

CONSTRUCTION OF ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR CARDIOVASCULAR NURSES IN TERTIARY HOSPITALS

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Departments of [1]Nursing and [3]Cardiovascular Surgery, The First Affiliated Hospital, Zhejiang University School of Medicine, China, [2]College of Nursing, Zhejiang Chinese Medical University, China

Background and Aims
As a major global public health challenge, cardiovascular diseases have seen accelerated advancement in minimally invasive surgery and interventional techniques, driving deeper integration between cardiovascular medical and surgical disciplines and fostering the development of innovative cardiac team-based collaboration models in tertiary hospitals. The competency of cardiovascular nurses directly impacts the quality of care and patient safety in cardiovascular disease management. entrustable Professional Activities (EPAs), serving as observable and measurable competency assessment tools, have achieved localised application in medical education and exploratory implementations in specialised nursing fields. However, EPA indicators specific to cardiovascular nurses remain unexplored. Therefore, establishing a competency evaluation system for cardiovascular nurses in tertiary hospitals, guided by job requirements and centred on EPA indicators, is crucial. The aim is to construct the entrustable professional activities (EPAs) indicators for cardiovascular nurses in tertiary hospitals, providing a basis for evaluating their job competency.

Methods
Based on literature review, group discussions, semi-structured interviews and Delphi method, the EPAs indicators, their descriptions, and the expected entrust level of each EPAs indicator for different working years were preliminary formulated.

Results
A total of 22 experts from 16 hospitals in 12 provinces were included, and a total of two rounds of consultation were conducted. The effective recovery rates of two rounds of expert consultation questionnaires were both 100%. The authority coefficients were 0.842 and 0.856.The Kendall harmony coefficients were 0.289 and 0.309($P<0.001$).Finally, a set of 10 EPAs indicators and 29 descriptive statements were formed, and the expected entrust level of each indicator in different years were determined.

Conclusion
The construction process of EPAs for cardiovascular nurses in tertiary hospitals demonstrates scientific reliability. The framework effectively addresses the temporal demands of critical cardiovascular care practices and the collaborative requirements for managing complex cases, exhibiting strong disciplinary specificity and clinical relevance, which can serve as a valuable reference for evaluating both the competency of cardiovascular nurses and the effectiveness of nursing education programmes in tertiary hospitals.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

NINE YEARS' EXPERIENCE OF SMALL GROUP CASE DISCUSSIONS ON MEDICAL ETHICS: PROFESSIONALISM VS ETHICAL DILEMMAS

Thangsittichok S

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Background and Aims
It is difficult to distinguish between ethical dilemmas and professionalism problems. Medical ethics is based on a set of values (autonomy, beneficence, non-maleficence, justice) that physician can refer to in case of any conflicts, while professionalism is a set of standards that an individual is expected to adhere to in a workplace; e.g., dress code, integrity, altruism, excellence and continuous improvement. We aimed to explore the perceptions of medical students if asked to give examples on ethical dilemma scenarios.

Methods
The 1½ hour sessions of ethical case discussion have been conducted among group of four to six sixth year medical students since 2015 up to November 2024. The meetings were led by a bioethical trained paediatrician. Prior to the class, each student was asked to think of and prepare at least one ethical dilemma case for subsequent discussion using Jonsen's four boxes case-based approach as a tool. The ad-hoc analysis was done on the students' ethical dilemma cases. Quantitative and qualitative data were reported.

Results
There were 54 sessions carried out with 200 cases reviewed. 43% of the cases were identified ethical dilemma cases, i.e. the debates over withdrawing or withholding treatments. 41% fell into professionalism problems; e.g., a breach of confidentiality, misrepresentation of truth in medical errors. 16% belonged to questions on medical indications; e.g., abortion indication, treatment and prognosis of carcinoma. Upon discussion, the more ethical relevant the problem was, the more effective the tool worked.

Conclusion
It is easy to confuse ethics and professionalism. The two concepts should be made clear prior to the sessions for the effectiveness of the tool used which was specifically designed to solve ethical dilemmas.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EXPLORING THE FEASIBILITY OF INCREASING STUDENT TO CLINICAL EDUCATOR RATIOS AND INCORPORATING COLLABORATIVE LEARNING IN PHYSIOTHERAPY STUDENT EDUCATION

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Physiotherapy, Allied Health Services and Pharmacy, Tan Tock Seng Hospital, Singapore

Background and Aims
Clinical placements (CP) are crucial in physiotherapy education. The Singapore Institute of Technology (SIT) physiotherapy undergraduate programme which started in 2016 with 96 students was to almost double by academic year 2023 to accommodate 175 students. This sudden growth intensified the demand for clinical training spaces from all healthcare institutions. Our institution realised early on that the traditional apprenticeship model of one clinical educator (CE) to one or two students was unsustainable, necessitating a transition to a model where one CE supervises three or more students. To maintain educational quality while increasing the student-to-CE ratio, we explored collaborative learning (CL) as a potential solution. CL, grounded in the social nature of learning, enables multiple learners to leverage each other's resources and skills in cooperation. This study evaluates CL's feasibility in supporting increased student-to-CE ratios in physiotherapy CP and its impact on clinical learning quality.

Methods
In 2020, we initiated a pilot programme involving three CEs, each facilitating three learners using CL principles. CEs received senior educator support and on-the-job training in CL implementation during the placement. Data collection comprised of semi-structured focus groups with both CEs and students and Ministry of Health (MOH) student feedback on clinical placements

Results
Analysis of feedback from nine students and three CEs revealed two primary themes: 1) supportive learning environment and 2) efficient use of time. Students reported enhanced learning and problem-solving through peer interaction, contrasting with traditional CE-centric feedback approaches. CEs also found group teaching more time-efficient and interactive. However, with increased number of students, there was an increased administrative burden on them. Such as completing multiple placement reviews and formal feedback forms. Students initially expressed concerns about reduced patient contact as they did not see the value in observation of their peers. But eventually, they discovered valuable learning opportunities from these peer observation.

Quantitatively, MOH student feedback demonstrated improvement in "overall training experience" from 3.57/4.0 (2019) to 3.75/4.0 (2020). Student satisfaction with "CE time allocation" also improved from 3.49/4.0 to 3.77/4.0, both exceeding our institutional benchmark of 3.6/4.0.

Conclusion
Our pilot demonstrated that CL implementation was an effective, sustainable solution for accommodating the growing student numbers in physiotherapy education. The improved student satisfaction scores and positive qualitative feedback suggest that CL can maintain, and potentially enhance, learning quality despite higher student-to-CE ratios. However, the increased administrative burden on CEs and the student's perception of the usefulness of observation requires attention and solutions.

Future developments should focus on three key areas: creating structured CL training programmes for CEs, establishing systems to streamline administrative tasks, and reframing students' perception of learning opportunities beyond direct patient care. Students need to recognise that effective learning occurs not only through hands-on patient care but also through mindful observation and peer interaction.

This study provides evidence that CL is an effective solution in sustaining the growing student numbers in physiotherapy education while maintaining educational standards. Further research should explore long-term outcomes as well as optimal student-to-CE ratios within the CL model.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE CURRENT STATUS OF PARTICIPATION AND PROPOSED STRATEGIES TO IMPROVE INTERNATIONAL STUDENT EXCHANGE PROGRAMMES AT A UNIVERSITY IN DEVELOPING COUNTRY

***[1]Pham KDG*, [2]Nguyen TN, [1]Dang KLM, [1]Tran TVM, [1]Vo VT, [3]Tran TD**

[1]Faculty of Medicine, University of Medicine and Pharmacy at Ho Chi Minh City, Vietnam, [2]University of Medicine and Pharmacy at Ho Chi Minh City, Vietnam, [3]Department of Paediatrics, Faculty of Medicine, University of Medicine and Pharmacy at Ho Chi Minh City, Vietnam

Background and Aims
International student exchange is a cooperation activity between universities or educational institutions that allows students from one country to study at an institution in another country for a specified period. Interest in international student exchange programmes among university students in Vietnam is increasing; however, numerous barriers persist, limiting actual participation despite the growing availability of such opportunities. This study aims to investigate the current status of participation, attitudes, and associated factors regarding international student exchange activities among students at the University of Medicine and Pharmacy at Ho Chi Minh City (UMP).

Methods
A descriptive cross-sectional study was conducted among students from all academic programs at UMP. Data was collected through an online questionnaire and analysed using SPSS software. Appropriate statistical tests were applied to explore associations between variables. The research project has been approved by the Ethics Committee for Biomedical Research of the University of Medicine and Pharmacy at Ho Chi Minh City, under approval number 2859/ĐHYD-HĐĐ, dated October 14, 2024.

Results
A total of 4,588 students enrolled in the 2024-2025 academic year participated in the study. Among them, 2.2% had previously engaged in international exchange activities, 35.7% had never participated and expressed no intention to do so, while 62.1% had not participated but indicated an intention to engage in such activities in the future. Of those who had never participated, 52.5% reported having received information about international exchange opportunities, whereas 47.5% had not. Overall, the majority of students passively received information from the official notification channels of the university (80.6%), from faculty or academic advisors (36.4%), and from the Youth Union or Student Association (33.7%). The rate of students proactively seeking information from senior students was 26.8%. Additionally, 21.9% actively sought information from friends who had participated, 17.8% from exchange programme websites, and 17.8% from social media platforms. Among these, the prominent barriers were limited access to information and financial support, which are considered key factors.

Conclusion
A substantial gap exists between students' intentions and actual participation in international exchange programmes, largely due to barriers in accessing relevant information. Enhanced communication strategies and financial support mechanisms are recommended to facilitate greater student engagement in international exchange activities.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

LOL AND LEARN – PERCEIVED IMPACT OF NEAR PEER TEACHING USING MEMES AND REELS

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Background and Aims
The current generation of learners are Gen Z, born between 1997 to 2012 and the faculty, either Baby boomers (1946- 1964), Generation X (1965-1980) or Millennials (1981 to 1996). Gen Z uses digital devices and social media for work, play and school. When the pandemic forced opened doors for online teaching, this consumption reached a new level and medical education took a quantum leap. Introduction of CBME has led to use of different teaching methodologies. Near peer teaching is one of them. Studies show that peer teaching has the potential to foster professional development in various competencies and suggest that strategically designed peer teaching programmes may enhance learning outputs for all involved. We designed a near peer teaching programme and added to it what Gen Z understands best- memes and reels. The aim was to study perceived effect of memes and reels based near peer teaching on knowledge and student engagement in undergraduate medical students. Such studies are few and this makes our design unique.

Methods
The study was conducted in a medical college in rural Gujarat. The near peer teacher, an intern, with cumulative reel/meme based teaching experience of 11 hours, took five sessions for third part II MBBS students, during their third and final clinical posting in the department of medicine. All topics were based on approach to symptom/sign - dysuria, edema, palpitations, syncope and headache. After conducting pre-test using google form, the session was conducted on the given topic. Each session used memes/ reels at different times throughout the session–to introduce the topic, explain a concept, highlight a clinical presentation or treatment, reinforce important aspects or give a carry home message. Minimum number of reels used were three and maximum were eight per session. Post test was conducted using google form. Data was transferred to excel sheet and analysed to calculate the difference in marks of pre- and post-test for each session. Feedback was collected through google form and data analysed.

Results
The difference between pre and post test scores was significant with p value less than 0.001 for all the sessions. 100% agreed that the session objectives were met, explanation of concepts through memes/ reels was effective, memes used were relatable, enhanced understanding, made learning more engaging and easier to remember. 100% also agreed that the balance between fun and factual content was well maintained. 96.1% felt comfortable asking questions or interacting during the session, while 3.9% were neutral. 100% agreed that the sessions were interactive and held their attention and found this teaching method to be more effective than conventional lectures. 96.2% said that they would like more teaching sessions that use memes/ reels.

Conclusion
A near peer, reel/ meme based teaching programme is well accepted by undergraduate medical students, boosts student engagement and conceptual understanding. These findings underscore the importance of aligning medical education with modern learner preferences and we advocate for broader adoption and further research into such digital- native and student centred strategies in undergraduate teaching.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EFFECTIVENESS OF A DEMENTIA AWARENESS GAME ON KNOWLEDGE AND ATTITUDES OF MEDICAL AND NURSING STUDENTS IN VIETNAM: A PRE-/POST-TEST DESIGN

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Nursing, Nursing and Medical Technology, University of Medicine and Pharmacy at Ho Chi Minh City, Vietnam

Background and Aims
With the rapid ageing of the global population and the increasing prevalence of dementia, there is a growing imperative to equip future healthcare professionals with the knowledge and attitudes necessary to support individuals affected by this condition. International evidence has demonstrated that serious educational games, such as the Dementia Game (www.dementiagame.com), are effective tools for enhancing dementia-related knowledge and fostering positive attitudes among learners. However, to date, no studies in Vietnam have investigated the impact of such game-based interventions on healthcare students. This study aims to address this gap by evaluating the effectiveness of a serious educational game in improving dementia-related knowledge and attitudes among nursing and medical students.

Methods
A quasi-experimental pre-test-post-test design was employed to evaluate the impact of a serious educational game on dementia-related knowledge and attitudes. The study was conducted during the 2024-2025 academic year at a healthcare university in Ho Chi Minh City. Participants included third-year undergraduate nursing students and fifth-year undergraduate medical students who consented to participate. All participants completed a validated pre-test questionnaire assessing dementia knowledge and attitudes, engaged with the Dementia Game over a two-weeks intervention period, and subsequently completed the same questionnaire as a post-test. Paired-samples t-tests were conducted using SPSS version 26.0 to compare pre- and post-intervention scores. Ethical approval was obtained from the institutional review board prior to data collection.

Results
A total of 181 student responses were analysed, comprising 138 nursing students and 43 medical students. Among medical students, the mean Alzheimer's Disease Knowledge Questionnaire (ADQ) score increased from 66.8 (±5.1) at baseline to 73.0 (±7.4) following the intervention. The Hope subscale improved from 22.9 (±2.6) to 26.2 (±4.1), while the Person-Centredness subscale rose from 43.9 (±4.1) to 46.7 (±4.6). Similarly, among nursing students, the mean ADQ score increased from 64.9 (±5.5) pre-intervention to 70.4 (±6.9) post-intervention. The Hope subscale improved from 22.6 (±3.5) to 25.8 (±4.0), and the Person-Centredness subscale increased from 42.3 (±4.2) to 44.6 (±5.1). Overall, over 78% of students in both cohorts demonstrated improved ADQ scores after completing the serious educational game on dementia.

Conclusion
Participation in the serious educational game led to significant improvements in both knowledge and attitudes toward dementia among medical and nursing students. Notable gains were observed in the Hope and Person-Centredness subscales, highlighting enhanced empathy and understanding of person-centred care. These findings support the integration of serious games into healthcare education curricula and suggest strong potential for broader implementation and further research at regional and international levels.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

PERCEPTION, CONFIDENCE AND READINESS FOR AI APPLICATION IN MEDICAL EDUCATION

***Le Quoc T*, Duong Danh Nguyen H, Huynh Thi Nhu N, Nguyen Thi T, Tran Thi Thanh H**

Graduate Medical Education, College of Health and Sciences, VinUniversity, Vietnam

Background and Aims
Artificial Intelligence (AI) is rapidly reshaping in medical education and clinical practice globally. Medical students get higher scores and longer retention of knowledge in preclinical and clinical subjects by using AI tutoring systems compared with experts. A study with small portion of health professions and patients in Sweden about the trust of AI-based triage in primary care setting showed that the constructive conversation, clear instructions for the use and storage of information are important while applying AI in interaction with patients. Many concerns and issues related to AI application in medical training and practicing are still debated among health professionals. Understanding perceptions, confidence, and readiness for AI adoption among stakeholders is crucial for guiding strategic implementation.

Methods
A cross-sectional mixed-methods study has been conducted at VinUniversity from May to August 2025. The quantitative component included two anonymous, 29-item online surveys distributed to faculty and medical students/residents. The qualitative component involved four semi-structured interviews with key stakeholders to provide contextual insights. All quantitative data are collected via REDCap and analysed using descriptive and inferential statistics in R, while qualitative data will be undergoing thematic analysis.

Results
The preliminary data included 81 participants who completed the survey, comprising 28 faculty and 53 medical students and residents. Among faculty, 97% said that AI facilitates physicians' access to medical knowledge and information; 73.6% agreed that AI diminishes the likelihood of medical errors in clinical practice. One third expressed their concerns that AI may reduce the humanistic aspect of the medical profession and damage the trust that forms the foundation of the patient-physician relationship. Among learners, 41% of learners stated that AI helps to improve clinical reasoning and decision-making, although nearly half expressed concerns regarding the reliability and contextual appropriateness of AI-generated feedback.

Half of faculty and learners expressed confidence in using AI to assist them with their tasks. There is a broad agreement that AI should be integrated into the curriculum. Most of faculty used AI for generating quizzes and lecture materials, with minimal application to advanced areas like simulations, adaptive learning, and clinical decision support. Key barriers of AI application both in faculty and learners included privacy and data security concerns, potential bias in AI-driven decisions, reduced critical thinking and collaboration, and lack of formal training. Both groups expressed strong interest in structured AI training, clear ethical guidelines, and user-friendly platforms to for AI adoption.

Conclusion
All participants at VinUniversity recognise AI's potential to transform medical education and clinical practice and support its integration into curricula. However, strategic investments in faculty development, curriculum design, supportive infrastructure, and clear ethical frameworks are needed to translate positive attitudes into effective, safe, and sustainable AI integration within Vietnam's medical education landscape.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

AUGMENTING ASSESSMENT IN MEDICAL EDUCATION FOR SPECIALIST EXIT EXAMS – LEVERAGING GENERATIVE AI FOR HIGH-QUALITY SBA ITEM CONSTRUCTION

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Background and Aims
Single Best Answer (SBA) questions are integral to assessment in undergraduate and postgraduate medical education, offering a structured and reliable method to evaluate learners' applied knowledge. As clinical reasoning and decision-making become increasingly complex, the demand for high-quality, contextually relevant SBA items grows. Generative artificial intelligence (AI), particularly large language models like ChatGPT, presents promising opportunities to enhance the item-writing process by supporting efficiency, standardisation, and creative output. Frequently–setting SBA can be a time consuming process, which may be difficult for the busy neurosurgeon. It is hoped that AI can help to augment the assessment process and improve the overall quality and fairness of the exit exam.

Methods
The context of this study is for the use of specialist exit examinations (neurosurgery) for Singapore and Hong Kong Candidates to ascertain competency to become a Specialist. Question setters included experienced neurosurgeons both from Singapore and Hong Kong who have previously attended a course on SBA item setting. Faculty members involved in examination development participated in hands-on workshops focused on integrating ChatGPT into the SBA item creation process. The structured workflow included uploading clinical content, crafting targeted prompts (prompt engineering), generating draft items with AI, and manually reviewing and refining each output. Items were assessed for clarity, alignment with Bloom's taxonomy and Miller's pyramid, and overall pedagogical appropriateness.

Results
AI-assisted item generation significantly reduced the time required for initial drafts, with most SBA items completed in under three minutes. Generated items adhered to best practices: vignette-based stems, clinically realistic scenarios, alphabetically ordered options, and clear lead-in questions. The majority of items aligned with mid-level Bloom's taxonomy categories (Apply, Analyse) and effectively tested the "Knows How" level of Miller's pyramid. Faculty feedback highlighted improvements in productivity, reduced writer's block, and enhanced item consistency. Limitations included occasional hallucinated content, medically implausible distractors, and reduced performance on tasks requiring higher-order reasoning or clinical nuance.

Conclusion
The use of generative AI such as ChatGPT holds transformative potential in medical education assessment. When embedded within a robust pedagogical framework and complemented by expert review, AI enhances the quality, efficiency, and consistency of SBA item construction. As medical schools and health systems increasingly turn to digital solutions, AI-augmented workflows can support scalable, reliable, and educationally sound assessment design. Future work should explore longitudinal outcomes of AI-assisted assessments and develop governance models for responsible use.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ADVANCING MINIMALLY INVASIVE SURGERY TRAINING: LESSONS FROM VIETNAM AND THE ASIA PACIFIC REGION

Le QAT

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Background and Aims
Minimally Invasive Surgery (MIS) has revolutionised surgical care by reducing postoperative pain, hospital stays, and recovery times while improving overall patient outcomes. However, the effective implementation and sustained growth of MIS programmes in developing regions require more than technical expertise-they demand strategic planning, institutional commitment, and comprehensive team-based training. Drawing on over two decades of hands-on experience in MIS training in Vietnam and throughout the Asia Pacific region, this abstract outlines key strategies and lessons for advancing sustainable MIS education.

Methods
Personal experience on MIS training in Vietnam and Asia Pacific region.

Results
A critical first step in successful MIS programme development is building MIS training centres. These centres provide structured training and can act as regional hubs for MIS dissemination. Equally essential is the formation of a dedicated, multidisciplinary team. MIS training must extend beyond the surgeon to include anaesthetists, scrub nurses, and OR support staff. Training the entire team together ensures synchronised workflows, strengthens communication, and fosters a shared sense of responsibility in patient care.

Another vital component is the adaptation of training curricula to match local needs. In Vietnam and neighbouring countries, success has been attributed to context-specific approaches that consider prevalent disease patterns, available technologies, and the learning needs of trainees. Combining hands-on workshops, simulation, mentoring, and stepwise clinical exposure has proven to be an effective training model. Regular follow-up, constructive feedback, and regional mentorship networks further enhance skill retention and foster programme sustainability.

Programmes that embraced these principles have seen measurable improvements in surgical quality and efficiency. In particular, selected centres in Vietnam have evolved into regional leaders, hosting international fellows and contributing to the broader MIS community in Asia Pacific. By focusing not only on individual surgeon skills but on full-team, system-wide education, these programmes offer a replicable and scalable model for other countries with similar healthcare contexts.

Conclusion
Advancing MIS in Vietnam and the Asia Pacific region requires more than technical training-it relies on strategic site selection, institutional support, team-based capacity building, and regionally adapted education models. By prioritising multidisciplinary collaboration and developing training programmes within centres of excellence, we can build sustainable, high-quality MIS capabilities across the region and improve surgical care outcomes for future generations.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 12.45pm

Hua Yue 1, Level 3

SHORT COMMUNICATIONS 11

Relationship Between Burnout and Professionalism Among Medical Students in Singapore
Jin Yang Ho, Singapore

Using Artificial Intelligence to Develop Blood Cell Morphology Skills in Medical Laboratory Technologists
Junxun Li, China

Evidence-Based Practice Competency and Barrier Factors Among Nursing Students
Vy Van Thao Ngan Nguyen, Vietnam

Reforming Medical Education Assessment Through the Innovative Concept of "Integration of Assessment and Learning"
Bo Qu, China

The Strength Within: Exploring Resilience Levels and Associated Factors in Medical Students
Mohamed Ahmed, Turkey

Assessing Knowledge and Concerns About Intravenous Contrast Use in Computed Tomography Among Medical Students and Interns in Lampang Hospital: Implications for Patient Safety
Jaruporn Ruenrerng, Thailand

Spatial Reconstruction to Understand Pelvic and Perineum Anatomy: A New Learning Paradigm with Virtual Reality?
Arthur Chin Haeng Lau, Singapore

Developing Empathy and Compassion Through Caring for Disabled Patients of Medical Students: A Qualitative Lesson Analysis
Duangnapa Sirisopon, Thailand

Restructuring Surgical Practical Education: A New Initiative in Precision, Competency-Based Training to Translate Medical Knowledge into Practical Abilities
Zhen You, China

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

RELATIONSHIP BETWEEN BURNOUT AND PROFESSIONALISM AMONG MEDICAL STUDENTS IN SINGAPORE

[1]Ho JY, [2]Tuang VY, [3]Teo DBS, [4]Ponnamperuma G

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Background and Aims
Burnout is a significant issue faced by the medical community, both among doctors and students. Burnout has significant negative consequences, one of which is its negative impact on professionalism. This study thus aimed to measure the prevalence of burnout among medical students, to identify its relationship with various demographic factors, and to evaluate its relationship with professionalism.

Methods
A cross sectional study was performed on Year two to five medical students, where they completed a questionnaire that consisted of their basic demographic information, the Maslach Burnout Inventory Human Services Survey for Medical Personnel (MBI-HSS (MP)), and the Medical Professionalism: A Self-assessment Tool (MPAST). Welch's ANOVA and t-tests, and Chi-squared test were used to identify the relationship between various demographic factors and the emotional exhaustion (EE), depersonalisation (DP) and personal accomplishment (PA) scores, and the MBI burnout profile respectively. Pearson's correlation and Welch's t-test were used to evaluate the relationship between the MPAST scores and the EE, DP and PA scores, and the burnout profile respectively.

Results
17.7% of the sample population were considered to be burnout, with the prevalence of burnout and the extent of emotional exhaustion and depersonalisation increasing with the year of study. Higher levels of emotional exhaustion and depersonalisation, lower levels of personal accomplishment and having a burnout profile were also associated with lower levels of professionalism.

Conclusion
Burnout is a significant issue among medical students, with increasing prevalence as students transition from preclinical to clinical years. With the negative relationship between burnout and professionalism, more should be done to reduce burnout among medical students.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

USING ARTIFICIAL INTELLIGENCE TO DEVELOP BLOOD CELL MORPHOLOGY SKILLS IN MEDICAL LABORATORY TECHNOLOGISTS

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Background and Aims
Analysing blood cell morphology is a subjective process. Achieving consistency and quality in skills related to blood cell morphology analysis requires considerable time, although this skill is invaluable in clinical practice. The use of artificial intelligence (AI) in medical education remains in its infancy. There is a lack of literature focusing on the application of AI in continuing professional development (CPD) for blood cell morphology analysis. We developed an AI-based online learning platform to assist laboratory technologists in learning blood cell morphology. Our research question is: Can the AI-based online platform help medical laboratory technologists enhance their skills in blood cell morphology?

Methods
This is an explanatory sequential mixed-methods research. Fifty-two medical laboratory technologists were randomised into Group A (n=26) and Group B (n=26). In phase one (quantitative research), Group A learned blood cell morphology on the platform in their spare time for two weeks, while Group B learned in a conventional style (with textbooks and atlases) during the same time. Both groups received a pre-test and a post-test before and after their learning, respectively. In phase two (qualitative research), eleven technologists and three mentors were interviewed to analyse their perspectives on the online platform.

Results
In phase one, the pre-test scores for Group A (53.46±13.67) and Group B (50.61±12.63) were comparable (P=0.439). The post-test scores in both groups were significantly higher than the pre-test scores (mean difference for Group A: 33.15±13.51, P<0.001; mean difference for Group B: 14.15±13.86, P<0.001). The post-test score in Group A was significantly higher than in Group B (mean difference 21.85±2.80, P<0.001). The variance of the post-test score in Group A was lower than that of the pre-test score in Group A and the variance of the post-test score in Group B. In phase two, most interviewees attributed the better final scores of Group A to the effectiveness of learning on the platform. Interviewees had positive perspectives on the online platform and agreed that AI can enhance their morphological skills in classifying blood cells.

Conclusion
AI technology can facilitate mentors in preparing blood cell morphology learning resources. The AI-based online learning platform can function as a special kind of MKO to guide laboratory technologists through their ZPD in blood cell morphology learning. The RZX platform can assist medical laboratory technologists in developing blood cell morphology skills and reducing discrepancies in blood cell classification. The AI-based online learning platform could be a good option for facilitating laboratory technologists in CPD activities in blood cell morphology learning.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EVIDENCE-BASED PRACTICE COMPETENCY AND BARRIER FACTORS AMONG NURSING STUDENTS

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Background and Aims
Evidence-Based Practice (EBP) is becoming increasingly important in the nursing field, particularly for nursing students. EBP empowers students to understand and apply patient care methods and techniques based on the latest scientific research, which enhances the effectiveness of treatment and patient care during clinical practice. Additionally, mastering EBP prepares students to tackle the challenges present in the modern healthcare industry.

However, despite its undeniable benefits, there are barriers that must be addressed to improve the quality of nursing education. In Vietnam, although EBP is incorporated into both teaching and clinical practice, its implementation still faces numerous limitations and challenges that need to be overcome to achieve sustainable medical education.

This study evaluates nursing students' competencies in evidence-based practice and identifies the barriers they may encounter, alongside factors related to their background.

Methods
This study employed a cross-sectional design and focused on students enrolled in the Nursing, Anaesthesiology, Nursing, and Midwifery programmes at the University of Medicine and Pharmacy in Ho Chi Minh City. A total of 424 students from the third and fourth years were selected using stratified random sampling. Data collection involved using three components: participant characteristics, the Evidence-Based Practice Competence Questionnaire (EBP-COQ), which included three areas: knowledge (six questions), practice (six questions), and attitude (13 questions), as well as barriers related to EBP competence (six questions). The data was analysed using descriptive statistics, the Wilcoxon rank sum test, Spearman correlation, and multiple linear regression.

Results
The average EBP competency score among nursing students was 3.44 (IQR: 3.28-3.68), with a minimum score of 2.8 and a maximum score of 4.9. A positive correlation was observed among the various components related to EPB competency, which include knowledge, practice, and attitude. Notably, the lowest score was in "knowledge about EBP" (3.17, IQR: 2.83-3.50), whereas the highest score was in "attitude towards EBP" (3.61, IQR: 3.46- 3.85).

Linear regression analysis indicated that several factors predicted EBP competency. These factors included: A lack of research knowledge and skills (ß=0.22, $p<0.001$), Inadequate support and encouragement (ß=0.17, $p<0.001$), Challenges in independently seeking information (ß=0.11, $p=0.01$), Insufficient EBP courses and Limited interest in exploring EBP (ß=0.10, $p<0.04$). The overall model was significant ($F(6, 417)=11.84$, $p<0.001$], adjusted RÂ²=0.16 and VIF=1.12).

Conclusion
The study provides valuable insights into the competencies of nursing students in EBP and the factors that affect these competencies. Key elements for enhancing EBP include effective teaching, supportive learning environments, the development of independent learning skills, and access to reliable resources. This suggests the need for close collaboration between the training programmes, faculty members, and student initiatives. By focusing on these areas, we can improve the overall quality of education for sustainable development, ensuring that the medical workforce is professionally competent and able to meet societal needs.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

REFORMING MEDICAL EDUCATION ASSESSMENT THROUGH THE INNOVATIVE CONCEPT OF "INTEGRATION OF ASSESSMENT AND LEARNING"

Qu B

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Background and Aims
Educational evaluation plays a pivotal role in guiding the direction of education, as the "assessment baton" directly shapes institutional priorities. The Guideline to Deepen Education Evaluation Reform in the New Era emphasizes advancing classified evaluations for higher education institutions, guiding them to develop distinct characteristics and strengths. It calls for innovative process-oriented assessment of moral, intellectual, physical, aesthetic, and labour education, while improving comprehensive quality evaluation systems. The reform also sets new requirements for examination reform: upholding scientific rigor, refining outcome assessment, strengthening process-oriented assessment, exploring value-added assessment, and enhancing comprehensive assessment. By leveraging information technology, the scientific, professional, and objective nature of educational evaluation can be elevated. In this New Era, medical education assessment reform is both imperative and urgent.

Methods
The evolution of educational assessment theory, spanning from the late 19th century to today, has progressed through four eras: Measurement, Description, Judgment, and Construction. This trajectory reflects a paradigm shift-from quantitative scoring to emphasizing educational objectives, from feedback-driven improvement to value co-construction. The evaluation framework has transitioned from "Assessment of Learning" to "Assessment for Learning", and now toward "Assessment as Learning", characterised by the integration of assessment and learning. With advancements in brain neuroscience, learning science is rapidly transitioning from traditional cognitive science to cognitive neuroscience, where attention, active engagement, error feedback, and consolidation have emerged as the four pillars of learning. By integrating findings from brain neuroscience with new-generation information and communication technologies, a brain-psychology-context integrated paradigm has been established in learning science. This paradigm supports both the shift toward cognitive neuroscience and the practical implementation of the "Integration of Assessment and Learning" concept. Educational assessment has developed inherent compatibility with learning activities, no longer existing independently from instruction but becoming an organic component of the learning process. Examinations now serve as a critical element in students' learning journeys. In essence, examinations represent the most effective form of learning.

Results
China Medical University (CMU) has pioneered reforms in medical education assessment by aligning with the developmental principles of educational evaluation theory. By enhancing items design for "accurate measurement", establishing feedback mechanisms for "effective utilisation" of results, and promoting faculty expertise to embed "assessment-learning integration", ensuring students achieve "profound learning", CMU developed the China Medical Education Item Bank Management System, continuously advancing its quality and digital-intelligent integration. The university introduced a bidirectional specification table to align educational objectives, curriculum goals, and assessment criteria. A smart exam analysis system has been implemented, requiring teaching departments to generate detailed assessment reports for identifying issues and refining feedback.

Conclusion
Leveraging decades of research and practical experience, CMU collaborated with the People's Medical Publishing House to successfully launch the first China Medical Education Item Bank Innovation Competition, which received widespread acclaim. The second edition is now in full preparation, catalysing a nationwide wave of reform in medical education assessment. These initiatives exemplify CMU's leadership in driving systemic innovation, integrating cutting-edge technology with pedagogical excellence to advance the quality and relevance of medical education in China.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE STRENGTH WITHIN: EXPLORING RESILIENCE LEVELS AND ASSOCIATED FACTORS IN MEDICAL STUDENTS

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Background and Aims
Medical school is considered one of the more demanding high-pressure environments. Students are constantly exposed to both academic and emotional stress. Leading to a detrimental impact to students' mental health, academic performance, and general satisfaction. Resilience, which is defined as one's ability to adapt and overcome adversity, has been shown to be a buffer against these effects. However, little is known about its levels and predictors in medical students, especially in a multicultural environment.

As medical students ourselves, our study aims to assess resilience levels in medical students and explore key demographic, academic, and behavioural predictors. We compared resilience across academic stages (preclinical vs. clinical) and nationality (Turkish-speaking vs. international students), while analysing associations with age, GPA, coping styles, life stressors, and exercise habits.

Methods
A cross-sectional, observational study was conducted using convenience sampling. A total of 115 medical students from all six academic years participated through an anonymous online questionnaire. Using the Connor-Davidson Resilience Scale (CD-RISC-25), we determined the resilience scores among medicals students. As for statistical analysis we used Shapiro-Wilk test to determine normal distribution. As well as, t-tests, ANOVA, Tukey's HSD, Pearson/Spearman correlation, and logistic regression for data interpretation.

Results
Resilience scores followed a normal distribution (Shapiro-Wilk $p=0.498$). No significant differences were found between preclinical and clinical students ($p=0.678$) or between genders. Nationality significantly influenced resilience: international students had higher scores than Turkish students ($p=0.000037$).

Positive predictors of higher resilience included:

- Older age ($r=0.231$, $p=0.034$)
- Regular exercise ($p=0.0004$), especially three to five times per week
- Absence of major life stressors ($p=0.007$)
- Adaptive coping styles: problem-solving and talking to someone ($p=0.014$)
- Logistic regression identified male gender, higher GPA, and social-support coping as significant predictors of high resilience ($p<0.05$; AIC =29.96)

No significant effects were found for financial status, religiosity, or living situation.

Conclusion
Medical students' resilience is influenced more by lifestyle and behavioural factors, such as exercise and coping strategies, than by fixed characteristics like age, gender, or academic year. According to these results, certain wellness tactics that emphasize encouraging adaptive coping and consistent exercise should be put into practice. Furthermore, it could be necessary to implement culturally aware treatments to help local student populations acquire resilience. This work promotes the inclusion of specialised mental health efforts in medical curricula and advances our understanding of resilience in medical education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ASSESSING KNOWLEDGE AND CONCERNS ABOUT INTRAVENOUS CONTRAST USE IN COMPUTED TOMOGRAPHY AMONG MEDICAL STUDENTS AND INTERNS IN LAMPANG HOSPITAL: IMPLICATIONS FOR PATIENT SAFETY

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Background and Aims
Intravenous (IV) contrast agents are commonly used in computed tomography (CT) imaging to enhance diagnostic accuracy. However, inappropriate or unsafe use of these agents can lead to significant patient risks, including nephrotoxicity and allergic reactions. Given the role that medical students and interns play in patient care, understanding their knowledge and concerns regarding IV contrast safety is essential. This study investigates the level of awareness, understanding, and apprehension about IV contrast usage among medical students and interns, with an emphasis on patient safety.

Methods
This cross-sectional study surveyed 78 medical students and interns in Lampang Hospital. The questionnaire assessed participants' knowledge of IV contrast agents, focusing on their indications, contraindications, and potential adverse reactions. Participants were also asked about their concerns regarding the risks of contrast administration, such as renal impairment and hypersensitivity reactions. In addition, the survey explored their familiarity with institutional guidelines and protocols for contrast use. Data was analysed using descriptive statistics and Chi-square tests to examine differences in knowledge and concerns based on the level of training.

Results
Among the 78 participants (48 medical students and 30 interns), the majority (80%) demonstrated basic knowledge of the indications for IV contrast in CT imaging. However, only 60% of respondents were aware of the full range of potential adverse effects. Interns exhibited greater awareness of nephrotoxicity and allergic reactions than medical students ($p<0.05$). Despite this, both groups expressed significant concerns about the safety of IV contrast, with 45% reporting inadequate training on how to identify and manage contrast-related complications.

Conclusion
While medical students and interns possess a foundational understanding of IV contrast use in CT imaging, significant gaps remain in their knowledge of the associated risks and safety measures. These findings underscore the need for improved education on contrast safety within medical training programmes. Addressing these gaps could enhance clinical competence, mitigate patient risk, and ultimately improve patient safety in the use of diagnostic imaging. Future research should explore educational interventions aimed at enhancing knowledge and preparedness in this critical area.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

SPATIAL RECONSTRUCTION TO UNDERSTAND PELVIC AND PERINEUM ANATOMY: A NEW LEARNING PARADIGM WITH VIRTUAL REALITY?

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Background and Aims
Anatomy education traditionally relies on cadaveric dissection and prosected specimens to facilitate spatial comprehension of complex anatomical regions. Despite these methods, medical students frequently report difficulties visualising and navigating intricate structures, particularly in compact regions such as the pelvis and perineum. Recent advances in virtual reality (VR) technology present opportunities to augment traditional learning by providing immersive, interactive experiences that enhance spatial understanding. At the National University of Singapore Yong Loo Lin School of Medicine, despite the rich learning resources which encompass both traditional and digital teaching and learning methods, students continue to face challenges grasping the spatial relationships within the pelvis and perineum regions. This study aimed to design, develop, and evaluate an innovative VR tool specifically tailored to support spatial comprehension and interactive learning of pelvic and perineal anatomy.

Methods
An interdisciplinary team from NUS, comprising anatomy educators from the Department of Anatomy and VR developers from Information Technology, collaborated in designing the VR tool, employing the MoSCoW prioritisation method to identify and implement critical learning features. The development process involved iterative feedback and refinements based on comprehensive user acceptance tests (UATs). These tests comprised three sequential sessions with 25 undergraduate healthcare students. Initially, individual UATs assessed personal interaction, focusing on ease of use, spatial comprehension, and user comfort. Subsequently, a final group-based UAT simulated practical classroom scenarios, where one participant interacted directly with the VR interface while peers provided verbal support and guided interactions. Each session lasted approximately 30-45 minutes, followed by structured qualitative interviews to gather in-depth feedback on usability, interaction quality, and perceived educational value.

Results
The final VR tool, designed specifically for the Meta Quest 3 platform, featured two distinct interactive modules: a learning mode facilitating anatomical exploration through systematic deconstruction, and an assessment mode encouraging knowledge consolidation through anatomical spatial reconstruction. Individual UATs indicated that participants experienced enhanced spatial understanding of complex pelvic and perineal structures without encountering significant usability challenges or symptoms such as vertigo or dizziness. Conversely, group-based interactions revealed distinct challenges, primarily in communication efficacy among students and uncertainty regarding clearly defined participant roles. These factors adversely impacted group dynamics and overall efficiency, highlighting areas requiring targeted refinement to optimise the tool's integration into classroom and practical sessions.

Conclusion
The developed VR educational tool demonstrates considerable promise in enhancing individual spatial comprehension of pelvic and perineal anatomy, providing significant benefits in contexts where traditional methods fall short. However, its effectiveness within collaborative learning environments depends on addressing identified challenges, particularly in communication and role delineation. Future refinements should focus on structured interaction protocols and clearer guidelines for student collaboration. Addressing these considerations is critical for successfully integrating VR-based anatomy education tools within standard medical curricula, ultimately maximising their educational impact.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

DEVELOPING EMPATHY AND COMPASSION THROUGH CARING FOR DISABLED PATIENTS OF MEDICAL STUDENTS: A QUALITATIVE LESSON ANALYSIS

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Background and Aims
Empathy and compassion are concepts in patient care that doctors should uphold, particularly when caring for patients with disabilities. The focus on diagnosis and treatment may no longer suffice in health service system. In response to this, the Rehabilitation Medicine course for fifth-year medical students in the Doctor of Medicine programme at Naresuan University in academic year 2024, has designed that medical students have experience in caring for disabled patients over a two-weeks period and write one case report detailing patients' lives, personal background, physical and mental health problems under the rehabilitation doctor. This is with the goal of developing empathy and compassion among medical students. The research aims to extract empathy and compassion lessons from case reports and presentations of medical students.

Methods
This qualitative study focuses on population was 16 medical students from the Strengthening Track, Somdejphrajaotaksinmaharaj Hospital, who completed the Rehabilitation Medicine course. These medical students had already submitted case reports and presentations as part of their course. Data analysis was analytic induction technique. Focus group discussion was organised to reflect the output to medical student and provide them suggestions to integrate empathy and compassion in medical students in the next academic year.

Results
16 case reports found that: 15 medical students (93.75%) recognised the need to enhance their empathy, compassion, and respect for patients; 10 medical students (62.5%) gained a deeper understanding of the social status and personal background of their patients; seven medical students (43.75%) reflected on past mistakes in their approach to patient care; five medical students (31.25%) developed innovative solutions to promote the health and well-being of disabled patients; three medical students (18.75%) followed up with patients by conducting home visits.

Conclusion
This study demonstrates that caring for disabled patients can significantly enhance empathy and compassion among medical students. Additionally, the medical students proposed the development of health-promotion innovations for patients to be included in the course curriculum for the next academic year. This will be beneficial to patients and make courses more interesting. The developing empathy and compassion can be integrated with evidence based on each course, with instructors having a role in providing guidance and instilling these values in medical students. The model employed in this course has demonstrated effectiveness in developing these skills in medical students.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

RESTRUCTURING SURGICAL PRACTICAL EDUCATION: A NEW INITIATIVE IN PRECISION, COMPETENCY-BASED TRAINING TO TRANSLATE MEDICAL KNOWLEDGE INTO PRACTICAL ABILITIES

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Background and Aims
To address challenges in surgical practical teaching, such as dispersed disease exposure and limited resources due to highly sub-specialised clinical disciplines. We construct a competency-oriented precision practical education system that integrates artificial intelligence, focuses on individual needs, and enhances undergraduates' surgical operational skills, clinical thinking abilities, and non-technical skills.

Methods
Focusing on three key areas—surgical operational skills, clinical thinking abilities, and non-technical skills—this project aims to cultivate undergraduates' clinical competency and build a precision education system capable of dynamically adapting to individual learning needs. The implementation revolves around the following four aspects:

(1) Progressive Surgical Skills Training
Following a four-step approach of "basic skills training → live surgery demonstrations → advanced simulated skills training → animal surgery practical training," students' surgical skills are enhanced progressively. Through an intelligent course selection platform, students independently choose required training modules based on their skill mastery levels and complete the teaching content step by step in a mission-based manner. This approach breaks away from the rigid model of uniform instruction and establishes personalised, precision skills training.

(2) Clinical Thinking Training and Evaluation
We have implemented a precise clinical thinking training program structured around three modules: "preoperative, intraoperative, and postoperative." This aims to cultivate students' clinical competencies, enabling them to be capable of managing preoperative preparations, able to assist effectively during procedures, and skilled in observing and managing postoperative care. The training and assessment of are conducted through Multidisciplinary Team (MDT) discussions. AI-assisted learning is introduced by inputting student MDT discussion content into AI models, which perform automated, fine-grained, multi-dimensional evaluations. This allows instructors to focus on in-depth analysis of students' thinking processes, provide guidance at critical junctures. Consequently, a new collaborative model of "AI-powered quantitative assessment coupled with teacher-led qualitative guidance" has been established.

(3) Comprehensive Enhancement of Non-Technical Skills: Precision Course Provision for Individuals
Building a Non-Technical Skills (NTS) training platform focusing on students' comprehensive abilities in clinical contexts, including communication, teamwork, leadership, situational awareness and decision-making, reflective practice. Supported by modular scenario-based simulation teaching grounded in clinical cases, students can autonomously select and participate in courses based on their own interests and weaknesses, meeting the differentiated development needs of different individuals.

(4) AI-Driven Precision Intervention:
Creating an AI-powered intelligent teaching platform that systematically records and analyses operational data from the surgical practical training system and student assessment results. This provides the teaching team with precise insights, helping teachers identify common weaknesses and individual special needs, thereby enabling continuous optimisation of teaching strategies and precise interventions.

Results
By establishing a digital platform-driven precision education ecosystem with deeply integrated roles for AI and instructors, this project has achieved a shift towards "precision learning," providing students with customised training pathways, modular courses, and personalised feedback.

Conclusion

This project offers a replicable new model for surgical practical education to accommodate individual differences and achieve personalised training.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 12.45pm

Hua Yue 2, Level 3

SHORT COMMUNICATIONS 12

Exploring Student Insights on Advance Care Planning: A Tale of Peer Role-Playing vs. Encounters with Standardised Patients
Piyarat Rojsanga, Thailand

Empowering Faculty Development for Health Professions Educators with AI Agents
Hua Chai, China

Research Status and Hotspot Analysis in Obstetrics & Gynaecology Education and Teaching Reform Based on Citespace
Yun Huang, China

The Impact of Three Years Application of the Health Care Team Challenge on Inter-Professional Collaborative Practice: A Realist Evaluation Approach
Yuen Ling Tai, Singapore

Evaluating a Pre-Clinical Orthodontic Training Using Haptic-Enhanced VR Simulation System
Luwei Liu, China

Enhanced Pharmacology Education Through Systematic Case Scenarios: A Focus on Hypertension Medications
Sheng Yan, Hong Kong S.A.R

The Relationship Between Traditional Medicine Body Constitution, Personality Traits, and Extracurricular Activity Participation Among Vietnamese Medical Students
Chi Loc Ha, Vietnam

Overcoming the Challenges of Virtual Reality (VR) Simulations for High Acuity, Low Opportunity (HALO) Training in Emergency Medicine
Wei Xiang Ng, Singapore

Improving Standardised Patient Quality – A Key to Enhancing Inter-Professional Education (IPE)
Vy Bui Thi Ha, Vietnam

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EXPLORING STUDENT INSIGHTS ON ADVANCE CARE PLANNING: A TALE OF PEER ROLE-PLAYING VS. ENCOUNTERS WITH STANDARDISED PATIENTS

Rojsanga P

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Background and Aims
Advance care planning (ACP) presents significant challenges in end-of-life care, particularly when it comes to discussing a patient's condition, impending death, and future care options. Recent studies have explored innovative methods to enhance ACP education for medical students, including computer-based decision aids, face-to-face training, and the use of standardised patients (SP) or peer role-playing (PRP). These approaches aim to improve students' knowledge, communication skills, and confidence in handling sensitive conversations with both competence and compassion. This research specifically assesses students' perspectives on using SP and PRP as tools for ACP communication training.

Methods
In addition to attending a communication training regarding advance care planning with SP and PRP, students received orientation regarding the fundamental ideas of ACP. They were required to fill out surveys on their confidence levels both before and after the training, as well as their opinions on the following topics: professionalism, attitude, empathy, applicability, and satisfaction worthiness.

Results
31 sixth-year medical students participated: post-self-confidence increased significantly when compared with baseline ($p<0.001$ in both groups) but there was no difference between groups ($p=0.71$). The levels of satisfaction were higher in the PRP group, but no statistical significance between the PRP and SP groups included improved professionalism (4.68 vs. 4.58 in the SP, $p=0.18$), attitude (4.58 vs. 4.54, $p=0.74$), empathy (4.54 vs. 4.45, $p=0.45$), applicability (4.61 vs. 4.55, $p=0.57$), and satisfaction worthiness (4.10 vs. 4.06, $p=0.74$).

Conclusion
By following the guidance provided in both the SP and PRP modules, medical students demonstrated a significant boost in their proficiency in ACP. These two modules not only show striking similarities in fostering skill development, but are also widely praised for their effectiveness and the high satisfaction they generate among learners.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EMPOWERING FACULTY DEVELOPMENT FOR HEALTH PROFESSIONS EDUCATORS WITH AI AGENTS

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Background and Aims
Generative Artificial Intelligence (GenAI) in health professions education mostly targets student learning, often neglecting educators' professional development. Our work explores the potential of AI agents to enhance teaching competencies of health professions educators, addressing the lack of interaction and personalised support in current faculty development programmes.

Methods
We developed "Huaxi Xiaozhu", a series of customised AI agents for health professions education with external knowledge bases (EKB) established and Retrieval-Augmented Generation (RAG) technology embedded, implemented in faculty development programmes at West China Medical Centre of Sichuan University since May 2024. We assessed the output quality, educators' satisfaction with AI agent-integrated programmes, and post-programme AI agent's usage.

Results
"Huaxi Xiaozhu" outperformed five mainstream Chinese large language models (LLMs) in output quality with health professions education-related prompts ($p<0.05$). In a series of faculty development programmes integrated with "Huaxi Xiaozhu" attended by 92 educators, participants showed high satisfaction (97.8%) with the integration of AI agents and a strong willingness to use AI agents after the programmes (97.8%). However, after a programme themed on BOPPPS model attended by 19 educators, the usage of the AI agent was relatively low (21.1%) during the initial 40 days. In the subsequent semester, the majority of the participants had used the AI agent (73.7%) and were able to complete instructional designs with BOPPPS model (84.2%).

Conclusion
Considering its high output quality and high satisfaction of health professions educators, the AI agents could be a promising approach for GenAI-empowered faculty development. AI agents can provide round-the-clock personalised support for professional learning. Educators require a significant period to familiarise themselves with AI agents, understanding their distinctions from LLMs, and mastering prompt skills. Faculty development staffs should provide post-programme reminders for usage, offer convenient access, and share practical tips to enhance educators' AI competencies.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

RESEARCH STATUS AND HOTSPOT ANALYSIS IN OBSTETRICS & GYNECOLOGY EDUCATION AND TEACHING REFORM BASED ON CITESPACE

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Background and Aims
To explore the research status and hotspot of obstetrics & gynaecology education and teaching reform in China based on CiteSpace software.

Methods
Using CiteSpace 6.3.R1 visualised analysis software as a research tool, the Chinese literatures collected in CNKI database from January 2000 to December 2024 were visually analysed, including the annual number of publications, publishing institutions, journals, keyword clustering and emergence analysis.

Results
A total of 473 Chinese publications were included. Since 2005, the number of annual publications in this field has been more than 10 articles, with the highest number of annual publications in 2019 (34 articles), and the number of annual publications has shown a fluctuating upward trend in the past two decades. These papers were published by 286 institutions, and the top three institutions were Department of Obstetrics and Gynaecology, the Third Xiangya Hospital of Central South University, Hunan Polytechnic of Environment and Biology and Department of Obstetrics and Gynaecology, Shengjing Hospital of China Medical University. The keywords cluster map and emergent word analysis suggest that "ideological and political education", "MOOCs", "micro lessons" and "flipped classroom" are hot topics in recent years.

Conclusion
The obstetrics & gynaecology education and teaching reform research in China is in a steady state of development, but the cooperation between researchers and research institutions needs to be strengthened, to carry out high-quality teaching and research contributing to the development of obstetrics and gynaecology.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE IMPACT OF THREE YEARS APPLICATION OF THE HEALTH CARE TEAM CHALLENGE ON INTER-PROFESSIONAL COLLABORATIVE PRACTICE: A REALIST EVALUATION APPROACH

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Background and Aims
Literature suggests that there are positive outcomes from Interprofessional Practice and Education (IPE) concerning changes in attitude, knowledge and skills, yet there is limited evidence about changes in professional behaviour and patient outcomes. The Singapore Ministry of Health highlighted the significance of IPE in 2010, and it was then incorporated into respective health professional programmes. The purpose of this study is to use realist evaluation methodology to explore and understand the impact of a three-year implementation of the Health Care Team Challenge (HCTC) underpinned by interprofessional practice and education principles upon health professionals' practice at the National University Hospital of Singapore.

Methods
Realist evaluation seeks to establish what works, for whom, in what circumstances and how. Realist evaluation methodology was chosen for this study and the aim is to develop a hypothesis, identify mechanisms and formulate Context-Mechanism-Outcome Configurations (CMOCs) based upon the views of participants in the Health Care Team Challenge.

10 semi-structured interviews were conducted to explore participants' views of the Health Care Team Challenge.

Results
The study identified four key mechanisms contribute to interprofessional collaborative practice, which were:

1) Culture issues which included organisation culture, professional culture, and team culture.
2) Leadership issues that included support and value of interprofessional team from the organisation leader and department leader, as well as the interprofessional team leaders' willingness to reach across disciplines.
3) Nature of interprofessional communication.
4) Available platforms to demonstrate interprofessional values and practices.

The study formulated a total of five CMOCs, which included one related to HCTC, and four related to interprofessional collaboration.

The findings resonated with other international studies, and in addition, the impact of local culture was discussed and compared with other Asian studies. Following realist evaluation, two working hypotheses evolved from the totality of the study.

Conclusion
This study suggested a positive impact of the HCTC and indicated the need for interprofessional education to occur within post-graduate education and continuing professional development for health care professionals. This study offers a reference point for other teams keen to review and refine team functioning.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EVALUATING A PRE-CLINICAL ORTHODONTIC TRAINING USING HAPTIC-ENHANCED VR SIMULATION SYSTEM

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Background and Aims
Virtual medical education has been used in the preclinical training of dentistry. The study aimed to evaluate the effectiveness of orthodontic bracket bonding training using the haptic-enhanced virtual reality simulation system.

Methods
Twenty-six orthodontic postgraduates were recruited to attend the preclinical training using the virtual training system, consisting of the Virtual Learning Network Platform (VLNP) and the Virtual Simulation Training and Evaluation System (VSTES). Students were asked to perform the online training on VLNP within one week and the offline section on VSTES once each week for 6 consecutive weeks. Students' training outcomes were assessed using the 3D scanning data of the fixed bracket position before and after the training. Students were asked to provide feedback through a survey to identify their perceived benefits or drawbacks of this system. Student's t-tests or Wilcoxon signed-rank tests were used to compare differences in the outcomes, including the total score and each tooth score, between the pre- and post-training and among each online or offline virtual training session. The level of significance was $P < 0.05$.

Results
The final online test scores of 'etching', 'rinsing', 'positioning bracket position', and total items in the online interactive virtual practicing using VLNP were 3-17% higher than those in the formative test ($P<0.05$). Seven items of 'cleaning', 'coating acid etchant', 'etching time', 'rinsing off acid etchant', 'rinsing time', 'coating adhesive', 'positioning bracket position' and the total scores were significantly different among six offline results ($P<0.05$). With the increased number of practices, the performance gradually improved. All post-training scores of bracket bonding demonstrated significant improvement, showing an increase of approximately 50% compared to pre-training scores ($P<0.05$). Most students agreed that this system helped familiarise them with the clinical procedure due to its simulation of the real clinical environment (88.46%) and the availability of time and space for practice without limitation (76.92%). The majority agreed that their improved skills benefited from the offline system, which allowed them to adjust three-dimensional bracket position and receive the real-time feedback.

Conclusion
A virtual orthodontic training system with VLNP and VSTES could help students improve their clinical skills of orthodontic bracket bonding during preclinical training.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ENHANCED PHARMACOLOGY EDUCATION THROUGH SYSTEMATIC CASE SCENARIOS: A FOCUS ON HYPERTENSION MEDICATIONS

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Background and Aims
Traditional pharmacology education often emphasises rote memorisation, leading to confusion and superficial understanding among health professional students. This study aims to evaluate the effectiveness of Competency-Based Medical Education (CBME) simulation-based learning modules designed to enhance pharmacological knowledge and clinical reasoning skills among health professional students, specifically focusing on commonly prescribed hypertension medications.

Methods
The project was structured into two phases: design and testing. In the first phase, clinical scenarios centred on hypertension medications were created, highlighting pharmacological mechanisms, potential side effects, and patient contraindications, in line with the latest guidelines from the European Society of Hypertension (ESH). To ensure the scenarios met educational needs, insights were gathered from a diverse group, including educators and clinicians, as well as clinical and basic sciences students. These multiple perspectives were aimed at ensuring students' learning needs were taken into consideration while maintaining clinical accuracy and professional standards during content development. Systematic case scenarios were developed as simulation-based learning modules using real-life complex scenarios delivered with clinical data through a stepwise approach. In the second phase of testing, these systematic case scenarios were evaluated using a mixed-methods approach with 10 Bachelor of Medicine and Bachelor of Surgery (MBBS) students. Pre- and post-course knowledge tests assessed basic sciences concepts and clinical approach. In-depth individual interviews were conducted to collect insights into learners' thought processes regarding the treatment of hypertension.

Results
Statistical analysis revealed a significant improvement in knowledge retention, with post-test scores (mean = 87%) notably higher than pre-test scores (mean = 55%), demonstrating the effectiveness of the systematic case scenarios ($p<0.05$). Three themes emerged from the qualitative interviews. First, the difference in learning approach between basic sciences and clinical students highlighted the need for tailored educational strategies. Basic sciences students benefited from systematic case scenarios as training focused on developing structured clinical reasoning skills, while clinical students utilised the module to refine their clinical application skills. All students stand to enhance their clinical competencies through exposure to simulated cases, fostering a more robust application of knowledge in real-world medication management. Second, traditional didactic learning of pharmacology centred on rote memorisation can be transformed with simulation-based learning. The systematic case scenarios presented knowledge in digestible segments, focusing initially on first-line medications while also recognising the relevance of second- and third-line drugs. Students learned to connect specific drugs to patients based on clinical history and data, enhancing their ability to navigate the reasoning behind prescriptions through evidence-based feedback. Third, effective feedback mechanisms are necessary for self-learning environments. Optimal feedback processes involve feedback at every checkpoint across a learning module, as well as comprehensive rationale given behind every decision, errors, and successes.

Conclusion
By integrating case-based systematic learning into pharmacology education, this project strengthened students' grasp of hypertension medications, preparing them for real-world clinical challenges. This approach aligns with best practices and effectively addresses the educational needs of health professional students in Hong Kong. Future research should focus on the long-term impact of such educational interventions on patient safety metrics.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE RELATIONSHIP BETWEEN TRADITIONAL MEDICINE BODY CONSTITUTION, PERSONALITY TRAITS, AND EXTRACURRICULAR ACTIVITY PARTICIPATION AMONG VIETNAMESE MEDICAL STUDENTS

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Background and Aims
In medical education, encouraging students to engage in extracurricular activities-particularly scientific research-is essential for the holistic development of personal and professional competencies. Wang et al. (2024) highlighted associations between personality traits, Traditional Chinese Medicine body constitution, career suitability, and level of extracurricular participation. However, no study in Vietnam has yet investigated the combined relationships among these factors.

Objective: To investigate associations between personality traits, TM body constitution, and extracurricular activity participation among medical students.

Methods
A cross-sectional study was conducted from April to May 2025 at the University of Medicine and Pharmacy at Ho Chi Minh City. A total of 447 students from six faculties were recruited using convenience sampling. Participants completed structured online questionnaires including: demographic information, extracurricular activity characteristics, scores for nine Traditional Medicine (TM) constitutional types using the Vietnamese version of the Constitution in Chinese Medicine Questionnaire (CCMQ) - assessing one balanced constitution and eight unbalanced constitutional types (Qi-deficiency, Yang-deficiency, Yin-deficiency, Phlegm-dampness, Damp-heat, Blood-stasis, Qi-stagnation, and Inherited-special) – and personality traits measured by the Vietnamese version of EPI, evaluating extraversion-introversion and neuroticism dimensions. Logistic and linear regressions were used to assess the associations between variables.

Results
There was a strong positive association between students' level of focus during extracurricular activities and the likelihood of achieving a balanced Traditional Medicine constitution (TMC). Highly focused students were 10.34 times more likely to have a balanced constitution compared to less focused peers (95% CI: 3.11-36.62; $p < 0.001$).

Regular weekly extracurricular participation was positively associated with balanced constitution, whereas students with higher Damp-heat constitution scores had significantly lower participation likelihood (OR = 0.93; 95% CI: 0.86-0.99; $p = 0.029$). In contrast, students with higher extraversion scores or a balanced TMC were more likely to participate throughout the week.

The Qi-stagnation constitution showed a negative trend with students' focus ability during extracurricular activities (OR = 0.98; 95% CI: 0.96-1.00; $p = 0.055$), approaching statistical significance. After adjusting for confounders, the model showed that several TMC types - including balanced, Damp-heat, and Qi-stagnation - along with traits such as extraversion, neuroticism, and attentional focus, were significantly associated with extracurricular engagement.

Conclusion
The study shows that achieving a balanced TMC among students is significantly associated with psychological and behavioural factors, especially focus and frequency of extracurricular participation. Although the cross-sectional design cannot prove causality, the results suggest TM constitutional assessment combined with personality evaluation can help educators identify students' constitutional patterns to support their extracurricular engagement.

Incorporating TM constitutional factors into learner-centred education may help enhance learning motivation, mental health, and academic engagement. Medical training programmes may consider integrating evidence-based TM methods, such as dietary adjustments and traditional Vietnamese

health exercises like the Nguyen Van Huong Health Cultivation method, to support regulation of constitutional imbalances and foster balanced constitution development. This comprehensive approach promotes sustainable traditional and modern medicine development in medical education by providing a practical framework for helping students achieve balanced constitution, potentially enhancing their extracurricular participation.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

OVERCOMING THE CHALLENGES OF VIRTUAL REALITY (VR) SIMULATIONS FOR HIGH ACUITY, LOW OPPORTUNITY (HALO) TRAINING IN EMERGENCY MEDICINE

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Background and Aims

Conventional simulation often faces logistical and fidelity-related limitations when applied to High Acuity, Low Opportunity (HALO) scenarios. To address this gap, we developed a series of Virtual Reality (VR) simulations to train emergency department (ED) doctors and nurses. These scenarios included vehicle entrapment extrication, emergency thoracotomy, peri-mortem Caesarean section, and normal vaginal delivery. VR was selected for its potential to provide immersive, scalable, and reusable training experiences for rare but critical events.

Methods

Following each VR session, participants completed open-ended surveys exploring their learning experience. A thematic analysis was conducted on the qualitative feedback gathered to identify recurring perceptions of the educational value and limitations of VR-based training.

Results

Feedback from 20 participants revealed five key themes:

1. Immersion and Engagement: VR was described as highly engaging, realistic, and effective in fostering emotional and cognitive investment. (Keywords: “immersive experience”, “real life-like”, “interactive and fun”)
2. Scenario Realism and Variety: Participants valued exposure to rare, complex clinical scenarios not easily recreated in conventional simulations. (Keywords: “most realistic after the real thing”, “visualisation of accident scene”, “realistic layout of resus room”, “wide range of case scenarios”)
3. Cognitive Skills and Decision-Making: VR effectively supported rehearsal of decision-making algorithms and structured clinical reasoning under pressure. (Keywords: “ability to practice decision-making algorithms”, “practice the steps”, “good to rehearse process”, “awareness training”)
4. Procedural Realism and Limitations: The absence of haptic feedback limited VR’s utility for procedural skill training, particularly for nuanced tasks such as surgical dissection or tool handling. (Keywords: “No tactile feedback”, “lack of haptics”, “difficult to do the procedure”, “mannequin more realistic for certain steps”)
5. Usability and User Experience: Motion sickness, disorientation, and unclear user interfaces were noted as barriers to learning, along with limited visual or tactile response when interacting with the environment. (Keywords: “connectivity issues”, “headset uncomfortable”, “motion sickness”, “tools difficult to use”)

In response to these themes, we implemented several strategies to optimise the VR learning experience:

- Standardised Pre-briefing: Each session began with a pre-brief explaining learning objectives, potential discomforts, and the known limitations of the VR environment (e.g., lack of tactile feedback).
- Tutorial and Onboarding: A video tutorial introduced participants to VR navigation, followed by 15 to 20 minutes of free exploration to reduce cognitive load and build familiarity before scenarios commenced.
- Structured Debriefing: A debrief guide based on the diamond debrief model was created to steer discussion toward learning objectives. This helped redirect attention from technical glitches to reflective learning.
- Iterative Testing: We worked closely with developers in multiple rounds of playtesting to incorporate user feedback and refine functionality, ensuring that user concerns were addressed or minimised.

Conclusion

VR offers significant potential for training in HALO scenarios, particularly for immersive cognitive and team-based learning. However, its limitations in procedural realism and user interface design must be carefully managed. By integrating structured orientation, expectation setting, and guided debriefing, educators can enhance the effectiveness of VR simulations. These adaptations provide a roadmap for incorporating VR into emergency medicine training programmes.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

IMPROVING STANDARDISED PATIENT QUALITY – A KEY TO ENHANCING INTER-PROFESSIONAL EDUCATION (IPE)

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Background and Aims
Interprofessional Education (IPE) plays a pivotal role in equipping healthcare students with essential competencies for effective interdisciplinary collaboration in patient care, and has been integrated into the curriculum at the University of Medicine and Pharmacy at Ho Chi Minh City for several years through two modules: IPE-1 and IPE-2. In the IPE-1 module, students from various health disciplines collaborate in small groups to develop treatment and care plans for a Standardised Patient (SP). This approach aims to equip students with key competencies necessary for effective teamwork in their future practice. Within this framework, the SP constitutes a critical component, requiring a variety of skills, including memorisation of scripts, realistic emotional expression appropriate to each scenario, and effective feedback provision to students. Given our ongoing efforts to enhance SP quality, this study aimed to evaluate the current performance of Standardised Patients (SPs) and identify strategies for improvement, thereby strengthening the overall quality of IPE teaching.

Methods
In the academic year 2024-2025, we collected evaluations of Standardised Patient performance from faculty members (or lecturers). Each student group was supervised by two lecturers. During each session, lecturers independently assessed SP quality through an online survey (Microsoft Forms) based on three criteria-script memorisation, emotional expression, and appropriateness of feedback provided to students-rated on a three-level scale (Good, Average, Poor). Lecturers were required to provide specific descriptions or evidence to justify their ratings. Data was analysed descriptively using Excel.

Results
We collected 52 evaluation forms. For “Script memorisation”, the proportions rated ‘Good, Average and Poor’ were 62.3%, 34.0% and 3.8%, respectively. For “Emotional expression”, the corresponding figures were 41.5%, 35.8% and 22.6%. For “Appropriateness of feedback”, the figures were 39.6%, 34.0% and 26.4%.

These findings indicate that the overall quality of Standardised Patients (SPs) remains sub-optimal and that targeted measures are required to improve their performance. Regarding the “Appropriateness of Feedback”, most SPs were rated as ‘Poor’ because their feedback lacked specificity or was overly focused on disciplinary content, rather than addressing the core IPE competencies that the course aims to develop. Based on these results, we retrained the SPs and re-evaluated them in the subsequent teaching cycle. Repeated cycles of assessment and training have already yielded notable improvements.

Conclusion
The quality of Standardised Patients (SPs) is pivotal to effective IPE instruction. Regular evaluation and targeted retraining are essential to enhancing SP performance. At the University of Medicine and Pharmacy at Ho Chi Minh City, these practices are continuously implemented throughout our IPE programme to improve teaching quality and have already yielded positive outcomes.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 12.45pm

Paris Hall & Rome Hall, L5

SHORT COMMUNICATIONS 13

Exploring the Attitude and Barriers of Medical Students Towards Student-Led Integration of Climate Change Content into the Curriculum
Nurin Afiqa Md Yadi, Malaysia

Interprofessional and Team Communication in the Operating Room: The Anaesthesia Residents' Perceptions
Jiaxin Liu, China

Faculty Development in Health Professions Education: Exploring Need Assessment, Challenges, and Opportunities in Vietnam
Minh Thuy Ha, Vietnam

Improving Care in People Living with HIV Within an Endocrinology Senior Residency Programme
Cherng Jye Seow, Singapore

Choosing the Best Path: A Comparative Study of Problem-Based vs. Team-Based Learning Preferences Among Medical Students
Phubordin Yarnprapas, Thailand

Assessing Digital Health and AI Literacy Among Medical Students
Zheng-Wei Lee, Singapore

Beyond the Role: Exploring Characteristics, Experiences, and Satisfaction of Standardised Patients at a Vietnamese Medical School
Van Anh Nguyen, Vietnam

AI-Powered Gamification for Clinical Ethics Education: A Retrospective Comparative Study
Hai Hu, China

Knowledge of Skin Tear Among Vietnamese Nursing Students: A Cross-Sectional Survey
Thi Thuy Nhien Huynh, Vietnam

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EXPLORING THE ATTITUDE AND BARRIERS OF MEDICAL STUDENTS TOWARDS STUDENT-LED INTEGRATION OF CLIMATE CHANGE CONTENT INTO THE CURRICULUM

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Background and Aims
Climate change has become an increasingly pressing issue over the last decade with global temperatures expected to rise above 1.5° over pre-industrial levels. Despite healthcare itself contributing to global carbon emissions, there is a lack of climate content consolidation in medical school curricula particularly in Low and Middle Income countries (LMICs). This study aims to explore the attitudes and behaviours of medical students towards student-led integration of climate change content into the medical school curriculum.

Methods
This study utilised a qualitative approach via in-depth interviews. We included active medical students at University Malaya or those who graduated from the programme within two years, and excluded medical students from other universities or those who transferred from other programmes. Participants were recruited using a combination of convenience and snowball sampling methods. Eleven interview questions with two potential probes each were devised with input from experts in medical education. The questions covered participants' understanding of climate change, the relationship between healthcare and climate change, the definition of "student-led", barriers to student-led integration of climate change content, and priority areas in climate change content. The interviews were conducted either online or face-to-face. They were recorded and transcribed verbatim using transcription software. Initial codes were assigned to the transcripts and analysed via thematic analysis by two independent coders (NA, SAN). Any differences were resolved by consensus.

Results
Twenty medical students were interviewed for this study. The interviews ranged from 10 to 30 minutes. Thematic saturation was reached with the seventeenth participant. The findings were organised into six themes, 23 sub-themes, and 134 codes. The six themes were: 1) Behavioural intentions and tendencies, 2) Beliefs and knowledge about climate-related issues, 3) Institutional challenges for climate change integration, 4) Complex interpersonal, educational, and structural challenges, 5) Content focus, 6) Mode of delivery. Most students recognised the effects of climate change on healthcare, including zoonotic consequences, increased disease burden, and system-level disruptions to the healthcare system. However, there was a knowledge gap in identifying how healthcare activities contribute to climate change. Theme three highlighted curriculum unpreparedness and subpar institutional efforts. Nevertheless, students also expressed resistance to change due to an overwhelming curriculum, low personal relevance and interest in climate-related issues, and limited empowerment and support for student leadership. Emerging codes in theme five and six included relevance of climate change to healthcare and the promotion of sustainability practices.

Conclusion
This study shows that medical students at different stages support integrating climate change content, but expressed concerns about a packed curriculum. Most, however, are unaware of the environmental harms caused by healthcare-a gap requiring urgent attention, as uninformed practices may worsen environmental damage. We recommend introducing a student advocacy framework to support structured, student-led integration of climate content into the curriculum. This will help foster climate-literate healthcare professionals equipped with sustainable practices. Such efforts are especially vital in low- and middle-income countries (LMICs), where limited resources constrain responses to climate-related health impacts. Preparing future doctors to address the rising disease burden linked to climate change, while promoting environmentally responsible healthcare, is essential for achieving global health goals.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

INTERPROFESSIONAL AND TEAM COMMUNICATION IN THE OPERATING ROOM: THE ANAESTHESIA RESIDENTS' PERCEPTIONS

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Background and Aims
Competency-based medical education (CBME) is adopted for physician training worldwide. Interprofessional and team communication are vital aspects of communication and collaboration competency. Anaesthetists engage daily in interprofessional teamwork within the operating room. The quality of team collaboration is recognised as a key factor influencing surgical patient safety. Numerous studies focus on anaesthesia residents' physician-patient communication; however, little attention has been given to their interprofessional and team communication in China. Our study aims to explore anaesthesia residents' perceptions of interprofessional and team communication in the operating room, identify their learning needs, and offer insights for improving residency training and communication curriculum development.

Methods
We employed a mixed-method approach combining questionnaire surveys and semi-structured interviews.

From May to June 2024, we distributed 60 electronic questionnaires to anaesthesia residents via the Wenjuanxing platform. The questionnaire included scale items, open-ended questions, and multiple-choice questions. Scale items used a 10-point Likert scale, and reliability and validity were analysed using SPSS 24.0. Open-ended responses were coded and categorised through content analysis. Multiple-choice questions were analysed together with the Non-Technical Skills (NOTECHS) system (Robertson et al., 2014).

Semi-structured interviews were conducted from August 2024 to April 2025. Twelve anaesthesia residents participated in one-on-one interviews, each lasting 30-40 minutes. The interview content was transcribed verbatim, subjected to open coding and thematic categorisation, and analysed using the Taylor and Hamdy adult learning model (AMEE Guide No. 83, 2013). The interview process continued until thematic saturation was achieved.

Results
A total of 58 valid questionnaires were collected, with a response rate of 96.7%. The reliability and validity were acceptable. The residents had formed impressions of the three major teams (surgical, anaesthesia, and nursing) in the operating room and developed unique perspectives on the NOTECHS domains.

Twelve residents took part in semi-structured interviews, with nine of them at the residency training stage. The content of the interviews was coded and categorised into five themes:

1. Characteristics of communication and collaboration in the operating room.
2. The ways of communication and collaboration among anaesthesia residents in the operating room.
3. Factors affecting residents' interprofessional and team communication.
4. The methods anaesthesia residents employed to improve their interprofessional and team communication skills.
5. Educational interventions to enhance interprofessional and team communication among anaesthesia residents.

These themes correspond with the five stages of Taylor and Hamdy's adult learning model.

Conclusion
Interprofessional and team communication among anaesthesia residents needs enhancement. Medical educators can tackle this issue using the following strategies: 1. Clarify the impact of teamwork on

patient outcomes: emphasise the positive influence of operating room teamwork on patients to motivate residents to enhance their communication and collaboration skills. 2. Strengthen residents' clinical ability and confidence: improve residents' knowledge and technical skills and increase their confidence in communication and collaboration during teamwork. 3. Advance faculty development: enhance the quality of clinical teaching. Utilise Case-Based Learning (CBL) and simulation training to support residents' learning of interprofessional and team communication. 4. Optimise the workplace culture: minimise residents' pressure, especially stress caused by workload and hierarchical structures, and promote a supportive environment that encourages positive teamwork.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

FACULTY DEVELOPMENT IN HEALTH PROFESSIONS EDUCATION: EXPLORING NEED ASSESSMENT, CHALLENGES, AND OPPORTUNITIES IN VIETNAM

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Background and Aims
Faculty development (FD) encompasses educational activities designed to enhance educators' knowledge, skills, and academic competencies. Developing effective FD programmes is essential to support ongoing medical education reforms in Vietnam, particularly at VinUniversity. This study identifies FD priorities within Health Professions Education (HPE), focusing on faculty members affiliated with the College of Health Sciences, VinUniversity, Hanoi, Vietnam, to inform the design of tailored FD programmes.

Methods
A descriptive cross-sectional needs assessment was conducted using an electronic survey that addressed faculty development needs in teaching, research, and leadership; perceived barriers to accessing development initiatives; and preferred formats for organising training programmes. Data was collected over a two-months period in late 2024.

Results
Out of approximately 350 faculty members, 121 completed the survey (response rate: 34.6%), representing a diverse range of institutions and disciplines. The findings revealed significant faculty development needs across teaching, research, and leadership domains. Key barriers to participation included lack of time (80%), language challenges in English-delivered programmes (31%), and high programme costs (36%). The preferred training formats were workshops and seminars (76%), hands-on training (75%), and online courses (65%). The majority (76%) of respondents expressed willingness to serve as trainers, demonstrating strong potential for peer-leading initiatives.

Conclusion
This study elucidates the faculty development priorities, challenges, and strategic preferences at College of Health Sciences, VinUniversity offering insights into enhancing health professions education in Vietnam. Key findings reveal a strong emphasis on advancing skills in teaching evidence-based medicine, research methodology, and leadership through international collaboration, underscoring the need for comprehensive professional growth. Significant barriers, including time constraints, financial limitations, and language difficulties, highlight the necessity for accessible, adaptable FD solutions. The faculty favours interactive modalities like workshops and hands-on training, with a notable willingness to lead peer-driven initiatives. Lessons learned advocate for contextually tailored, evidence-informed FD programmes that empower educators, fostering sustainable HPE improvement regionally and globally.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

IMPROVING CARE IN PEOPLE LIVING WITH HIV WITHIN AN ENDOCRINOLOGY SENIOR RESIDENCY PROGRAMME

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Background and Aims
With advances in the treatment of HIV infection, the proportion of PWH aged above 50 years in Singapore has increased from 18.1% in 2002 to 23% in 2018. They are at higher risk of comorbidities including Endocrine disorders such as Diabetes Mellitus (DM) and Osteoporosis. Unfortunately, many healthcare systems are not adequately resourced or designed to address these issues. Care for older PWH is usually fragmented and not tailored to their unique needs. In the US, there is suggestion that the number of HIV clinicians is decreasing and additional training to primary care clinician has been proposed to help alleviate the HIV provider shortage. While HIV-Endocrinology is an emerging field within Endocrinology, there is concern regarding the confidence amongst Senior Residents (SRs) in its management.

The aim of this study is to assess the knowledge, practice patterns and confidence of Endocrine SRs in managing Endocrine Disorders in PWH. With the results, we endeavour to design a new curriculum to improve their competence in this area.

Methods
An anonymous 31-item survey was administered to 23 endocrinology senior residents and aimed to assess their attitudes, treatment philosophy and confidence in the treatment of endocrine disorders in PWH. With the results, we aimed to introduce measures to address the shortcomings and improve their confidence.

Results
73.9% of SRs participated in this survey conducted in 2016. All of them believe they have an ethical responsibility to provide care for PWH. However, more than half (58.8%) felt inadequate in its management. 82.4% deemed HIV Endocrinology as an emerging field and were open to pursuing it as a sub-speciality. Most SRs would not compromise medical treatment for a PWH. With the survey results, we worked together to incorporate HIV endocrinology into the senior residency programme. Over the next eight years, several measures introduced included (i) Recurring case-based discussion addressing both psychological and medical aspect of HIV care (ii) Scholarly activities such as journal club presentation and participation in HIV academic conferences (iii) Multidisciplinary Continuing Medical Education sessions involving endocrinologists, infectious disease physicians, pharmacists, nurse practitioners, medical social workers (iv) Managing patients under supervision in a joint HIV-Endocrinology clinic

Conclusion
Many SRs are not confident in managing Endocrine Disorders in PWH. This is largely fuelled by the lack of exposure, experience and education on HIV-Endocrinology. Measures introduced to better training in this field such as case-based discussion, multidisciplinary meetings, participation in scholarly activities and rotation to HIV-Endocrinology clinics, have improved the confidence of endocrine SRs in managing these patients. Several SRs have also expressed interest and moved on to managing these patients independently upon graduation. Given that HIV-Endocrinology caseload is projected to increase over the years, there is an urgent need to increase training in this neglected field. This study suggests that an increased focus on HIV medical education can increase confidence and may help address the healthcare disparities of this underserved population.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

CHOOSING THE BEST PATH: A COMPARATIVE STUDY OF PROBLEM-BASED VS. TEAM-BASED LEARNING PREFERENCES AMONG MEDICAL STUDENTS

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Background and Aims
In the quest to enhance medical education, the effectiveness of active learning methodologies such as problem-based learning (PBL) and team-based learning (TBL) has become increasingly relevant. While both approaches promote critical thinking and collaboration, they cater to different learning styles and preferences. However, comprehensive understanding of medical students' preferences remains limited. Addressing this gap is essential, as aligning teaching strategies with student preferences could enhance engagement, satisfaction, and academic outcomes. This study investigates preclinical medical students' preferences between PBL and TBL to inform the development of targeted educational interventions that foster optimal learning environments.

Methods
This research employed a cross-sectional study design to investigate the preferences of preclinical medical students regarding PBL and TBL at Chiang Mai University, Thailand. Participants included second and third-year undergraduate medical students enrolled in the academic year 2023. Data as collected using a self-administered questionnaire designed to assess various dimensions, including student satisfaction, group dynamics, feedback mechanisms, and knowledge application associated with each learning approach. The questionnaire was validated through a pilot study, ensuring clarity and reliability of the items. Descriptive statistics summarised responses, and paired comparisons were analysed using significance testing (p-values), complemented by effect size calculations to assess practical relevance.

Results
A total of 114 medical students participated in the study. Analysis of the questionnaire data demonstrated a robust Cronbach's alpha coefficient of 0.97, indicating high internal consistency in responses. The results revealed a statistically significant preference for TBL over PBL across several key parameters. Specifically, students rated TBL significantly higher in the following categories: group support ($p=0.036$), collaborative opinion sharing ($p=0.0002$), individual attention within groups ($p=0.0034$), prior knowledge utilisation ($p=0.0013$), effective group size ($p<0.0001$), and evaluation procedures ($p=0.0322$). In contrast, PBL was only significantly perceived as valuable for its feedback mechanisms provided by group facilitators ($p=0.0013$).

Conclusion
This research highlights the critical role of student preferences in shaping effective medical education strategies. TBL was favoured for enhancing collaboration and knowledge application, while PBL offered strengths in feedback provision. These findings highlight the need for curriculum designers to integrate elements of both methodologies, leveraging their respective advantages. Future studies could investigate the impact of such integrated methods on overall student performance and satisfaction, ensuring that medical education continues to evolve in alignment with the preferences and learning styles of tomorrow's healthcare professionals.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ASSESSING DIGITAL HEALTH AND AI LITERACY AMONG MEDICAL STUDENTS

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Background and Aims
The rapid integration of digital health (DH), including artificial intelligence (AI) into healthcare necessitates medical students to develop competency in these areas. This study investigates the DHAI literacy of medical students at Lee Kong Chian School of Medicine (LKCM), Singapore, assessing their knowledge, attitudes, and usage of relevant tools and technologies. The goal is to identify gaps and areas for improvement in the current curriculum to better prepare students for a technologically evolving healthcare environment.

Methods
A survey was conducted using a 24-question Likert Scale items and an open-ended qualitative questionnaire. The survey was distributed to medical students from M1 to M5, collected a total of 131 responses. The data was analysed using descriptive statistics and qualitative content analysis. The survey aimed to measure students' knowledge, attitudes, and practices of DHAI tools, and to identify areas influencing their literacy.

Results
The results revealed moderate to high levels of DHAI knowledge among students, with variations across years of study. Interestingly, M1 students reported the highest AI knowledge. Attitudes towards AI varied, with concerns about its impact on clinical autonomy and the sufficiency of current training. While students expressed interest in using AI for productivity and learning, they also noted challenges with electronic health records (EHRs) and telemedicine. The study highlights the need for improved training and curriculum integration to enhance medical students' DHAI literacy.

Conclusion
The findings underscore the importance of refining the curriculum to address gaps in DHAI training. Institutions should focus on providing structured AI training and addressing ethical concerns. Additionally, there is a need to support students in navigating EHRs and telemedicine. Future research should explore targeted interventions on improving DHAI literacy among medical students.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

BEYOND THE ROLE: EXPLORING CHARACTERISTICS, EXPERIENCES, AND SATISFACTION OF STANDARDISED PATIENTS AT A VIETNAMESE MEDICAL SCHOOL

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Background and Aims
Standardised Patients (SPs) serve a vital function in Objective Structured Clinical Examinations (OSCEs) by providing consistent, realistic clinical interactions for student assessment. However, limited attention has been paid to their backgrounds, experiences, and motivations-factors that may influence their performance and satisfaction. This study aimed to (1) describe the demographic characteristics, experiences, and job satisfaction of SPs at Hanoi Medical University (HMU), and (2) examine the associations between SPs' personality traits and their performance of the role.

Methods
A cross-sectional study was conducted in July 2024 involving 42 SPs currently engaged in OSCE activities at HMU. Participants completed a self-administered questionnaire capturing demographic data, previous experiences, and job satisfaction. Personality traits were assessed using the 10-Item Personality Inventory (TIPI). Descriptive and exploratory statistical analyses were performed to examine trends and relationships.

Results
The mean age of participants was 36.6 (SD = 16.8) years, with 54.8% identifying as male. Occupational backgrounds varied, including retirees (19%), students (31%), office workers (12%), and freelancers (38%). Motivations to become SPs were primarily altruistic (47.6%) or financially driven (26.2%). Although 57.1% of SPs reported confidence in their roles, 61.9% found the work challenging-especially in maintaining consistent portrayals (47.6%). Physical discomfort, reported by 42.9%, stemmed from repetitive movements and student examination techniques. While 57.1% expressed satisfaction with compensation, many emphasized the need for improvements. Perceived benefits as an SP included enhanced understanding of healthcare professions (26.2%), better disease awareness and prevention (19.1%), and better knowledge of health care and health promotion (47.6%). The most prevalent personality traits were Conscientiousness (69%), Openness (64.3%), and Agreeableness (54.8%). Higher levels of Conscientiousness and Emotional Stability were associated with higher compensation expectations, while Agreeableness and Openness were linked to ease in role portrayal. Conscientious individuals were also more likely to report confidence in performance.

Conclusion
SPs at HMU reflect a diverse group in terms of background and personality traits, which may influence both their satisfaction and performance in OSCEs. While many SPs are confident and motivated, challenges such as physical strain and role complexity remain. These findings highlight the importance of aligning SP recruitment and training with individual strengths and expectations. Medical schools in similar contexts may benefit from considering personality-informed approaches to enhance the sustainability and effectiveness of SP programmes.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

AI-POWERED GAMIFICATION FOR CLINICAL ETHICS EDUCATION: A RETROSPECTIVE COMPARATIVE STUDY

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Background and Aims
Traditional lecture-based learning (LBL) in clinical ethics often struggles with student engagement and long-term knowledge retention. While game-based learning (GBL) can enhance motivation, its effectiveness can be inconsistent without proper scaffolding. Artificial intelligence (AI) offers a promising solution to act as a personalised cognitive scaffold, potentially reducing extraneous cognitive load and optimizing the learning process. This retrospective comparative study evaluated the effectiveness of a novel AI-powered game-based learning (AI-GBL) model against standalone GBL and traditional LBL in clinical ethics education.

Methods
A retrospective, three-group comparative analysis was conducted on assessment data from 83 medical students enrolled in a clinical ethics course across three consecutive academic cohorts. Students were allocated to one of three instructional models: LBL (n=27), GBL (n=29), or AI-GBL (n=27). Knowledge acquisition and retention were measured using a pre-test, an immediate post-test, and a delayed final test administered after the intervention period. In addition to performance metrics, student feedback on motivation, cognitive load, and technology acceptance was collected via post-intervention surveys. Statistical analyses, including MANOVA and follow-up ANOVA with post-hoc comparisons, were employed to assess differences in learning trajectories between the groups.

Results
The MANOVA revealed a significant multivariate effect of teaching method on learning outcomes ($p<0.05$). Univariate tests showed that the AI-GBL group achieved significantly greater knowledge acquisition from pre-test to post-test than both the GBL and LBL ($p<0.05$) groups. Critically, this advantage was sustained over time. On the delayed final test, the AI-GBL group demonstrated significantly superior knowledge retention, which was significantly less than the GBL and LGL ($p<0.05$) groups. A significant Levene's test for the retention variable ($p<0.05$) further revealed that the AI-GBL intervention produced more consistent and less variable learning outcomes among students compared to the GBL and LGL groups. Corroborating our hypothesis, survey data indicated that the AI-GBL group reported the lowest cognitive load and perceived the AI agent as a significantly more useful learning tool than the standalone game. Both game-based groups reported significantly higher motivation than the traditional lecture group.

Conclusion
The integration of a custom-trained AI agent into a gamified learning environment creates a powerful and effective pedagogical tool for clinical ethics education. The AI agent successfully functioned as a cognitive scaffold, reducing cognitive load and enabling students to achieve superior and more durable knowledge acquisition. Beyond improving average performance, the AI-GBL model fostered greater consistency in learning outcomes, suggesting a more equitable and reliable educational approach. This synergistic model effectively addresses key limitations of traditional methods and represents a promising new paradigm for training ethically competent and resilient physicians.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

KNOWLEDGE OF SKIN TEAR AMONG VIETNAMESE NURSING STUDENTS: A CROSS-SECTIONAL SURVEY

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Background and Aims
Skin tears are increasingly recognised as a significant patient safety concern, particularly among older adults and those with fragile skin. Adequate knowledge of their causes, prevention, and management is essential for nursing practice. This study aimed to assess skin tear knowledge and its associated factors among Vietnamese nursing students, to inform curriculum development and targeted educational strategies.

Methods
A cross-sectional survey was conducted at a university in Vietnam using the Skin Tear Knowledge Assessment Instrument (OASES). The instrument consists of 20 multiple-choice items covering six domains: aetiology, classification and observation, risk assessment, prevention, treatment, and specific patient populations. A total of 326 participants were included, comprising 270 undergraduate and 56 postgraduate nursing students.

Results
The overall mean knowledge score was 9.64 out of 20 (SD=2.70). Postgraduate students demonstrated significantly higher knowledge scores compared to undergraduate students ($p<0.001$). Likewise, students who had received prior wound care training scored significantly higher than those without such training ($p<0.001$).

Conclusion
The findings reveal insufficient knowledge of skin tears among Vietnamese nursing students. These results underscore the need to integrate comprehensive wound care and skin tear education into undergraduate nursing curricula to better prepare students for safe and effective clinical practice.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 12.45pm

London Hall & Washington Hall, Level 5

SHORT COMMUNICATIONS 14

Navigating Intimate Physical Examination: A Qualitative Study of Resident Doctor's Experiences on Supervising Medical Students Performing Pelvic Examinations on Patients
Sonali Chonkar, Singapore

Creating a Staff Development Roadmap for the Newly Established Faculty of Medicine, University of Moratuwa, Sri Lanka
Nadhee Peries, Sri Lanka

Enhancing Clinical Competence: Point-of-Care Cardiac Ultrasound Workshop for Postgraduate Medical Education
Sasivimon Jai-Aue, Thailand

Cultivating Intercultural Competence in Future Physicians: The "Student-Facilitator" Model in an International Medical Summer Camp
Yuting Wu, China

Integrating Ideological Education and Multidisciplinary Collaboration: An Innovative Model for Cultivating Professional Master's Students in Ophthalmology
Yunli Niu, China

The Use of a Novel App to Learn Triage in the Emergency Room for Post Graduate Nurses
Shu Woan Lee, Singapore

Selecting Future Doctors: Aligning Admissions and Curricula with Socially Accountable Graduate Outcomes in Medical Schools
Jack Haywood, United Kingdom

Pathways for Enhancing Science Communication Skills Among Medical Students: Practices from West China School of Medicine
Guan Wang, China

Assessing Changes in Communication Competence of Students Participating in the IPE 1 Module Using the ICAR Scale
Huu Hoang Nguyen, Vietnam

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

NAVIGATING INTIMATE PHYSICAL EXAMINATION: A QUALITATIVE STUDY OF RESIDENT DOCTOR'S EXPERIENCES ON SUPERVISING MEDICAL STUDENTS PERFORMING PELVIC EXAMINATIONS ON PATIENTS

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Background and Aims
There is limited understanding of Obstetrics and Gynaecology (OBGYN) residents' experiences in supervising medical students performing Pelvic Examinations (PLE) on patients. The OBGYN clinical setting can pose unique challenges to residents in their teaching and supervisory roles. Various physician-patient factors and their complex interaction in the clinical environment play a role in performing a PLE.

This study explores how residents navigate this supervisory role through the lens of the Cognitive Apprenticeship Model (CAM) by answering the research question: "What are the experiences of OBGYN Residents regarding their role in the supervision of medical students performing PLE on patients?"

Methods
This qualitative study at KK Women's and Children's Hospital (Singapore) involved purposive sampling of OBGYN residents, who had supervised medical students in PLE. Before commencement, SingHealth Centralised Institutional Review Board (SCIRB) officially approved the study (CIRB reference number: 2023/2490). Data collected through in-depth, one-on-one interviews were audio recorded, transcribed verbatim, and thematically analysed. Thematic sufficiency was reached after 10 interviews.

Results
Two themes described residents' supervisory experiences: 1. PLE Nuances and residents' support for medical students, and 2. A dearth of opportunities to perform PLE and residents' support for medical students. The first category, "PLE Nuances", highlighted students' struggle during speculum examination and had fewer opportunities to perform Bimanual Vaginal Examination. Residents supported these students struggling with PLE. The "Dearth of opportunities to perform PLE" category outlines residents' challenges and their supportive efforts concerning student gender, confidence issues, attitudes, training gaps, lack of patient consent, limited PLE indications, and systemic obstacles, resulting in reduced student opportunities for PLE.

Conclusion
Using the Cognitive Apprenticeship Model (CAM) as a lens, this study explored how OBGYN residents in an Asian setting supervised medical students performing PLE on patients. It shed light on the challenges the residents face in their supervisory role due to the intricacies of PLE and the scarcity of opportunities for medical students to perform PLE. The insights gathered from interviews with 10 residents revealed their strong support for the medical education of students. Their first-hand experiences in clinical supervision enabled them to provide valuable insights into the effectiveness of their supervision. CAM was selected due to its usefulness in informing clinical teaching within the clinical environment (Lyons et al., 2016). The intimate and sensitive nature of PLE was a challenge to supervision. Nevertheless, CAM as a "sensitising concept" aided researchers in understanding residents' supervisory role employing steps that included modelling, coaching, supporting (scaffolding), reflection, and exploration, to enable student independence in performing PLE (Collins, 2005). Patient, student, and system factors influenced residents' supervision. Despite the sensitive and complex nature of PLE, residents used some CAM components such as modelling, coaching, and scaffolding when opportunities to supervise this sensitive examination arose. Residents also reflected and explored strategies to improve their supervisory roles. These included faculty development and onboarding of residents regarding supervision expectations. These findings will inform future work to aid residents in their supervisory role for PLE and other intimate physical examinations.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

CREATING A STAFF DEVELOPMENT ROADMAP FOR THE NEWLY ESTABLISHED FACULTY OF MEDICINE, UNIVERSITY OF MORATUWA, SRI LANKA

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Background and Aims
Established in 2020 at a period of world instability brought on by the COVID-19 pandemic and severe national economic issues, the Faculty of Medicine, University of Moratuwa, was recruiting academic teachers stemming from various backgrounds with or without prior experience as an academic. Training the newly recruited academics to deliver a modern, integrated, student-centred, blended curriculum with limited resources was a double challenge for us as a new medical faculty. At different career phases, our faculty consisted of permanent, contract, and visiting staff members, all of whom had to fit our vision and mission.

Acknowledging these particular difficulties, the Department of Medical Education set out to create a thorough staff development roadmap. In a setting limited in resources, we sought to methodically equip every faculty member with the skills needed to fill several roles as medical educators, leaders, developers, collaborators and many more.

Methods
Based on Harden and Crosby's '12 roles of medical teacher', which categorise the duties of academics into six domains-information supplier, role model, facilitator, assessor, planner, and creator/developer-we expanded our framework to include three additional roles: teacher as a leader, researcher, and team worker-to better reflect the realities of our setting.

We started by blueprinting the skills needed for each of the 15 roles, specifying three successive levels of knowledge (basic, intermediate, advanced) catered to the duties of different faculty categories-from junior lecturers to senior professors. We then created a flexible training schedule combining responsive and needs-based approaches. Pre-planned sessions with larger content areas were held biannually as "staff development workshops", while brief training sessions were conducted biweekly as "lunchtime talks" to share experiences, update knowledge and disseminate new practices. We used a hybrid delivery model (in-person and online) and a strong digital repository of recorded sessions and resources via Moodle, Google Drive, and our university's Document Management System to maximise participation and accessibility and allow self-directed, flexible learning.

Results
The roadmap gave faculty development explicit direction, therefore supporting both long-term professional development and addressing immediate demands. Faculty members today have an open road to acquire teaching, evaluation, curriculum design, leadership, research, and teamwork-essential skills all around. While the online platform guarantees continuous access to training materials and recordings for all teachers, including those on temporary or visiting appointments, the flexible, hybrid approach has allowed greater participation. It also reduced the repetition of similar trainings, allowing better time management and reduced trainer burden despite both infrastructure and human resource constraints.

Conclusion
Eventually, our staff development roadmap shows that a careful, methodical strategy may promote faculty development even in difficult circumstances. We have developed a tailor-made live framework supporting both individual and institutional progress by combining accepted educational theory with useful, context-specific adjustments. Our experience should provide insightful information for other new or resource-restricted medical faculties trying to empower their teachers and offer top-notch medical education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ENHANCING CLINICAL COMPETENCE: POINT-OF-CARE CARDIAC ULTRASOUND WORKSHOP FOR POSTGRADUATE MEDICAL EDUCATION

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Background and Aims
Point-of-care cardiac ultrasound (POCUS) has revolutionised clinical practice by providing real-time, bedside diagnostic capabilities, facilitating timely decision-making, and enhancing patient management. Despite its growing importance, many postgraduate medical programmes have not fully integrated POCUS into their medical curricula, potentially limiting opportunities for trainees to develop essential diagnostic skills. This gap in education presents a need for focused workshops that teach practical ultrasound techniques, enabling postgraduate doctors to gain proficiency in performing and interpreting cardiac ultrasounds.

Methods
A structured POCUS workshop was conducted for postgraduate medical trainees to enhance their diagnostic skills and clinical competence. The workshop included lecture sessions, hands-on practice, and guided scanning exercises focused on cardiac image acquisition and interpretation. Pre- and post-workshop assessments evaluated knowledge, practical skills, and confidence in POCUS application. Statistical analysis was performed using a paired t-test.

Results
A total of 50 postgraduate medical doctors, with a mean age of 29.12 years, participated in the study. The implementation of a structured POCUS workshop demonstrated significant improvements across all assessed domains. Participants reported a substantial increase in confidence levels, rising from a pre-workshop mean score of 4.06 to 7.76 post-workshop ($p<0.001$). Practical skill proficiency, measured by the ability to guide ultrasound-based clinical practice, improved from 5.76 to 8.52 ($p<0.001$). Additionally, knowledge and expertise in point-of-care cardiac ultrasound significantly increased from 3.9 to 7.5 ($p<0.001$).

Conclusion
The POCUS workshop effectively enhanced participants' confidence, practical skills, and knowledge in point-of-care cardiac ultrasound, highlighting its value in postgraduate medical education. Significant improvements in guiding clinical practice and the importance of hands-on training for developing competence in ultrasound techniques. These findings support the integration of structured POCUS training programmes within medical curricula to better prepare clinicians for real-world patient care. Further research is warranted to explore long-term retention of skills and the impact on clinical outcomes. Point-of-Care cardiac ultrasound workshops for postgraduate medical education enhance clinical competence and promote effective patient care, particularly in emergency or resource-limited settings.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

CULTIVATING INTERCULTURAL COMPETENCE IN FUTURE PHYSICIANS: THE "STUDENT-FACILITATOR" MODEL IN AN INTERNATIONAL MEDICAL SUMMER CAMP

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Background and Aims
In the context of globalized healthcare, there is an increasing demand for physicians with strong intercultural competence. However, many short-term international programs tend to underutilise the potential of local students, relegating them to logistical or passive roles. To address this issue, we developed and implemented an innovative "student-facilitator" model within our "CQMU Study and Culture Tour" Summer Camp, systematically fostering cross-cultural skills among both international and domestic medical students.

Methods
The 2025 Study and Culture Tour hosted 66 faculty and students from over 10 countries (e.g., Belgium, Canada, UK, France, South Korea). Instead of relying on traditional volunteers, we recruited and trained over 40 bilingual Chinese students to serve as integrated "student-facilitators." These students were strategically organized into five functional teams (General Affairs, Activities, Publicity, Visiting, and Course Packages) and assigned to color-coded groups, each supporting a cohort of international participants. This model transformed their role from passive helpers to active educational partners in 3 dimensions:
1. As Cultural Bridges: they facilitated immersion during cultural activities like the "Hotpot Party" and visits to Ciqikou Ancient Town and the Dazu Rock Carvings.

2. As Academic Peer-Mentors: within specialised course packages (Metabolomics, Pediatrics, Public Health, Stomatology, Chinese Culture), they assisted in laboratory sessions, clinical observations, and traditional medicine workshops (e.g., acupuncture, calligraphy), explaining concepts and guiding hands-on practice.

3. As Activity Collaborators: they co-designed and led activities like the "Games Carnival" and Taiji sessions, fostering a collaborative and supportive community.

Results
Post-camp evaluations and reflective reports indicated significant outcomes. For Student-Facilitators, the experience notably enhanced their leadership, communication, problem-solving skills, and confidence in cross-cultural settings. They transitioned from learners to educators and cultural ambassadors. For International Participants, the peer-level interactions were consistently highlighted as the most impactful aspect of the camp. It demystified Chinese culture and medical education, leading to deeper engagement and a reported increase in cultural understanding and affinity. Several participants expressed a strong interest in future study opportunities at CQMU. For Program Quality, the "student-facilitator" model was identified as a core innovation and best practice in the project summary, credited for enhancing the program's warmth, interactivity, and overall effectiveness.

Conclusion
The "student-facilitator" model effectively transformed a short-term cultural exchange into a dynamic, peer-driven educational experience. It provides a scalable and cost-effective framework for medical universities to intentionally cultivate intercultural competence, global leadership, and professional identity in students. This approach redefines the role of international offices from administrative coordinators to strategic designers of immersive educational experiences, with significant implications for modern medical education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

INTEGRATING IDEOLOGICAL EDUCATION AND MULTIDISCIPLINARY COLLABORATION: AN INNOVATIVE MODEL FOR CULTIVATING PROFESSIONAL MASTER'S STUDENTS IN OPHTHALMOLOGY

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Background and Aims
This study aims to address critical challenges in training professional ophthalmology master's students under China's "dual-track integration" framework, including fragmented ideological education, gaps between clinical practice and research, and insufficient interdisciplinary competencies. We propose an innovative model harmonising ideological guidance with multi-dimensional collaboration.

Methods
Over a decade, we developed the "Ideological Education as the Helm, Multi-Dimensional Collaboration" model, integrating ideological-political education into clinical training, establishing a dual-mentor system, designing interdisciplinary curricula, and fostering innovation through global partnerships.

Results
The model achieved enhanced ideological awareness (2,700+ volunteer hours, 24 ethics-driven awards), academic excellence (61 SCI papers, seven patents), and interdisciplinary impact (four technology transfers, 100+ international presentations). Teaching accolades include Shanghai's First Prize in Educational Innovation.

Conclusion
This model effectively cultivates well-rounded ophthalmologists with clinical, scientific, and ethical competencies, offering a replicable framework for postgraduate medical education.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE USE OF A NOVEL APP TO LEARN TRIAGE IN THE EMERGENCY ROOM FOR POST GRADUATE NURSES

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Background and Aims
Emergency Room Triage is a process performed by a nurse in our institution. Before 2021, a triage training module consist of two days of classroom didactics followed by one month of on-the-job training. This style of teaching is organised by the senior nurses and focused on training juniors to become "functional" on the shop floor in the shortest possible time. The team looked into the task of revamping triage education.

Methods
With the funding from Institute of Adult Learning, Singapore, the team collaborated with an external vendor to develop a mobile application – ITED (Improving Triage in Emergency Department). I-TED combines situational real-world learning, practice, assessment all into one platform. 20 different scenarios were developed initially.

Learners are presented with individual video-based scenarios and walks through the triage process with the character within this scenario (the patient) in a real-time manner. Learning is individualised, as the learner leads the conservation, asking leading questions and getting real-time responses. The learner can ask as many or as few questions but the scenario would end when he or she assigns the triage category to the in-app "patient" . This triggers a summative assessment based on pre-designed assessment matrix. Subsequently, learning cards which is symptom-specific and diagnosis-specific are pushed out to the learner, according to the gaps obtained from the assessment.

Results
We explored how graduated Gen Z nurses from local and foreign background learn triage through this initiative through direct feedback.

Learners are most grateful for a safe learning environment which is realistic yet relevant and at their convenience. Summative Assessments although daunting, are always followed up with explanations.

Preceptors welcome a different style of teaching and the automated way of assessing learners. Individual 's learning journey could be tracked back-end by looking into each lines in the conversation logs.

Conclusion
Emergency Room Triage is a difficult skill because of the time pressure, expansive and non-specific nature of patients' complaints. Learning through this initiative can now take place at learner's own time. The ability to combine practice, real-time assessment and further targeted lessons greatly improve pattern recognition and confidence to move into the real-world tasks.

Technology has matured to make learning relevant, targeted and personalised.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

SELECTING FUTURE DOCTORS: ALIGNING ADMISSIONS AND CURRICULA WITH SOCIALLY ACCOUNTABLE GRADUATE OUTCOMES IN MEDICAL SCHOOLS

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Background and Aims

Medical student selection is a pivotal point in shaping future doctors. However, predicting graduate success at entry is challenging, particularly given the four to six-year educational journey during which curricula play a major role in shaping competencies and values. As more medical schools adopt socially accountable missions, including prioritising health equity, community engagement, and workforce distribution, there is growing recognition that selection processes must align with these aims.

This session explores how medical schools can better align selection criteria with socially accountable graduate outcomes, using constructive alignment theory to examine the interplay between curriculum design and selection processes.

Methods

A qualitative inquiry was conducted across medical schools in the UK and internationally that have explicitly embedded social accountability into their curriculum frameworks. Data was gathered from publicly available institutional documents (e.g., selection criteria, graduate outcome statements, curriculum maps). Additionally, drawing on our own experiences in developing socially accountable curricula, we facilitated a structured discussion at a conference workshop to surface cross-institutional themes.

Using a constructivist grounded theory approach, we analysed how social accountability was interpreted, operationalised, and aligned (or not) between selection and curriculum. Biggs' Constructive Alignment model was used as a theoretical lens.

Results

Early analysis has identified several emerging themes:

1. Misalignment between selection criteria and graduate outcomes: While many institutions articulate socially accountable graduate goals, these are not always reflected in admissions processes or aligned with curricular outcomes.
2. Curriculum-selection interactions: In some contexts, curriculum development and graduate outcome frameworks are beginning to inform conversations around selection, though this influence appears inconsistent and often informal.
3. Balancing equity and mission-driven selection: Institutions report synergies-and tensions-between widening participation, fairness, and efforts to select candidates aligned with socially accountable missions.

These themes are guiding ongoing analysis and will inform the development of a model illustrating how medical schools could conceptualise and operationalise alignment between selection processes and curricula to ensure medical students meet socially accountable graduate outcomes.

Conclusion

Initial findings suggest that while many medical schools are committed to socially accountable graduate outcomes, a gap remains between these aims and current selection practices. Constructive alignment offers a useful lens through which to explore and strengthen the connection between who is selected and the curriculum they experience. This study aims to develop a conceptual framework to support both new and established institutions in designing coherent, mission-driven admissions strategies anchored in curriculum design. Further analysis will explore barriers and enablers to aligning selection with societal health needs. This framework could also be used beyond socially accountable graduate outcomes.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

PATHWAYS FOR ENHANCING SCIENCE COMMUNICATION SKILLS AMONG MEDICAL STUDENTS: PRACTICES FROM WEST CHINA SCHOOL OF MEDICINE

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Background and Aims
Under the deepening promotion of the “Healthy China” strategy, in order to promote the health education popularisation and cultivate medical students’ science-popularisation ability, West-China-School-of-Medicine of Sichuan University took the lead in incorporating science-popularisation ability into the core literacy framework of medical talents, and wrote it into the Five-Year Plans and annual priorities.

Methods
The school leverages several national platforms, including the State Key Laboratory of Biotherapy, the National Facility for Translational Medicine, and the National Mental Illness Medical Centre, as its science-popularisation educational bases. On these bases, the school has sustained innovation in the science education model, curriculum system, competition guidance, and strengthening of teams, so as to contribute the professional expertise and team strength from public hospitals to national health.

Results
In advancing the innovation of science-popularisation education, a multi-faceted approach was implemented across four key dimensions.

(1) Management & Policy, protocols such as the “Online Publicity Platform Management Measures” and “Science-Popularisation Creation Incentive Rules” were introduced. These integrate science-popularisation outcomes into performance evaluations for students and instructors to ensure sustainable implementation of science-popularisation education;

(2) Curriculum & Media Impact, a full-chain, iterative curriculum system was created. By leveraging public demand, expert knowledge, and student innovation, a cloud model was launched across nine platforms such as Weibo, Rednote and TikTok, amassing over 50 million followers. The “West-China Anti-rumour Team” program produced and promoted materials including the "West-China Hospital Anti-Rumour Team Medical Science Reader" and the "Health Calendar", which achieved a combined circulation of 500,000 copies and were shared by national media such as People's Daily and Healthy China, reaching an audience of over 12,000.This has generated over 1 billion online reads, and won the “Top Ten Influential Brands of China’s Health Science-Popularisation”;

(3) Practice & Community Engagement, the annual "West-China Health Science-Popularisation Competition" has been held for a decade, attracting global participation with over 5,000 entries and establishing itself as an influential international event. Under its guidance, more than 600 student teams were formed, organising over 3,000 offline activities—including charitable clinics, first-aid training, and open labs—that served more than 200,000 people;

(4) Team Building, these platforms facilitated the aggregation of an interdisciplinary team of over 500 experts, covering 48 medical sub-specialties, and jointly built with West-China-School of Public Health, Basic and Forensic Medicine, Life Sciences and Sichuan Disease Control and Prevention Centre to form a compound science-popularisation talent phalanx.

Conclusion
After a decade of innovative practice, the science-popularisation team from West-China-School-of-Medicine has received over 30 provincial and ministerial awards, including “Excellent Works Award of the New Era Health Science-Popularisation Competition”, the first prize of “Excellent Science-Popularisation Works in Sichuan Province”. The team’s experience was presented as an exemplary case at the National Health Commission press conference. Moving forward, West-China-School-of-Medicine will continue to integrate science-popularisation as a core objective in medical education, refine the “mechanism-curriculum-practice-competition-training” full-chain system to cultivate interdisciplinary talents skilled in both medicine and science-popularisation, thereby transforming the

warmth of medicine and the power of science into accessible, actionable health knowledge through the young students.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ASSESSING CHANGES IN COMMUNICATION COMPETENCE OF STUDENTS PARTICIPATING IN THE IPE 1 MODULE USING THE ICAR SCALE

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Background and Aims
Communication is a fundamental competence that improves collaboration and enhances the quality of patient care. Fostering this competence in health sciences students is essential, and interprofessional education (IPE) offers a structured approach to achieve this goal.

This study aimed to assess communication competence and associated factors among students participating in the Interprofessional Education 1 (IPE 1) module.

Methods
Multi-source feedback from 202 students across medicine, nursing, pharmacy, and allied health was collected pre- and post-module. The Interpersonal Communication Assessment Rubric (ICAR) scale, encompassing clarity, empathy, listening, adaptability, and communication with individuals with impairments, was used to evaluate competence.

Results
Students' communication competence significantly improved after completing the IPE 1 module ($p<0.05$), with mean scores across all domains exceeding 3.00-indicating a "Competent" level. The lowest average was observed in "Communication with individuals with impairments", while domains such as active listening and team communication approached the "Mastery" level (4.00). No statistically significant differences were found across academic disciplines, age, or gender ($p>0.05$).

Conclusion
The IPE 1 module enhanced students' communication competence regardless of demographic background. Continued efforts are needed to support students, particularly in developing communication with individuals with impairments, to further advance interprofessional collaboration.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 2.15pm

Hua Yue 1, Level 3

SHORT COMMUNICATIONS 15

Using Large Language Models to Meet Students' "Need to be Told" While Others Expect Them to Read
Jacqueline Elizabeth Wolvvaardt, South Africa

Integrating Humanities into Undergraduate Medical Curricula: A Review Exploring Focus Areas, Pedagogical Design, and Evaluation Strategies
Punithalingam Youhasan, Sri Lanka

Mind the Climate Gap: A Study Comparing Knowledge, Attitudes, and Perceptions of Climate Health Education Among Malaysian Medical Students from Public and Private Universities
Khai Hsin Wong, Malaysia

Trained but Trapped: Systemic Barriers Facing Female Medical Graduates in Healthcare Workforce
Mahwish Arooj, Pakistan

The Application of Modified Peyton's Four-Step Approach Combined with the PDCA Cycle in Clinical Skills Training
Zihua Ma, China

NHG Clinician-Educators' Perceptions and Attitudes Towards AI – A Mixed-Methods Analysis
Yng Min Loke, Singapore

Enhancing Competency-Based Assessment in General Practice Residency: A PDCA-Driven Approach to Improve Formative Evaluation Completion Rates
Lingna Mao, China

Enhancing Amniotomy Skills in Medical Students Using a Recycled Low-Cost Simulator
Ratikorn Saejong, Thailand

AI-Powered Gamification for Clinical Ethics Education: A Retrospective Comparative Study
Hui Jiang, China

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

USING LARGE LANGUAGE MODELS TO MEET STUDENTS' "NEED TO BE TOLD" WHILE OTHERS EXPECT THEM TO READ

[1]Wolvaardt JE, [2]Van Wyk M, [1]Patrick S, [3]Hlophe Y

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Background and Aims
One of the enduring challenges in large-scale online health professions education is the provision of high-quality, timely, and personalised feedback-especially for high-stakes assessments. Annually over 700 postgraduate students in a fully online programme at a South African university submit executive summaries of their research protocols. These two-page executive summaries contribute 40% of their final mark in the module. Despite the use of detailed rubrics, students frequently report dissatisfaction and inconsistencies with the perceived lack of feedback. Tutors on the other hand highlight time constraints and challenges to add meaningful qualitative comments that supplement what the rubric covers. Academic staff are similarly frustrated to have to repeat or rephrase what is in the rubric as responses to those who complain. This study investigates the use of Large Language Models (LLMs) to support equitable, scalable, and feedback-rich assessment that meets students' need to be told about their performance rather than them interpreting a rubric.

Methods
Drawing on the methodology of chain-of-thought (CoT) prompting, three LLMs (ChatGPT, Bard, and LLaMA-30b) were trained on a dataset of 546 previously graded summaries to evaluate their capacity for rubric-aligned scoring and explanatory feedback. Following model optimisation, the most consistent LLM will be deployed to assess two new student cohorts. A comparative, blinded review will then be conducted in which both students and tutors evaluate the alignment, quality, and usefulness of LLM-generated versus human-generated feedback.

Results
Findings from a smaller earlier study in the same university suggest that ChatGPT, when guided by well-crafted CoT prompts, performs with moderate to high agreement with human markers and offers structured, actionable feedback. The outcomes of the study (pending) will be presented and will form the basis of discussion about the utility and acceptability of using LLMs to assess text-based submissions at scale.

Conclusion
The current study is in the training and testing phase and the results of the in vivo tests will be available later in 2025 and will be presented at the conference.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

INTEGRATING HUMANITIES INTO UNDERGRADUATE MEDICAL CURRICULA: A REVIEW EXPLORING FOCUS AREAS, PEDAGOGICAL DESIGN, AND EVALUATION STRATEGIES

Youhasan P

Eastern University, Sri Lanka

Background and Aims
Humanistic medical education is crucial, yet its implementation faces challenges due to inconsistent curricular focus, pedagogical approaches, and assessment methods. This review aimed to identify key focus areas, effective pedagogical strategies, and robust evaluation methods for integrating the humanities into undergraduate medical education.

Methods
A review of MEDLINE publications from 2014 to 2024 was conducted, followed by a qualitative synthesis.

Results
The initial search in MEDLINE identified 16 potentially relevant articles. After comprehensively reviewing the initial catchment using several analytical phases, 10 articles were considered for the final review. In addition, another seven articles were included from citation tracking. Key focus areas identified in the review included medical ethics, cultural competency, literature and narrative medicine, compassion, bias in healthcare, and social and behavioural sciences. Humanities were typically integrated as electives, with student-centred teaching methods demonstrating effectiveness. Evaluation of humanistic outcomes remains complex and underdeveloped.

Conclusion
This review highlights the importance of incorporating the humanities into medical education while emphasising the need for standardised approaches to curriculum design, pedagogy, and assessment.

THE ASIA-PACIFIC SCHOLAR
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MIND THE CLIMATE GAP: A STUDY COMPARING KNOWLEDGE, ATTITUDES, AND PERCEPTIONS OF CLIMATE HEALTH EDUCATION AMONG MALAYSIAN MEDICAL STUDENTS FROM PUBLIC AND PRIVATE UNIVERSITIES

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Background and Aims
Climate change is an urgent complex global health challenge, demanding a transformational medical education response. However, despite abundant evidence of its profound impact on population health, its integration into medical curricula remains insufficient. This study aimed to assess medical students' knowledge, attitudes, and perceptions regarding the inclusion of climate change and health in medical curricula, recognising that medical students are key stakeholders in their professional development.

Methods
A self-administered online questionnaire was distributed to all medical students across Malaysia, in both public and private medical universities. The instrument included three sections: (1) a knowledge assessment based on the World Health Organization's Climate Change Fact Sheet; (2) attitudes; and (3) perceptions. Descriptive statistics were used, with independent t-tests for comparison of parametric data. Data are presented as (mean ± standard deviation). Pearson correlations assessed relationships between scores and chi-squared tests were applied for categorical comparisons (significance set at $p<0.05$). Six optional open-ended questions were also included. Responses for these were analysed thematically.

Results
A total of 475 valid responses were analysed, comprising 350 public and 125 private university students (180 males, 295 females). The mean knowledge score was (9.07±1.08), ranging from 4 to 10. Public university students scored significantly higher (9.17±1.02) than private university students (8.76±1.21) with $p<0.001$. Most students (89.9%) underestimated their knowledge, with no significant difference in knowledge gap between university types. Attitudes were generally positive, with public university students reporting significantly higher attitude scores than private university students with a mean difference of 1.11 ($p<0.001$). For perception, 65.3% of students had moderate levels, 22.3% high, and 12.4% low. Public university students scored significantly higher (2.79±0.99) than private university students (2.39±1.02), $p<0.001$.

Overall, 42.5% of students reported having received climate change education, with significantly more from public universities (49.4%) compared to private (23.2%). Chi-square analysis confirmed a significant association between university type and climate change education exposure ($\chi^2(1)=25.92$, $p<0.001$). Correlation analysis revealed no significant relationship between knowledge and attitude ($r=0.049$, $p=0.284$). However, a moderate, positive correlation existed between attitude and perception ($r=0.372$, $p<0.001$), and a weak but significant correlation was found between knowledge and perception ($r=0.095$, $p=0.038$).

Conclusion
This study highlights substantial gaps and variations in knowledge, attitudes, and perceptions of climate change and health among Malaysian medical students. While overall attitudes were positive, knowledge was frequently underestimated, and fewer than half had received formal education on the topic. Public university students demonstrated significantly higher knowledge, attitude, and perception scores and were more likely to have received climate change education compared to private university peers. These findings underscore the urgent need to integrate standardised and comprehensive climate change and health education across all medical institutions to ensure future healthcare professionals are adequately prepared for climate-related health challenges.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

TRAINED BUT TRAPPED: SYSTEMIC BARRIERS FACING FEMALE MEDICAL GRADUATES IN HEALTHCARE WORKFORCE

Arooj M

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Background and Aims
In recent years, Pakistan has experienced a demographic shift in medical education, with women making up approximately 70-85% of the student body in medical and dental colleges. This trend, often referred to as the feminisation of medicine, has not translated into a proportional increase in female participation in the medical workforce. Despite their growing presence in classrooms, women remain underrepresented in clinical practice, postgraduate training programmes, and leadership roles within the health sector. This phenomenon has been labelled a “leaking pipeline”, in which a significant number of female graduates exit the profession before reaching senior or specialised roles.

The primary aim of this study was to explore the gap between the high enrolment rates of female students in medical education and their low representation in the workforce. The study also sought to quantify how many female graduates are working in clinical or non-clinical roles post-graduation and to investigate the key barriers they face during training and professional development in Pakistan.

Methods
A descriptive, cross-sectional survey design was used to gather data from female medical and dental graduates across Pakistan. A structured questionnaire was created using Google Forms and distributed to alumni networks of both public and private medical colleges. The survey captured demographic information, employment status, reasons for career interruptions, and perceptions about postgraduate training. A total of 151 respondents completed the survey. Data was analysed to assess employment trends, career gaps, and common barriers to practice and specialisation after graduation.

Results
Of the 151 female graduates who responded, 60% reported being currently involved in either clinical or non-clinical roles. A significant majority-80%-were married, and 90% had children. Despite these achievements, many had experienced career gaps ranging from three to 20 years. The main reasons cited for not working or delaying postgraduate training included family responsibilities, inflexible training schedules, lack of childcare facilities, and workplace harassment. Among those not pursuing specialisation, the most common barriers were the demanding structure of postgraduate programmes, limited support during training, and personal safety concerns. Notably, many participants expressed a desire to return to practice or training if more supportive and flexible conditions were offered, including options for part-time training and institutional childcare.

Conclusion
This study highlights a critical disconnect between the high number of female medical graduates and their underrepresentation in the professional healthcare workforce in Pakistan. The issue lies not in motivation or ability, but in systemic barriers that disproportionately affect women. There is a pressing need for institutional reforms that offer flexibility in postgraduate training, family-friendly workplace policies, and safe, supportive environments. These measures are essential to retain female talent and ensure a more equitable and sustainable healthcare system.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

THE APPLICATION OF MODIFIED PEYTON'S FOUR-STEP APPROACH COMBINED WITH THE PDCA CYCLE IN CLINICAL SKILLS TRAINING

***Ma Z*, Fan R**

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Background and Aims
To explore the application of the modified Peyton's four-step approach combined with the PDCA cycle in clinical skills training.

Methods
A total of 53 medical students of grade 2021 rotated in the Department of Internal Medicine were selected as the research subjects. Among them, 26 students in the third round of rotation were selected as the experimental group adopting the modified Peyton's four-step approach combined with the PDCA cycle, whereas 27 students in the second round of rotation were selected as the control group using traditional simulation teaching method. The scores of the direct observation of procedural skills (DOPs) and the objective structured clinical examination (OSCE) after rotation were compared between the two groups, and the teaching effect evaluation of the experimental group students were collected through a questionnaire survey.

Results
The experimental group students achieved higher scores in both the direct observation of procedural skills and objective structured clinical examination than the control group. The experimental group students had a good evaluation of the joint teaching method.

Conclusion
The joint teaching method can not only effectively improve students' immediate skill mastery, but also promote students' long-term memory, self-directed learning and self-reflection.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

NHG CLINICIAN-EDUCATORS' PERCEPTIONS AND ATTITUDES TOWARDS AI – A MIXED-METHODS ANALYSIS

[1]Loke YM, [1]Shaik MA, [1]Teo WL, [2]Wong TY

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Background and Aims
Artificial intelligence (AI) is transforming medical practice and education at an unprecedented rate. Increasing numbers of AI tools have been introduced in clinical practice and training; however, little is known about educators' perceptions of this development. This study aims to understand medical educators' perceptions of AI tools in healthcare and health professions education (HPE) and the impact of AI tools on learners' behaviours.

Methods
Clinician-educators from various professional groups at the National Healthcare Group (NHG) institutions were invited to complete an anonymous online survey. The survey contains questions on AI perceptions in healthcare and health professions education, views on using AI in teaching activities, and readiness to integrate AI in education and clinical practice. Semi-structured interviews were conducted with 13 clinical education leaders (CELs) to further explore their perceptions and concerns about AI applications in health professions education. Interview transcripts were analysed according to the Braun and Clarke (2006) approach to thematic analysis.

Results
Ninety-two clinician-educators responded to the survey. Just over half of respondents (57.61%) reported having experience using an AI platform, most commonly ChatGPT. Most respondents agreed that AI will play an important role in healthcare (90.2%) and that AI will change healthcare practice dramatically (89.1%). Respondents generally agreed that clinician-educators should be equipped with basic knowledge of AI (89.1%) and be confident in using the AI tools (85.9%), with 92.4% of respondents interested in receiving AI training in patient care / clinical work or in teaching. While respondents were generally positive about AI development in healthcare, they had nuanced views on integrating AI tools into students' learning. Less than half of the respondents had positive views on the impact of AI tools on students/learners' teamwork (31.5%), intrinsic motivation (40.2%), critical thinking (42.4%), and problem-solving (42.4%). A preliminary analysis of interview transcripts from four CELs - two medical educators and two nursing educators - were carried out. CELs perceived that learners tend resort to quick fixes (n=2), especially among the younger generation. They also noticed absence of metacognitive processing in learners (n=3) when engaging with the AI tools. Furthermore, they feared that reliance on AI would lead to missing contextual nuances (n=2) when learners approach a clinical problem.

Conclusion
Clinician-educators were generally positive about integrating AI tools into clinical practice and teaching, showing keen interest in learning more about their applications in both domains. However, they raised concerns that the use of AI tools could potentially diminish learners' critical thinking and problem-solving abilities, leading them to rely on quick solutions at the expense of a broader understanding. Further work is needed to equip educators with strategies on designing AI curricula that mitigates these concerns.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ENHANCING COMPETENCY-BASED ASSESSMENT IN GENERAL PRACTICE RESIDENCY: A PDCA-DRIVEN APPROACH TO IMPROVE FORMATIVE EVALUATION COMPLETION RATES

Mao L

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Background and Aims
Despite the critical role of formative assessments (e.g., Mini-CEX, DOPS) in competency-based medical education, completion rates in general practice residency programs remain suboptimal (32.89%-58.75% in baseline data). This gap undermines the timely feedback necessary for resident development. Addressing this issue is essential to align with ACGME milestones and improve clinical training outcomes.

Methods
We implemented a two-cycle PDCA intervention (2023 - 2024) across seven core rotation departments (General Practice, Surgery, etc.). Key steps included:

- Root-cause analysis using fishbone diagrams (n=42 stakeholders)
- System redesign: Standardised evaluation protocols, rotation-specific competency matrices, and integrated e-platforms
- Rigorous monitoring: Monthly audits and quarterly feedback loops

Results
Completion rates increased significantly: 32.89%-58.75%→62.34%-80.23% (Cochran-Armitage $Z=4.12$, $P<0.001$)
Competency coverage: Surgical case exposure reached 100% ($\Delta=6.55\%$, $P=0.003$)
Downstream outcomes: Licensing exam pass rates rose from 71.43% to 100%; program satisfaction improved from 92.32% to 98.23%

Conclusion
The PDCA framework effectively transforms formative assessment systems by coupling structural reforms with continuous feedback. This study provides a replicable model for residency programs seeking to bridge competency-assessment gaps. Future work should explore AI-enhanced real-time feedback tools to further optimise the process.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ENHANCING AMNIOTOMY SKILLS IN MEDICAL STUDENTS USING A RECYCLED LOW-COST SIMULATOR

Saejong R

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Background and Aims
Simulation-based education enables safe and effective skill acquisition before clinical exposure. However, commercial simulators for amniotomy are often costly and inaccessible, especially in low-resource settings. This study developed and evaluated a low-cost amniotomy model using recycled materials, allowing repeated practice while promoting patient safety.

Methods
A cross-sectional study was conducted among fifth-year medical students at Vachira Phuket Hospital from 2016-2018. The simulator was constructed from plastic bottles and balloons to mimic the vaginal canal and amniotic sac. Students participated in a structured 60-minutes training session. Self-assessed confidence and procedural accuracy were measured using a 4-point scale before the session, immediately after the session, and again two weeks after performing the procedure on real patients. Time to complete the procedure was also recorded for the first and last three attempts. Ethics approval was granted on 16th December 2024.

Results
Among 64 complete responses, students showed significant improvement in confidence levels (mean 2.25±0.62 to 3.20±0.44; $p<0.001$) and procedural accuracy (mean 2.11±0.62 to 3.00±0.50; $p<0.001$). Time to perform the procedure decreased significantly from an average of 3.00 (0.19,20.00) minutes in initial attempts to 1.00 (0.08,10.00) minutes in later attempts ($p<0.001$). Within two weeks post-training, most students retained their confidence and ability to perform amniotomy on real patients under supervision.

Conclusion
The recycled simulator provided effective skill reinforcement, allowing learners to build confidence and reduce procedural time before encountering real patients. Its affordability and ease of construction make it adaptable for use in under-resourced medical education settings.

This novel, low-cost amniotomy simulator improves procedural skill confidence, accuracy, and efficiency through repetitive practice, enhancing learner preparedness and promoting patient safety.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

AI-POWERED GAMIFICATION FOR CLINICAL ETHICS EDUCATION: A RETROSPECTIVE COMPARATIVE STUDY

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Background and Aims
The rapid advancement of artificial intelligence (AI) is driving a new paradigm in medical education. Based on the practical implementations at the West China Medical Simulation Centre, this study aims to systematically elaborate on the innovative applications of AI technology across the entire spectrum of medical education. The objective is to enhance the precision, interactivity, and personalisation of medical training while exploring future pathways for intelligent education.

Methods
We developed a medical simulation teaching platform integrating multimodal AI technologies. The platform incorporates natural language processing to drive highly realistic virtual patient interactions and provide structured feedback on communication skills. Computer vision technology is employed to analyse performance in procedural skills, such as surgical operations, enabling objective biomechanical assessment. Adaptive learning algorithms are utilised to create personalised learning pathways that dynamically adjust training content based on student performance data across teaching, learning, assessment, and practice.

Results
The implementation demonstrates significant improvements in medical education quality through AI applications. The evaluation system has transitioned from subjective assessment to data-driven, objective evaluation, allowing for multidimensional quantitative analysis of both technical and non-technical skills. Students' engagement and learning outcomes have markedly improved through deep interaction with the intelligent simulation system. The personalised learning pathways have effectively accelerated the development of clinical competencies, making training more precise and efficient. Additionally, the system provides unprecedented insights for educational administrators.

Conclusion
The innovative application of AI technology in medical simulation education has successfully established a learner-centred intelligent educational environment. Our practice confirms the significant potential of AI in cultivating outstanding medical talents. Future efforts will focus on deepening the integration of AI and medical education, promoting the development of more personalised, precise, and intelligent medical education while ensuring data security and ethical compliance. The West China experience provides a valuable practical framework for global medical education institutions.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 2.15pm

Hua Yue 2, L3

SHORT COMMUNICATIONS 16

Learning Outcomes of Medical Students Who Graduated from Somdejphrajaotaksinmaharaj Hospital After Participating in Simulation-Based Learning in TSM. Sky Doctor Class
Sivanath Peeracheir, Thailand

Enhancing Independent and Critical Learning in Clinical Skills: A Feasibility Study on Virtual Patient Interactions for Medical Students
Weeming Lau, Malaysia

Ethical Risks and Educational Control in the Cultivation of China's Outstanding Medical Talents in the Digital-Intelligent Era: A Case Study of Ophthalmology at Tongji University
Yanlong Bi, China

Assessment of Health Behaviours and Associated Factors Among Fourth-Year Medical Students: A Cross-Sectional Study Using Comprehensive Lifestyle Assessment
Bussaya Santisan, Thailand

Integration of Online Large-Group Session to Small-Group Problem-Based Learning Tutorials: Towards More Consistent and Enriching Learning Experience in Medical Curriculum
So Ching Sarah Chan, Hong Kong S.A.R.

Using Lego® Serious Play® to Explore Professional Identity Formation Amongst Student Dietitians
Tammie Choi, Australia

10 Do's and Don'ts for the Natural Integration of "Curriculum-Based Ideological and Political Education" Into Medical Professional Courses
Yiling Huang, China

Pioneering New Pathways: Exploration and Practice in Cultivating Medical Students' Innovation and Entrepreneurship Capabilities
Chen Qiu, China

Helping At-Risk Individuals Workshop: A Course That Empowers Healthcare Professionals to Reach Out to Peers in Distress
Grace Lim Yi Shin, Singapore

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

LEARNING OUTCOMES OF MEDICAL STUDENTS WHO GRADUATED FROM SOMDEJPHRAJAOTAKSINMAHARAJ HOSPITAL AFTER PARTICIPATING IN SIMULATION-BASED LEARNING IN TSM. SKY DOCTOR CLASS

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Background and Aims
Somdejphrajaotaksinmaharaj Hospital initiated TSM. Sky Doctor class to enhance aeromedical evacuation protocols for critically ill patients through Simulation-Based Learning (SBL) targeted at clinical medical students. This initiative in 2018, 2021, and 2023, underscores the hospital's commitment to advancing emergency medical training. A total of 22 medical students participated in actual helicopter evacuations, collaborating with Emergency Physicians and interprofessional teams. This study aims to evaluate the educational outcomes of SBL within the class initiative and assess the practical engagement of graduates.

Methods
This research employed a qualitative methodology, guided by the CIPP (Context, Input, Process, Product) model. In-depth interviews were conducted with 14 medical students who actively participated in aeromedical evacuations and gained experience in regions utilising the Sky Doctor system. Additionally, a focus group interview was held with 10 teaching team members, employing content analysis and participant observation as key data collection methods.

Results
Feedback from graduating medical students uniformly indicated significant benefits from realistic simulated scenarios, particularly concerning aeromedical evacuation-a relatively novel concept in Thailand. Their practical experiences with helicopters enhanced their comprehension of operational systems and procedures. Graduates in areas served by the Sky Doctor system demonstrated effective coordination with evacuation teams and exhibited preparedness in managing patients at the point of origin. Recommendations included incorporating Fast Track disease stations and upgrading aircraft equipment. The teaching team advocated for an increase in curriculum hours focused on aeromedical evacuation and suggested conducting review simulations for students before graduation.

Conclusion
To enhance training regarding aeromedical evacuation, the Medical Education Centre must continue promoting educational initiatives through SBL. Such efforts will deepen medical students' understanding of patient needs and pertinent aeromedical equipment. Gaining experience in aeromedical evacuation is crucial for clinical medical students, particularly those working in remote areas, as it equips them to ensure appropriate patient care during emergencies. Ongoing educational activities should incorporate additional simulated scenarios focusing on critically ill patients, particularly addressing prevalent fast-track cases like STEMI, stroke, and TBI. This training is essential for preparing future healthcare providers to meet the unique challenges of emergency medical situations.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ENHANCING INDEPENDENT AND CRITICAL LEARNING IN CLINICAL SKILLS: A FEASIBILITY STUDY ON VIRTUAL PATIENT INTERACTIONS FOR MEDICAL STUDENTS

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Background and Aims

History taking and communication skills are core in a medical programme. Mastery of these skills needs regular practice with immediate constructive feedback. Students perform these tasks with their peers and simulated patients within a time-constrained environment in class. They are expected to continue these activities on their own time with their peers. Not every student is able to achieve this due to logistics. Therefore, it is important to provide students with other safe alternatives. The provision of a virtual patient (VP) is an option.

This project involves the Authentic Teaching and Learning Application Simulations (ATLAS) platform as a learning vehicle. It involves leveraging advanced cognitive architecture algorithms alongside Open AI's GPT-4 LLM to create realistic clinical scenarios. This integration allows for a seamless interpretation of students' verbal and non-verbal communication, ensuring a comprehensive and authentic learning experience. Students engage with a VP at their own pace and receive immediate written feedback from ATLAS at the completion of the task. They progressively scaffold their learning over time using a series of scenarios.

Aims:

1. Explore the feasibility of the ATLAS platform in effective delivery of clinical skills
2. Explore the impact of immediate feedback from ATLAS to improve competency in clinical skills
3. Explore the pros and cons of VP interactions on students' learning in clinical skills

Methods

The project received ethical approval from Monash University Human Research Ethics Committee (43049). Participants were recruited from the 2024 cohort of medical students in Monash University Malaysia. Participation was entirely voluntary, and informed consent was taken. The clinical skills team created eight different scenarios with progressive complexity. These were released to the students weekly. Students completed a case and received detailed feedback before proceeding to the next case. Each student was given a maximum of three attempts for each case. Each student completed a survey at the end of each case. At the completion of all eight cases, all students were invited to a focus group discussion.

Results

Twenty-two students from the five-year MD programme completed the eight cases. 21 participated in five focus groups. One student had an interview. Most students attempted the cases once. They found the cases effective for improving their history taking skills (84.8%); communication skills (84.5%); professionalism skills (91.3%); clinical reasoning skills (78.8%); and professional summary skills (67.4%). Focus group discussions indicated that students found the activity fun and beneficial in improving their clinical skills competencies, and each case was unique due to the different learning focus. Students found the immediate feedback from ATLAS useful and safe. However, there were areas for improvement, such as technical glitches with the hardware and software (such as hallucinating, over-information, language idiosyncrasies). These were refined iteratively by the research team where possible.

Conclusion

Use of the VP in the ATLAS platform was shown to be more effective in engaging students in history taking, communication, professionalism skills, when compared with clinical reasoning and summary skills. The future direction would be to use feedback from this feasibility study to refine the cases and ATLAS platform further.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ETHICAL RISKS AND EDUCATIONAL CONTROL IN THE CULTIVATION OF CHINA'S OUTSTANDING MEDICAL TALENTS IN THE DIGITAL-INTELLIGENT ERA: A CASE STUDY OF OPHTHALMOLOGY AT TONGJI UNIVERSITY

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Background and Aims
Digital-intelligent technologies, including big data, artificial intelligence, and telemedicine, are profoundly reshaping medical practice and educational models. These technologies present unprecedented opportunities for cultivating future-oriented "excellent medical talents" in China, while also giving rise to complex ethical risks. If these risks are not fully recognised and effectively managed, they will directly impact the core competencies and professional ethics of medical talents, and even jeopardise patient rights and medical equity. This study focuses on the cultivation system for outstanding ophthalmology talents at Tongji University. It aims to deeply analyse the key ethical risks emerging in digital-intelligent teaching and practice scenarios and explore practical educational control pathways, providing empirical references for constructing an excellent medical talent cultivation model with strong ethical literacy adapted to the digital-intelligent era.

Methods
A systematic review of digital-intelligent technologies applied in global ophthalmology (particularly in China) and the associated ethical risks. Taking the clinical teaching, research training, and practical applications (AI-assisted diagnosis, tele-ophthalmology, and patient data management) of ophthalmology at Tongji University as specific scenarios, identifying key ethical risk points and the technical solutions (federated learning and blockchain technology) employed. Collecting the perceptions, attitudes, and concerns of teachers, students (including standardised training students and postgraduates), clinicians, and patients regarding relevant ethical issues through questionnaires and interviews. Based on risk identification and needs analysis, ethically educational modules (case discussions, scenario simulations, and ethical review practices) were intentionally integrated into the ophthalmology teaching at Tongji University, and their preliminary effects were evaluated.

Results
This study systematically summarises the core digital-intelligent ethical risks faced in cultivating excellent medical talents and innovatively proposes and implements an educational control strategy of "scenario-embedded, capability-oriented, and multi-stakeholder collaboration." Practices have demonstrated that deeply integrating ethical education into the entire chain of professional teaching and practice is a critical pathway for cultivating "excellent medical talents" who possess both superb medical skills and noble medical ethics and can uphold ethical principles in the digital-intelligent era.

Conclusion
The digital-intelligent era imposes higher and more complex requirements on the ethical literacy of medical talents. The experience of ophthalmology at Tongji University provides a replicable "Tongji Model" for global medical education institutions to address digital-intelligent ethical challenges and optimise excellent talent cultivation systems, carrying significant theoretical value and broad promotional significance.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ASSESSMENT OF HEALTH BEHAVIOURS AND ASSOCIATED FACTORS AMONG FOURTH-YEAR MEDICAL STUDENTS: A CROSS-SECTIONAL STUDY USING COMPREHENSIVE LIFESTYLE ASSESSMENT

Santisan B

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Background and Aims
The health behaviours of medical students represent a critical issue that affects both their personal well-being and the quality of future patient care. Medical education is characterised by its intensity and high-pressure environment, which may lead to inappropriate health behaviours, particularly during clinical years when students face significant changes in both learning and working conditions.

Methods
This cross-sectional study aims to assess the health behaviours of 24 fourth-year medical students using a comprehensive health behaviour assessment tool covering six main domains: nutrition, physical activity, sleep, substance use, mental health, and social relationships.

Results
The mean health behaviour score was 29.22 ± 5.14 (Mean ± SD), ranging from 20 to 39 points. Scores distribution showed 60.87% (n=14) at standard level (21-30 points) and 34.78% (n=8) at very good level (31-40 points). Domain-specific analysis revealed excellence in social relationships and substance use (both 100%), followed by mental health (84%). However, concerning results emerged in physical activity (57%), sleep (45%), and nutrition (40%).

Conclusion
Our findings demonstrate a notable dichotomy in health behaviours among medical students. While they excel in social relationships and substance avoidance, significant challenges persist in maintaining adequate nutrition and sleep patterns. These results align with international studies highlighting the impact of medical education's demanding nature on students' lifestyle choices. The contrasting performance across domains suggests that while students successfully manage certain health aspects, the rigorous nature of medical training may compromise essential health behaviours.

This study provides critical insights into fourth-year medical students' health behaviour patterns during their clinical transition. The findings emphasize the importance of developing targeted interventions that address specific health domains while acknowledging medical education's unique challenges. Future research should examine the longitudinal impacts of these patterns and evaluate intervention effectiveness.

These findings underscore the need for targeted interventions focusing on nutrition and sleep while maintaining positive trends in social relationships and substance avoidance. We recommend integrating structured health promotion programmes into the medical curriculum, developing supportive environments, and implementing regular monitoring systems.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

INTEGRATION OF ONLINE LARGE-GROUP SESSION TO SMALL-GROUP PROBLEM-BASED LEARNING TUTORIALS: TOWARDS MORE CONSISTENT AND ENRICHING LEARNING EXPERIENCE IN MEDICAL CURRICULUM

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Background and Aims
In Year one and two of the medical curriculum at The University of Hong Kong, there are face-to-face small-group problem-based learning (PBL) tutorials in various system blocks. These tutorials are facilitated by both clinicians and non-clinicians with expertise in fundamental or health sciences. Although PBL cases used for the cohort are the same, the learning experience may differ among groups. Strategies are explored to create a more consistent and enriching learning experience.

Methods
The e-PBL project advances traditional PBL pedagogy through integrating online learning tools, uniform group tasks, multiple-choice questions (MCQs) and interactive case debriefing by content tutors and/or case writers.

A one-hour online large-group session for the whole cohort, conducted by two content tutors through Zoom, is added to selected PBL case as the final part of the last tutorial. Online group tasks and multiple-choice questions (MCQs), that are uniform across the cohort, are to be completed by students on Moodle before the large-group Zoom session. MCQs are for students' self-evaluation. Students join the large-group Zoom session as a PBL group together with their PBL tutor in their respective tutorial rooms.

If general, case writers are invited to be content tutors. During large-group Zoom session, two content tutors (one focusing on clinical aspects, the other on sciences) give general comments on the submitted group tasks, clarify misconceptions and highlight key points. MCQs are gone through, questions collected in Moodle and live Zoom are also answered by the content tutors and/or case writers. Large-group Zoom session is being recorded, and the recording is also shared with PBL tutors and students on Moodle.

Before e-PBL tutorials, student and PBL tutor briefings on logistics are essential. There is also close support from the administrative and technical team throughout the preparation and implementation of e-PBL.

Results
The large-group Zoom session facilitates knowledge consolidation, enabling students to develop a deeper understanding of the case. The large-group Zoom session provides opportunities for direct interaction with content tutors and/or case writers, allowing students to ask questions, clarify misconceptions, and receive immediate feedback. The recorded session supports continuous review and reinforcement of learning.

The large-group Zoom session and its associated activities provide a channel for content tutors and/or case writers to understand the learning needs of students. PBL tutors may also enhance their understanding of the case through large-group Zoom session.

Conclusion
The online uniform group tasks and MCQs embedded in e-PBL with integration of online large-group Zoom session is a strategy towards a more consistent and enriching learning experience. Effective logistics, along with dedicated administrative and technical support, are essential for successful implementation. Overall, this integrated approach offers a promising strategy to enhance the quality and equity of PBL in medical curricula.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

USING LEGO® SERIOUS PLAY® TO EXPLORE PROFESSIONAL IDENTITY FORMATION AMONGST STUDENT DIETITIANS

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Background and Aims
LEGO® Serious Play® aligns with creative pedagogies and offers a powerful hands-on approach to helping students explore and articulate complex and abstract concepts like professional identity formation. Underpinning by the concept of "hand knowledge" or "letting your hands to do the 'talking'", students use LEGO bricks to represent their values, attitudes and aspirations as emerging health professionals. This tactile and reflective process fosters deeper self-awareness, encourages expression of complex ideas, and promotes dialogue in a safe and inclusive environment. As students share their LEGO models with peers, they gain insights into the diverse pathways and shared challenges of becoming a health professional, fostering empathy and professional connection. A two-hours workshop using LEGO® Serious Play® was facilitated with 65 student dietitians in an Australian university, in their final semester of the programme, to explore their professional identity formation. Students drew from their placement experience in hospitals and community, adopted reflexivity and critical thinking, and reflected on their profession education journey. The workshop was qualitatively evaluated with students.

Methods
An evaluative online survey was circulated to student-attendees at the end of the workshop and a total of 51 surveys (78.5%) were completed. Responses were analysed thematically.

Results
LEGO model-building was enjoyable and the workshop supported student dietitians in exploring their professional identity formation through creative reflection and peer connection. Key themes emerged from evaluation survey, highlighting the value of visualisation in understanding their future careers. Building with LEGO bricks enabled students to tangibly represent uncertainty, resilience, and adaptability, with several reflecting on the ability to "rebuild" as symbolic of career flexibility. Visualisation fostered a sense of confidence and clarity, helping students recognise their growth and direction. Shared experiences of uncertainty were particularly powerful, reassuring students that ambiguity about the future is common and normal. The workshop also reinforced the importance of lifelong learning and maintaining a growth mindset, as students reflected on the values they wished to carry forward in practice. Many identified core professional values, such as compassion, patient-centred care, and self-reflection, as central to their evolving identity. Overall, the workshop provided a meaningful and reassuring space for consolidating personal and professional insights.

Conclusion
LEGO® Serious Play® supports identity formation by making abstract concepts, such as professional values, ethics, and roles, visible and tangible. It also encourages critical thinking about how personal backgrounds, education, and the healthcare environment shape identity. By engaging both imagination and reflection, LEGO® Serious Play® equips student dietitians with a more integrated and confident understanding of their evolving professional selves.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

10 DO'S AND DON'TS FOR THE NATURAL INTEGRATION OF "CURRICULUM-BASED IDEOLOGICAL AND POLITICAL EDUCATION"INTO MEDICAL PROFESSIONAL COURSES

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Background and Aims
"Curriculum-based Ideological and Political Education" refers to the natural integration of ideological elements into specialised courses. It combines knowledge impartation with value guidance to achieve the educational goal of fostering virtue and cultivating talent. However, the current implementation of curriculum-based ideological and political education often becomes merely perfunctory. It is therefore particularly necessary to explore how to appropriately conduct such educational integration. Our teaching team has developed a pedagogical model that integrates moral education with knowledge instruction. This paper summarises and share the practical experiences in implementing "Curriculum-based Ideological and Political Education".

Methods
This article presents 12 Do's and Don'ts for the Organic Integration of "Curriculum-based Ideological and Political Education" into medical professional courses, thereby creating a cohesive educational system where specialised knowledge acquisition and value development progress in tandem to produce synergistic educational outcomes.

Results
Based on our implementation, we have distilled 10 Do's and Don'ts as follows:

1. Do: Integrate values naturally through situated learning, Don't: Adopt superficial tokenism in curriculum design;
2. Do: Maintain proportionate focus on value-oriented content, Don't: Allow ideological components dominating Professional Courses;
3. Do: Maintain harmonious integration across all elements, Don't: Produce duplicative or unnecessary content;
4. Do: Align with current standards and fresh ideas, Don't: Depend on old - fashioned methods;
5. Do: Align with learner's context, Don't: Utilise rigid standardisation;
6. Do: Employ diverse methodologies, Don't: Use dogmatic lecturing;
7. Do: Demonstrate through applied implementation, Don't: Depend solely on abstract discourse;
8. Do: Commit to incremental refinement, Don't: Expect instant transformation;
9. Do: Integrate domestic priorities with global healthcare frameworks, Don't: Disregard globally recognised medical ethical principles;
10. Do: Establish an integrated evaluation system with both subjective and objective criteria, Don't: Implement interventions without outcome assessments.

By organically integrating "Curriculum-based Ideological and Political Education" with professional courses, students' intrinsic learning motivation has been significantly strengthened, test scores have greatly improved, overall quality has been tempered, and their sense of learning efficacy has gradually increased.

Conclusion
The "Healthy China 2030" Blueprint elevates the safeguarding of people's health to the level of national strategy, which sets new requirements for medical education and the cultivation of healthcare professionals. Through well-designed "Curriculum-based Ideological and Political Education", medical educators can guide students' character development and value formation effectively, thereby cultivating a new generation of medical innovators who demonstrate clinical compassion, professional ethics, aspirational vision, and social responsibility.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

PIONEERING NEW PATHWAYS: EXPLORATION AND PRACTICE IN CULTIVATING MEDICAL STUDENTS' INNOVATION AND ENTREPRENEURSHIP CAPABILITIES

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Background and Aims
A nation's prosperity relies on its talent, and a healthy China begins with strong medical education. The Healthy China 2030 blueprint explicitly advocates for strengthening medical talent cultivation, promoting the translation of scientific achievements, and advancing public health services. It emphasizes innovation in healthcare delivery models and the transformation of medical technologies and industries, to build a solid talent base to achieve the goal of "health for all." Looking toward the future, medical students must not only possess solid clinical competence but also uphold the spirit of "putting people first and serving at the grassroots level." They are called to develop a pioneering and innovative spirit that dares to pioneer and excel in innovation.

Methods
Relying on national-level platforms such as the National Key Scientific Infrastructure for Translational Medicine, the National Medical Centre, and the National Clinical Teaching and Training Demonstration Centre, West China School of Medicine, Sichuan University, has explored for years and built a distinctive education system for cultivating medical students' innovation and entrepreneurship capabilities. Innovation and entrepreneurship achievements have been integrated into students' comprehensive quality assessments, competency evaluations, and postgraduate admission criteria. Dedicated funds have been established to support student projects, and a series of structured courses has been implemented to foster systematic innovative thinking and practical skills. Concurrently, faculty mentorship in such training is recognised as part of the teaching workload and incorporated into award and evaluation systems. The introduction of the "West China School of Medicine Teaching Outcomes Incentive Regulations" further aims to boost engagement and motivation among both faculty and students.

Results
In recent years, our students have achieved outstanding results in national and provincial innovation competitions, winning 21 national gold medals in the China International College Students' Innovation Contest and nearly 200 awards at or above the provincial level—ranking among the top of medical schools nationwide.

Conclusion
After a decade of exploration and practice, our school has gradually established a replicable "West China Model" for cultivating medical students' innovation and entrepreneurship capabilities, contributing valuable experience to the reform of medical education in the new era.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

HELPING AT-RISK INDIVIDUALS WORKSHOP: A COURSE THAT EMPOWERS HEALTHCARE PROFESSIONALS TO REACH OUT TO PEERS IN DISTRESS

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Background and Aims
Healthcare professionals in Singapore face significant burnout challenges, with 43.9% of respondents reporting high emotional exhaustion or depersonalisation, impacting patient care quality, staff retention, and workforce sustainability (Ann Accad Med Singapore 2022;51:409-16). Existing public peer support initiatives have poor uptake due to lengthy durations, clinical scheduling conflicts, and lack of healthcare-specific context. The Helping At-Risk Individuals (HARI) workshop addresses these through healthcare-specific scenarios focusing on challenges like managing adverse patient outcomes, navigating team dynamics, and balancing clinical responsibilities.

The HARI workshop leverages healthcare professionals' foundational mental health knowledge, offering a targeted blended approach to peer support. Initially conducted virtually with facilitator-led discussions and role-play demonstrations, the workshop used the revised 3Ls model (Look, Listen, Link), a modified psychological first aid strategy designed to help participants identify stress reactions and facilitate peer support referrals. Information on suicide intervention was addressed when prompted by participants. Recognising virtual learning's limitations, the programme evolved to an in-person format, emphasising scenario-based experiential learning. The curriculum was revamped to include the CPR framework (Concrete Plan, Previous Attempts, Resources) that teaches one to initiate and navigate conversations about suicide ideation and provide early intervention within time-constrained environments.

Methods
This mixed-methods study evaluated workshop effectiveness by comparing the virtual delivery (August 2020 - November 2022, n=82) and in-person formats (November 2023 - February 2025, n=61). Co-developed by SingHealth Residency's Centre for Resident and Faculty Development (CRAFD) and a medical social worker, the workshop included a 30-minute pre-workshop e-learning module, and the curriculum featured the revised 3Ls model for crisis support and CPR framework for suicide risk assessment through healthcare-specific case scenarios. Participants were given access to in-house resources in the SingHealth Staff Information Portal (Infopedia), and the Wellness Roadmap, which was a one-stop information hub for counselling, peer support, and emergency mental health services. Workshop evaluation was conducted through a 5-point Likert scale and qualitative feedback.

Results
Welch's t-tests showed significant differences in the scores ($p < 0.05$) between in-person and virtual workshops across the survey items of course content appropriateness (4.67 vs 4.41), adequacy of content covered (4.59 vs 4.28), new knowledge gained (4.67 vs 4.35), confidence in applying intervention skills directly to work (4.67 vs 4.39), and perception that the knowledge gained will have a direct impact on others (4.62 vs 4.36). Qualitative feedback highlighted the effectiveness of experiential learning through role-play scenarios in a psychologically safe learning environment, which elicited conversations about self-harm and burnout. The integration of case-based discussions was beneficial, fostering engagement and contextual learning relevant to clinical practice. Notwithstanding virtual sessions' flexibility, in-person delivery was more effective for communication skills development especially in managing complex conversations about self-harm and burnout. Participants valued the facilitators' practical approach and the use of the blended learning model.

Conclusion
Healthcare-contextualised in-person workshops significantly increased participants' confidence to utilise skills in supporting peers experiencing burnout or self-harm ideation. Despite virtual platforms' flexibility, limited role-play opportunities impacted skills development and confidence to practise after the sessions. This highlights the importance of in-person training to achieve effective peer support intervention outcomes.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

Saturday 24 January 2026, 2.15pm

Paris Hall and Rome Hall, Level 5

SHORT COMMUNICATIONS 17

Enhancing Empathy and Learning Motivation in First-Year Medical Students: A Medical Philosophy Course Using a Modified Flipped Classroom Approach
Feng Yun, China

Interim Outcomes of a New Master's Program for Healthcare Professionals in Resource-Limited Settings
Suyoun Kim, South Korea

Using Reflection-Based Evaluation for Enhancing Counselling Skills Through Role-Play in Medical Students
Thawanrat Chayaanantapat, Thailand

Digital Intelligence-Enhanced Curriculum Development for Digestive System Education Under the One Health Concept: Innovative Approaches Through Meta-Medicine and Intelligent Learning Systems
Hong Chen, China

What do the Fourth Year Medical Students Learned from Early Expose to Rural Hospital?
Siriluk Pongchitsiri, Thailand

Building Nurses Capability in Jaffna (Brain): An Interprofessional Collaborative Approach
Suan Gek Ng, Singapore

Educating for Change: A National Survey of Planetary Health Awareness and Learning Needs in Chinese Healthcare
Xiandi Wang, China

SAF Mentorship Program: Shaping Future Leaders in the SAF Medical Corps
Mohamad Khalid Mazlan, Singapore

Exploring Learning Styles, Readiness, Barriers, and Perceptions Toward Online Learning Among Nursing Students in Malaysian Public Universities
Li Yoong Tang, Malaysia

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

ENHANCING EMPATHY AND LEARNING MOTIVATION IN FIRST-YEAR MEDICAL STUDENTS: A MEDICAL PHILOSOPHY COURSE USING A MODIFIED FLIPPED CLASSROOM APPROACH

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Background and Aims
Contemporary medical education faces dual challenges: declining clinician empathy during clinical training and waning student motivation amid rigorous curricula. Empathy, foundational for patient-centred care and clinician well-being, correlates with improved diagnostic accuracy and therapeutic adherence. Concurrently, intrinsic learning motivation predicts longitudinal academic resilience and achievement. Medical humanities–particularly medical philosophy–offer potential interventions by cultivating critical thinking and ethical reasoning. However, traditional lecture-based courses, often delayed until senior years, fail to capitalise on early developmental windows. This study implemented a modified flipped classroom approach to deliver medical philosophy to first-year medical students, aiming to assess its effectiveness in enhancing (1) empathy, (2) learning motivation, and (3) overall well-being.

Methods
A prospective pre-post study was conducted at International School of Medicine, Zhejiang University during the 2024-2025 academic year. Thirty-four first-year international medical students (median age=19; 12 male, 22 female) completed an eight-weeks (32 class hours) medical philosophy course. The modified flipped classroom approach comprised weekly two-hours teacher-led lectures on philosophical frameworks and two-hours facilitated discussions using clinical vignettes. Validated scales were administered pre- and post-course: Jefferson Scale of Empathy (JSE; Cronbach's α=0.773) for empathy, Strength of Motivation for Medical School (SMMS; Cronbach's α=0.799) for learning motivation, and World Health Organisation-Five Well-Being Index (WHO-5; Cronbach's α=0.912) for well-being. Post-course evaluations assessed satisfaction (5-point Likert scale) and self-perceived competency gains in philosophical reasoning. Statistical analysis employed paired t-tests with Cohen's d effect sizes.

Results
Participants showed significant increases in both empathy and learning motivation. JSE scores increased from 94.47±11.16 to 98.35±13.32 ($P<0.01$, Cohen's d=0.509, 95% CI: 0.863 to 0.147), driven primarily by a significant rise in the "Perspective Taking" subscale (53.00±7.03 to 56.44±6.93; $P<0.01$). SMMS scores increased from 54.06±7.17 to 56.00±7.57 ($P<0.05$, Cohen's d=0.457, 95% CI: 0.807 to 0.100), with significant gains observed in the "Readiness to Start" (17.79±3.25 to 18.47±3.54, $P<0.05$) and "Persistence" subscales (18.26±3.20 to 19.00±2.84, $P<0.05$). However, no significant changes occurred in other subscales of either instrument. Well-being (WHO-5) scores showed no significant change ($P=0.267$). Post-course feedback indicated 82.4% expressed high satisfaction (≥4/5), with 79.4% reporting improved ability to apply philosophical frameworks to clinical contexts.

Conclusion
Implementing medical philosophy via a modified flipped classroom model in the first year effectively enhanced empathy and learning motivation among medical students, achieving high learner satisfaction and perceived competency development. This approach represents a promising strategy for early integration of humanities in medical curricula. Future research should explore longitudinal effects on clinical performance and specialty choice.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

INTERIM OUTCOMES OF A NEW MASTER'S PROGRAM FOR HEALTHCARE PROFESSIONALS IN RESOURCE-LIMITED SETTINGS

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Background and Aims
Universal Health Coverage (UHC) aims to ensure that all individuals receive quality health services without financial hardship. Despite its inclusion as Sustainable Development Goal (SDG) 3.8, global progress toward UHC has stalled. A key barrier is the shortage of well-trained, equitably distributed health professionals. While short-term strategies in resource-limited countries often focus on clinical upskilling, sustainable progress requires long-term investment in health professions education (HPE) to develop educators who can train the next generation of health workers. To address this gap, the authors established a two-year Master of Health Professions Education (MHPE) program in Korea, inviting six health professionals from five countries to become future leaders in medical education. This presentation shares interim outcomes from the first semester of the MHPE program, highlighting how a needs assessment informed curriculum development and reporting learners' satisfaction with course content, instructional methods, and overall alignment with their academic needs.

Methods
Using Kern's six-step approach, a targeted needs assessment (TNA) was conducted in July 2024 following a general needs assessment. Participants included six learners: one each from Uzbekistan, Lao PDR, Mongolia, and Vietnam, and two from Tanzania. Learners completed a self-assessment of their pre-program confidence in key HPE competencies and identified desired areas for growth. A satisfaction survey was administered at the end of the first semester, using a 5-point Likert scale.

Results
The TNA revealed low self-confidence in core competencies, including knowledge on curriculum development (M=2.80, SD=0.75), curriculum design (M=2.60, SD=1.02), learner assessment (M=2.60, SD=0.49), and program evaluation (M = 2.60, SD=0.49). Confidence in Health Professions Education Research (HPER) was also low (M=2.00, SD=0.63), though learners expressed strong motivation to strengthen their HPER competencies (M=4.60, SD=0.49). The program was designed to cultivate three core professional role: educator, researcher, and leader to enhance HPE in their respective countries. Six learning outcomes were defined: (1) applying educational theory and concepts to health care education practice, (2) selecting appropriate assessment methods, (3) developing context-sensitive curricula, (4) critically appraising literature, (5) adhering to research ethics, and (6) knowledge of program evaluation and monitoring. A four-semester, 24-credit MHPE curriculum was developed. In the first semester, students completed the course including Introduction to HPE, Communication and teamwork in HPE, and HPER seminars. To foster self-directed learning, learners used an e-portfolio to track monthly progress, set goals, and receive formative feedback from mentors. A post-semester survey indicated high levels of satisfaction with course content and materials (M=4.83, SD=0.37), teaching and learning methods (M=4.50, SD=0.76), and alignment with learners' academic needs (M=4.83, SD=0.37).

Conclusion
The interim findings suggest that the MHPE program effectively addressed learners' needs through a structured, theory-informed curriculum. High satisfaction ratings indicate strong alignment with academic expectations. We will continue further studies to evaluate whether graduates become competent educators, researchers, and leaders capable of advancing Universal Health Coverage in resource-limited settings by applying the theoretical knowledge and practical skills gained through the program.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

USING REFLECTION-BASED EVALUATION FOR ENHANCING COUNSELLING SKILLS THROUGH ROLE-PLAY IN MEDICAL STUDENTS

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Background and Aims
Psychiatric counselling is a crucial component of medical education, as medical students need to develop the ability to care for patients with complex psychiatric conditions. Role-play is a well-established method for training such skills, while reflection enhances self-awareness and critical thinking. This study evaluates the effectiveness of a counselling programme that integrates role-play and reflective practices.

Methods
This educational intervention involved 25 fifth-year medical students in structured role-play sessions simulating complex psychiatric cases, including adjustment disorder, major depressive disorder, and anxiety disorder. The study utilised a mixed-methods approach for data collection: Quantitative Assessment: The General Self-Efficacy Scale was administered before and after the training to measure changes in students' counselling confidence. Qualitative Assessment: Students completed written reflections documenting their learning experiences, insights, and practical applications of the skills learned. Students practiced counselling in a controlled environment with immediate feedback from peers and faculty, fostering hands-on experience in a supportive setting.

Results
The intervention significantly improved counselling competencies. Self-efficacy scores increased from a pre-course average of 21.0 (range: 18-30) to a post-training average of 33.8 (range: 33-35). Narrative reflections highlighted enhanced self-awareness, confidence, empathetic responses, and communication skills. Students reported feeling better prepared for real-world patient encounters and more aware of their professional growth. Faculty and peer feedback confirmed the value of role-play and reflection in reinforcing learning outcomes.

Conclusion
The role-play-based learning intervention proved effective in enhancing medical students' counselling competencies for psychiatric cases. The significant improvement in self-efficacy scores, coupled with positive qualitative feedback, demonstrates the programme's success in building students' confidence and practical skills. Students developed stronger capabilities in managing complex psychiatric cases and showed increased self-awareness in patient interactions. The combination of structured role-play scenarios and reflective practice emerged as an effective educational approach for developing essential clinical communication skills in medical education. This approach supports the use of experiential learning methods in medical education to prepare students for psychiatric patient care.

Structured role-play combined with reflective practice is a powerful educational tool for psychiatric counselling training. This approach not only builds confidence but also develops essential clinical communication skills, preparing future physicians for empathetic and effective psychiatric care.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

DIGITAL INTELLIGENCE-ENHANCED CURRICULUM DEVELOPMENT FOR DIGESTIVE SYSTEM EDUCATION UNDER THE ONE HEALTH CONCEPT: INNOVATIVE APPROACHES THROUGH META-MEDICINE AND INTELLIGENT LEARNING SYSTEMS

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Background and Aims
To tackle medical education challenges–such as clinical resource shortages, poor interdisciplinary integration, and privacy/ethics concerns–this One Health-based study pilots the digestive system course to integrate digital and intelligent technologies into an innovative teaching model. This model overcomes traditional limitations like weak environmental health links and underused clinical resources, advancing new medical professionals' cultivation.

Methods
1. Construct a privacy-secure "meta-clinic" ecosystem
    a. Leverage VR/AR integrated with digital twin technology to simulate highly realistic diagnostic and treatment scenarios specific to gastroenterology, such as endoscopy rooms and emergency assessment units;
    b. Develop a dual-channel clinical data anonymisation framework: automatically remove personal identifiers from real-world cases while preserving pathological characteristics, thereby constructing a virtual case repository that aligns with epidemiological patterns and maintains the authenticity of educational resources;
    c. Implement a tiered access control system to ensure rigorous protection of patient privacy.
2. Integrate environmental health comprehensively into curriculum development. Establish a case-based learning library focused on human-environment interactions, such as the association between regional dietary contamination and gastric cancer, or the disruption of gut microbiota due to microplastic exposure. Strengthen the cultivation of One Health competencies through instructional modules such as virtual environmental pathogen tracing and ecological health risk assessment.
3. AI-Driven Teaching Closed Loop
    a. Intelligent Knowledge Graph Engine: By integrating interdisciplinary knowledge, including anatomy, pathology, and environmental toxicology, this engine dynamically generates personalised learning pathways.

    b. AI Virtual Mentor System: This system delivers real-time feedback on procedural skills and clinical decision-making while conducting precise competency assessments.

    c. Teaching Optimisation Module: This module automatically adapts teaching strategies based on learning behaviour big data analytics.

Results
The application was verified in two complete teaching cycles, covering 200 clinical medicine students. The results showed significant improvement in abilities: the pass rate of clinical skills assessment was 100% (the comprehensive test level of this batch of students before learning was at the lower-middle level of the entire grade), and the qualification rate of environmental health-related case analysis ability reached 91.7%. The students' evaluation of the course satisfaction was 95.2%, among which "immersion in the real outpatient practice" and "AI personalised feedback" received the highest scores (4.8/5.0). There was a breakthrough in resource transformation, successfully converting 300 desensitised real cases and generating 50 synthetic cases, achieving the "zero ethical risk" teaching of clinical resources.

Conclusion
This study successfully established a novel paradigm for digitalised courses in the digestive system through a three-in-one model integrating "meta-medical virtual field, privacy security transformation, and environmental health integration". Practical implementation has demonstrated that this model significantly improves students' clinical competence and overall health literacy. It effectively addresses

the contradiction between the utilisation of clinical resources in teaching and the need for privacy protection, thereby offering a viable solution for the digital transformation of medical education. Looking ahead, further development will focus on enhancing intelligent early warning and predictive capabilities, with plans to extend these advancements to the construction of interdisciplinary courses.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

WHAT DO THE FOURTH YEAR MEDICAL STUDENTS LEARNED FROM EARLY EXPOSE TO RURAL HOSPITAL?

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Background and Aims
In the past, graduated medical students have decided to resign from their job after finishing one to three years because of fear of working in rural hospitals. Buddhasothorn Medical Education Centre (BMEC) entailed medical students to partake in a restricted elective for two weeks at a rural hospital at the end of fourth year medical rotation to gain early exposure to rural hospital. The main learning objective for this restricted elective was to understand the rural physician's way of life and role, work with a multidisciplinary team, enhancing communication and teamwork.

Methods
30 students of 2024 academic year were divided into seven groups (four to five students per group) and exposed to seven rural hospitals in Chachoengsao, Prachin Bury and Sa Kaeo provinces. The job description was a health promotion project and the other included job duties dependent on the hospital schedule such as clinical practice, to study-visit several departments. Finally, group presentations about activities included what they learned later on in the early fifth year period.

Results
Most clinical activities were OPD, NCD clinic, ER, and home visits. Five health promotion projected groups were inquired information by hospital personnel and chosen together, but two groups were individual formed by themselves. Six health promotion project groups were poster presentation at NCD clinic setting, such as food, exercise and disease (DM, HT) and the others were face-to-face CKD education for people. For example, disease, drugs and food that aggravate. Only one group performed pre- and post-evaluation. Scope of rural physician's work, limitation of rural hospital, working with multidisciplinary team, communication skill, teamwork, living in countryside, understanding the community, positive attitude towards working in rural area and adaptation were what they received from the exposure to rural hospitals.

Conclusion
Most of them achieved the objectives of a rural physician's way of life, working with multidisciplinary, communication and teamwork. Understanding the community and positive attitude to working in rural area were beyond expectation.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

BUILDING NURSES CAPABILITY IN JAFFNA (BRAIN): AN INTERPROFESSIONAL COLLABORATIVE APPROACH

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Background and Aims
National Neuroscience Institute (NNI), Jaffna Teaching Hospital, and University of Jaffna set up a neuroscience training programme, known as Project BRAIN: Building nuRses cApability In JaffNa in 2023, to address significant gaps in neuroscience nursing care in Sri Lanka. Project BRAIN is designed as an interprofessional neuroscience training programme, aimed at building capabilities among nurses and therapists (physiotherapists and occupational therapists) for the care of patients with neurological conditions.

Methods
Project BRAIN's programme was developed based on a comprehensive needs analysis and with the Process for Interprofessional Education System (PIPES) framework to foster collaboration. The 12-months hybrid training programme consists of monthly virtual training sessions complemented by two face-to-face trainings for Sri Lankan nurses and therapists in Jaffna Teaching Hospital. The monthly virtual training programme was delivered by a multidisciplinary team of healthcare professionals from SingHealth, including dietitians, radiographers, physiotherapists, and specialty nurses. Following the training programme, one lecturer from the University of Jaffna and two nurses from Jaffna Teaching Hospital participated in a five-day clinical observer-ship of Singapore hospitals, rehabilitation units, and National University of Singapore. To build programme sustainability, a team of six trainers from Jaffna, comprising nurses and faculty member from school of Allied Health from University of Jaffna, went through train-the-trainer sessions.

Results
Project BRAIN virtual training was conducted from January to December 2024. Pedagogy used included didactic sessions, problem-solving workshops, case-based learning, and skills training. Working collaboratively with the Jaffna team, we co-created training materials to improve knowledge on External Ventricular Drain (EVD) management, Glasgow Coma Scale (GCS) assessment, and education materials for patients and caregivers, such as urinary catheter care and nasogastric tube feeding. Project BRAIN's physiotherapist taught practical skills such as mobilisation techniques for allied health professionals, nurses, and faculty members, and co-created mobilisation charts. Jaffna physiotherapists were also trained in the use of cough assist machine led by Project BRAIN's physiotherapist. The clinical observer-ship at SingHealth for three delegates led to implementation of several new initiatives including a ward-based gym, standardised emergency trolleys, patient headboards, a staff appreciation board in the wards, and case-based learning sessions in the University of Jaffna.

Assessment was conducted for 71 Jaffna nurses by the six Jaffna trainers for GCS assessment and EVD management, using a unit-based competency checklist co-created during the programme; a six-weeks short course on traumatic brain injury for nurses was co-developed with the faculty of University of Jaffna.

Conclusion
Using a systematic approach incorporating interprofessional education frameworks, co-creation with local partners and train-the-trainer models has allowed project BRAIN to successfully train an interprofessional team of healthcare providers to manage neuroscience in Sri Lanka. Project BRAIN will continue to train more local trainers to ensure sustainability of the programme and co-develop future courses, such as stroke management with the University of Jaffna.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EDUCATING FOR CHANGE: A NATIONAL SURVEY OF PLANETARY HEALTH AWARENESS AND LEARNING NEEDS IN CHINESE HEALTHCARE

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Background and Aims
The healthcare sector is a significant contributor to global carbon emissions, a critical issue in China, which is currently the world's largest emitter of carbon dioxide. Planetary health education is pivotal for equipping the health workforce with the knowledge and competencies required to mitigate this impact. This national survey aimed to assess Chinese clinicians' awareness of climate change and health, evaluate the current status of planetary health education, and identify specific learning needs and preferences to inform future curriculum development.

Methods
A comprehensive, cross-sectional online survey was conducted nationwide in 2025. The 53-item questionnaire, developed from existing literature and piloted with surgeons, incorporated Likert-scale and multiple-choice items covering demographics, beliefs about climate change, perceived relevance to healthcare, attitudes toward sustainability education, preferred learning modalities, and current sustainable practices. Descriptive statistical methods were employed for data analysis.

Results
Among 18,810 respondents from across China, 86.1% agreed that climate change is occurring, and 84.0% recognised it as a threat to human health. Most clinicians (75.2%) believed their patients would be affected, and 76.6% reported personal concern about climate change. A large majority (86.2%) considered sustainability a priority for healthcare institutions, and 79.8% endorsed sector-wide collective action. Shared responsibility was most frequently identified (46.1%), followed by governments (13.7%), the healthcare industry (14.8%), individual professionals (11.4%), and hospital administrations (9.7%). While 81.7% reported knowledge of climate and environmental change, only 50.5% and 54.4% indicated familiarity with planetary boundaries and the 10R circular-economy model, respectively. Formal exposure to sustainability education remained limited—18.9% had received none, and 53.5% reported fewer than five hours of related training. Nonetheless, 77.4% expressed willingness to participate in future programs, and 70.7% were willing to teach peers. Top learning priorities included understanding healthcare's environmental impacts (81.9%), practical mitigation strategies (82.0%), and examples of local action (79.7%). Videos (65.0%), lectures (43.6%), social media (39.3%), and online modules (39.2%) were the most preferred learning formats, while hospitals and departments were viewed as the most suitable venues. Sustainable workplace behaviors were frequently reported: 87.3% regularly separated medical waste, 72.4% reduced single-use materials, and 78.2% advocated for greener practices. Key barriers to learning included lack of time (63.9%), resources (60.9%), accessible courses (56.4%), and institutional support (47.5%). Notably, 92.1% supported the allocation of protected training time, with half recommending one to five hours annually.

Conclusion
This study identifies a pronounced gap between high awareness and limited formal education on planetary health among Chinese clinicians. The findings demonstrate strong motivation and well-defined learning needs, providing an evidence base for developing a contextually relevant, practice-oriented planetary health curriculum. Integrating these competencies into medical education represents an essential step toward cultivating a climate-resilient and sustainable healthcare system in China.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

SAF MENTORSHIP PROGRAM: SHAPING FUTURE LEADERS IN THE SAF MEDICAL CORPS

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Background and Aims
Mentorship has long been identified as a principal component of leadership development, enhancing professional development, and catering to the personal development of individuals in both civilian and military organisations. Within the Singapore Armed Forces (SAF) Medical Corps, this principle has assumed further significance as the need to create a confident, capable, and future-ready force becomes more critical. As Clutterbuck (2015) aptly stated, "Mentoring is viewed as a key element in an effective fighting force of the future." Accordingly, the SAF Medical Training Institute (SMTI) embarked on implementing a formalised mentorship programme to build leadership capability, strengthen interpersonal support, and offer systematic career guidance for servicemen and women to navigate difficult medical and operational landscapes.

Methods
The programme was formulated and rolled out in a phased manner. First, the mentors were chosen and trained using structured coaching modules, including the AMB025 course that dealt with effective communication, growth mindset development, and mentoring competencies for 21st-century learning environments. Then, the mentorship structure was formally established at SMTI, encompassing five big units of the Medical Corps. A mentee-centred approach was taken in a matching process where mentees identified mentors whose experiences and expertise matched their goals and aspirations. To complement this interaction, online resources were also created to increase accessibility and communication and to serve as a mechanism for tracking progress. Program effectiveness was also continuously assessed through user feedback surveys, scheduled reflective check-ins and program indicators, which could allow for timely revision and evidence-based decision making.

Results
The survey conducted discovered a positive impact of formal mentorship on mentors and mentees. Eighty two percent of mentees experienced greater career planning and development clarity, while seventy six percent of mentors cited the experience as being influential in their leadership and communication skills development. Seventy percent of mentees enjoyed being able to form worthwhile professional networks, and sixty eight percent reported greater job satisfaction and support. However, several challenges emerged. Mentees described uncertainties in posting opportunities, insufficient guidance, and difficulties in balancing educational needs with operational roles. Mentors noted time constraints, inexperience with mentoring, and uncertainty with regard to boundaries of role as barriers to stronger engagement.

Collectively, findings led to responsive changes to the program including more preparation for mentors, more frequent engagement sessions, and use of online tools that were easily accessed, and which allowed for setting and tracking goals.

Conclusion
The SAF Medical Corps mentorship program has established an effective and responsive system of leadership development, career guidance, and culture of lifelong learning. Through its organised training, purposeful pairing and research-based evolution, the program has contributed to the professional development and employable readiness of both mentees and mentors. Even though the SAF has exhibited a high level of investment in people, mentorship will remain as a bedrock in establishing the next generation of confident, resilient and mission ready medical leaders. Future evolution of the program will leverage earlier engagement, increased career alignment, and sustainable support networks that will promote them thriving professionally and personally in their military and post-military lives.

THE ASIA-PACIFIC SCHOLAR
MEDICAL AND HEALTH PROFESSIONS EDUCATION

EXPLORING LEARNING STYLES, READINESS, BARRIERS, AND PERCEPTIONS TOWARD ONLINE LEARNING AMONG NURSING STUDENTS IN MALAYSIAN PUBLIC UNIVERSITIES

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Background and Aims
The Covid-19 pandemic has transformed the higher education landscape, with online learning emerging as a primary mode of instruction. In nursing education, this transition presents distinctive challenges due to the integration of theoretical and clinical components. Understanding how nursing students adapt to online learning is essential to maintain educational quality and learning outcomes. This study aimed to examine the learning styles, readiness, barriers, and perceptions toward online learning among nursing students in Malaysian public universities.

Methods
A cross-sectional online survey was conducted among diploma and degree nursing students from Malaysian public universities between January and July 2023. Universal sampling was employed, and academic lecturers assisted in distributing the survey link to their students. A total of 246 respondents participated in the study. The questionnaire, adapted from several validated instruments, assessed learning styles, readiness, barriers, and perceptions toward online learning. Descriptive statistics were used to analyse the data and determine the mean scores for each construct.

Results
Findings revealed variations in students' learning preferences that influenced their online learning engagement. The auditory learning style recorded the highest mean score (M = 2.78), while the visual learning style had the lowest (M = 1.98). Among the barriers, administrative factors were the most significant (M = 2.02), while technological barriers were least reported (M = 1.85). Overall, students demonstrated positive perceptions toward online learning, with mean scores exceeding the theoretical mean of 2.5. Readiness for online learning was also high, with scores above 3.5, indicating strong adaptability and preparedness among nursing students.

Conclusion
This study concludes that online learning in nursing education is perceived positively and effectively supports students' acquisition of knowledge, skills, and attitudes. Despite the presence of administrative and technological challenges, nursing students in Malaysian public universities showed high readiness and adaptability to online education. Strengthening institutional support, enhancing online teaching strategies, and improving digital infrastructure are recommended to optimise the implementation and sustainability of e-learning in nursing programs.