IMEC 18th International Medical Education Conference

ICME International Conference On Medical Education

ICME-IMEC JOINT CONFERENCE 2025

Globalisation of Health Professions Education: Strategies, Stakeholders and Sustainability

9-12 October 2025 | IMU University, Kuala Lumpur, Malaysia

Co-organised by:

IMU UNIVERSITY

RIPHAH INTERNATIONAL UNIVERSITY

Supported by:

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ABOUT ICME-IMEC 2025

The 2025 Joint Conference of the 8th International Conference on Medical Education (ICME) and the 18th International Medical Education Conference (IMEC) will be held from 9 to 12 October 2025 at the Bukit Jalil Campus, IMU University.

With the theme "Globalisation of Health Professions Education: Strategies, Stakeholders, and Sustainability," the conference promises an enriching experience for all participants. Globalisation has reshaped health professions education through mobility programmes, internationally oriented curricula, and cross-border research collaborations. This theme highlights the importance of vibrant and diverse learning environments that foster both clinical and cultural competence.

The conference aims to:

- Explore global strategies while addressing current challenges and future directions in health professions education.
- Promote innovative teaching methods and technologies that support long-term sustainability.
- Engage stakeholders in meaningful dialogue to strengthen collaboration across borders.

While globalisation brings opportunities for innovation and resilience in healthcare, it also raises challenges related to maintaining education quality, accreditation, ethical considerations, and supporting the well-being of international learners. This conference offers a dynamic platform for sharing insights, experiences, and strategies to navigate these complexities.

Designed for educators, researchers, healthcare professionals, policymakers, and students, the conference provides valuable opportunities for networking, collaboration, and learning from industry leaders and innovators who are shaping the future of healthcare and health professions education.

THE IMU-RON HARDEN INNOVATION IN MEDICAL EDUCATION AWARD (IMU-RHIME AWARD)

The IMU-Ron Harden Innovation in Medical Education Award was introduced with IMEC-2008 to fulfill two objectives:

1) To encourage innovations in medical education (medical = health professions)
2) To recognise innovations by academics which otherwise might go unnoticed

The award honours Professor Ronald Harden who played a crucial role in the inception of the International Medical University; and is a prestigious award because Ron is widely accepted as a "guru" in medical education worldwide.
It carries a rolling trophy and cash prize of RM2,000.

IMU RHIME PAST WINNERS

2008 - John Paul Judson
International Medical University, Malaysia

2009 - Thanikachalam, Sri Kumar Chakravarthi, A.Tay and Vijay Singh
International Medical University, Malaysia

2010 - Julie Chen, Diane Salter and LC Chan
University of Hong Kong

2011 - (6th AMEA Symposium) Arkendu Sen and Lakshimi Selvaratnam
Monash University Sunway Campus, Malaysia

2012 - (15th Ottawa Conference) Maria Ahmed
Imperial College London, United Kingdom

2013 - Muhamad Saiful Bahri Yusoff, Mohd Hamil Yaacob, Syed Hatim Noor and Abd Rahman Esa
Universiti Sains Malaysia, Kelantan, Malaysia

2014 - Romesh P Nalliah
Harvard School of Dental Medicine, Massachusetts, United States of America

2015 - Arkendu Sen and Lakshimi Selvaratnam
Monash University Sunway Campus, Malaysia

2016 - Chris O'Callaghan and Chris Williams
Institute of Child Health, University College London, United Kingdom

2017 - Prashanti Eachempati, Sumanth KN and Abd Rashid Hj Ismail
Melaka Manipal Medical College, Malaysia

2018 - Regi Septian, Tjahjodjati and Kuncoro Adi
Padjadjaran University, Indonesia

2019 - (10th AMEA Symposium) Madawa Nilupathi Chandratilake, Dilmini Karunaratne, Gamini Wijayarathna, Thashika Rupasinghe and Chamli Pushpakumara
University of Kelaniya, Sri Lanka

2020 - (19th Ottawa Conference) Elizabeth Wenghofer, Robert Steele, Tammy Wagner, Peter Yu and Nancy Dickey
Texas A&M University College of Medicine, United States

2021 - Nurhanis Syazni Roslan, Muhamad Saiful Bahri Yusoff, Karen Morgan, Asrenee Ab Razak and Nor Izzah Ahmad Shauki
Universiti Sains Malaysia, RCSI-Perdana University & Ministry of Health Malaysia, Malaysia

2022 - Vasudeva Rao Avupati, Mallikarjuna Rao Pichika, Mohd Zulkefeli, Lee Choy Sin, Zabibah binti Ibrahim and Hasnain Zafar Baloch
International Medical University, Malaysia

2023 - Enoch Chan
The University of Hong Kong

2024 - Mayura Damanhuri, Soo Tein Ngoi, Wei-Han Hong, Mohd Hafyzuddin Md Yusuf, Mohammad Aizuddin Azizah Ariffin, Mei Chan Chong, Mohd Afiq Mohd Nor, Ina Ismiarti Shariffuddin
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CONTENTS

WELCOME MESSAGE FROM THE VICE-CHANCELLOR IMU UNIVERSITY

Academician Professor Emerita
Datuk Dr Asma Ismail
CEO and Vice Chancellor, IMU University.

It is my great pleasure to welcome all of you to the ICME-IMEC 2025 Joint Conference on **"Globalisation of Health Professions Education: Strategies, Stakeholders, and Sustainability."**

This event is a truly special occasion, co-organised by two universities from Malaysia and Pakistan, both proud recipients of the prestigious ASPIRE Certificate of Merit in Faculty Development awarded by AMEE (Association for Medical Education in Europe). Though different in geography and culture, we are united by a shared enthusiasm and commitment to advancing health professions education, building capacity, and embracing innovations in health professions education.

We are honoured to host this gathering here in Malaysia, a country that celebrates diversity and inclusivity. With more than 400 participants from 30 countries, this conference provides a vibrant platform for dialogue, collaboration, and the exchange of transformative ideas.

The programme brings together inspiring speakers from across the globe, including Australia, Bahrain, Egypt, India, Indonesia, Lebanon, Netherlands, United States United Kingdom, Pakistan, Philippines, Saudi Arabia, Singapore, Switzerland, United Arab Emirates and Malaysia. It offers engaging and forward-looking sessions that will challenge our thinking and spark new opportunities for growth.

I would also like to take this opportunity to express my heartfelt appreciation to the organising committees from both universities, who have worked tirelessly to design an enriching programme and to ensure the smooth and successful running of this event. My sincere thanks also go to our exhibitors and sponsors, whose support has made this conference possible.

As we explore strategies, engage diverse stakeholders, and envision sustainable pathways for the future, I hope this conference will not only deepen your knowledge but also strengthen international networks and foster collaborations that extend well beyond these few days.

On behalf of the organising institutions, I warmly welcome you to the conference, and I wish you an enriching, meaningful, and memorable experience.

WELCOME MESSAGE FROM THE VICE-CHANCELLOR
RIPHAH INTERNATIONAL UNIVERSITY

Professor Dr Anis Ahmad
Vice Chancellor,
Riphah International University

It gives me immense pleasure to welcome you to the **9th International Conference on Medical Education (ICME)** in conjunction with the **18th International Medical Education Conference (IMEC)**, jointly organized by **Riphah International University, Pakistan** and the **International Medical University, Malaysia.**

It is my distinct honor to extend a warm welcome to Professor Emerita Datuk Dr. Asma Ismail, Vice Chancellor of IMU, whose leadership and vision have been instrumental in shaping this collaboration. I also warmly welcome all distinguished conference speakers and delegates whose presence, and contributions enrich this global academic gathering.

In an era where healthcare challenges transcend borders, the responsibility of preparing competent, ethical, and compassionate health professionals has become a global mission. This conference provides a unique platform for educators, researchers, practitioners, and policymakers from across the world to engage in meaningful dialogue, share innovations, and build collaborative strategies that will shape the future of medical education.

At Riphah International University, our commitment has always been to integrate professional excellence with ethical values, nurturing graduates who not only excel in their fields but also serve humanity with integrity and compassion. Through this partnership with IMU and with the support of our esteemed international collaborators, ICME-IMEC 2025 reflects our shared vision of advancing quality health professions education that is inclusive, sustainable, and responsive to the needs of society.

May this conference be an enriching experience that fosters new insights, lasting collaborations, and impactful innovations in medical education worldwide.

WELCOME MESSAGE FROM THE CONFERENCE ORGANISING CHAIR & CO-CHAIR,

IMU UNIVERSITY AND RIPHAH INTERNATIONAL UNIVERSITY

Professor Dr Er Hui Meng
Chair, Organising Committee

Professor Dr Rahila Yasmin
Co-Chair, Organising Committee

It is with great pleasure that we, on behalf of the Organising Committee, extend a warm welcome to all distinguished dignitaries, esteemed speakers, delegates, and participants joining us for the Joint ICME-IMEC 2025 Conference. We are deeply honoured by your presence at this landmark event, which promises to be an enriching platform for sharing ideas, advancing scholarship, and strengthening collaborations in health professions education.

The International Conference on Medical Education (ICME) has a proud history of bringing together global leaders, educators, and researchers to advance the science and practice of medical education. Since its launch by Riphah International University in 2009, ICME has been previously organized in Abu Dhabi, Mauritius, Istanbul, Joint ICME with Ottawa, Islamabad, Yogyakarta, and in Baku (2023). Over the years, it has emerged as a hub for innovation, capacity building, and scholarly exchange to shape the future of medical education worldwide. We are especially delighted that ICME is now being hosted in Malaysia for the very first time, marking another milestone in its journey of global outreach.

Meanwhile, the International Medical Education Conference (IMEC), hosted annually by IMU University (formerly known as the International Medical University)

since 2004, has served as a prominent platform for regional and international educators, practitioners, and researchers to connect, engage, exchange ideas, and showcase innovations in health professions education. With a strong emphasis on advancing educational practices, IMEC has consistently fostered dialogues on emerging trends and priorities in medical and health professions education.

This year marks a historic milestone as ICME and IMEC join hands for the very first time to organize the Joint ICME-IMEC 2025 Conference. This collaborative venture represents the shared vision and commitment of both institutions to provide an integrated platform where ideas, innovations, and strategies converge. Under the theme "Globalisation of Health Professions Education: Strategies, Stakeholders, and Sustainability", this conference offers participants the unique benefit of two prestigious conferences under a single registration, combining the strengths, networks, and traditions of both ICME and IMEC.

We are delighted to share that the conference has drawn over 400 participants from 30 countries, reflecting the diversity and international reach of this joint initiative. The program has been thoughtfully curated to include keynote addresses, plenary sessions, oral and poster presentations, interactive pre-conference workshops, courses and networking opportunities. Highlights include thought-provoking discussions on globalization, stakeholder engagement, sustainability in education, ethical challenges, equity and inclusion, and emerging innovations that will shape the future of health professions education.

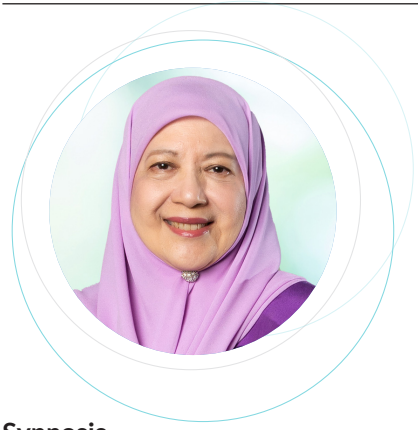
The theme of this conference could not be more timely. As health professions education continues to navigate the challenges of globalization, digital transformation, and evolving healthcare needs, the focus on strategies, stakeholders, and sustainability offers a roadmap for meaningful change. We hope the outcomes of this gathering will not only advance educational practices but also strengthen international collaborations to ensure health professions education remains responsive, equitable, and future-ready.

On behalf of the Organising Committee, we express our heartfelt gratitude to our partners, contributors, sponsors, exhibitors, and participants for making this joint venture possible. We look forward to fruitful deliberations, inspiring exchanges, and the building of lasting partnerships.

Once again, welcome to ICME-IMEC 2025. Together, let us shape the future of health professions education.

KEYNOTE ADDRESS

Transforming Higher Education – Innovation, Equity and Sustainability Across Sectors



Day/Date : Saturday, 11 October 2025
Time : 8.40 am - 9.20 am
Venue : Mei Ling Young Auditorium 2, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Speaker: Academician Professor Emerita Datuk Dr Asma Ismail
Vice Chancellor and CEO, IMU University, Malaysia

Sypnosis

Higher education stands at a critical crossroads in a rapidly changing world shaped by technological disruption, climate change, and widening inequalities. To remain relevant and impactful, universities must transform beyond traditional roles of knowledge preservation into dynamic institutions that drive innovation, ensure equity, and champion sustainability.

This presentation explores three interconnected imperatives for reimagining higher education. First, innovation must extend beyond technology adoption to encompass new pedagogies, interdisciplinary learning, and stronger research-to-impact pathways that prepare graduates as creators, problem-solvers, and global citizens. Second, equity must be positioned as a moral and strategic priority. Access, inclusion, and belonging are essential to ensure that higher education remains a public good, empowering diverse communities and fostering resilience in uncertain times. Third, sustainability must be embedded at the heart of institutional missions, with universities modeling low-carbon campuses, embedding planetary health across curricula, and producing research that addresses pressing societal and environmental challenges.

Central to this transformation is cross-sector collaboration. Universities, governments, industry, and communities must work in synergy to co-create solutions that are both locally grounded and globally significant. By breaking down silos, higher education can bridge knowledge with practice, science with policy, and innovation with societal well-being.

The presentation concludes with a call to action: to innovate boldly, pursue equity relentlessly, and embrace sustainability wholeheartedly. Only by doing so can higher education become a powerful engine of progress—shaping not only the future of learning, but also the future of humanity and the planet.

PRE CONFERENCE PROGRAMME

DAY 1 & 2

PRE-CONFERENCE PROGRAMME

DAY 1 | THURSDAY, 9 OCTOBER 2025 - COURSES

TIME	PROGRAMME	VENUE
0900-1700	**Course 1 (Hybrid)** **Title: Leadership and Emotional Intelligence Competencies for Healthcare Professionals; its impact on Globalization** **Facilitators:** *Fadil Citaku (Switzerland), Yawar Hayat Khan (Pakistan), Rahila Yasmeen (Pakistan)*	1.12.08, Level 1, IMU Bukit Jalil
0900-1700	**Course 2 (Hybrid)** **Title: Artificial Intelligence in Medical Education** **Facilitators:** *: Rehan Ahmed Khan (Pakistan), Masood Jawaid (Pakistan), Nilesh Kumar Mitra (Malaysia)*	ICE Training Centre, Level 2, IMU Bukit Jalil

DAY 2 | FRIDAY, 10 OCTOBER 2025 - PRE-CONFERENCE WORKSHOPS

TIME	PROGRAMME	VENUE
0900-1200	**Pre-Conference Workshop - P1 (Onsite)** **Title: It takes a Village: Co-Creating the Next Generation of Health Professions Education** **Facilitators:** *Mashaal Sabqat (Pakistan), Noorul Ain (Pakistan), Sana Iqbal (Pakistan)* **Moderator:** *Javed Ashraf*	1.12.02, Level 1, IMU Bukit Jalil
	Pre-Conference Workshop - P2 (Onsite) **Title: Strengthening Cultural Intelligence in Educators and Students to Build One Health Education** **Facilitators:** *Kye Mon Min Swe (Malaysia), Nurul Iman Binti Abdul Jalil (Malaysia)* **Moderator:** *Sasikala Devi Amirthalingam*	1.12.03, Level 1, IMU Bukit Jalil
	Pre-Conference Workshop - P3 (Onsite) **Title: Faculty Development in Assessment: Addressing Equity and Inclusion** **Facilitators:** *Ara Tekian (USA), Naveed Yousuf (Pakistan)* **Moderator:** *Muneer Gohar Babar*	1.12.06, Level 1, IMU Bukit Jalil

TIME	PROGRAMME	VENUE
0900-1200	**Pre-Conference Workshop - P5 (Onsite)** **Title: Using Generative AI for Written Assessment and Qualitative Data - Applications, Opportunities and Concerns** **Facilitators:** *Ivan Low Cherh Chiet (Singapore), Lee Shuh Shing (Singapore), Chen Zhi Xiong (Singapore)* **Moderator:** *Renu Agarwal*	1.12.09, Level 1, IMU Bukit Jalil
	Pre-Conference Workshop - P6 (Online) **Title: Enhancing Global Health through Collaborative Education** **Facilitators:** *Kavitha Nagandla (Malaysia), Ismail Burud (Malaysia), Malanashita Ganeson (Malaysia)* **Moderator:** *Pathiyil Ravi Shankar*	
	Pre-Conference Workshop - P7 (Online) **Title: Cultural Competence in Clinical Education: Preparing Health Professionals for a Diverse World** **Facilitators:** *Sara Shakil (Pakistan), Kiren Habib (Pakistan), Iffat Khanum (Pakistan)* **Moderator:** *Muhammad Nadeem Akbar Khan*	
1000-1100	**E-Poster Presentation Session 1e**	1.06.02, PBL Open Area, Level 1, IMU Bukit Jalil
	E-Poster Presentation Session 1f	1.06.04, PBL Open Area, Level 1, IMU Bukit Jalil
1000-1200	**Oral Presentation Session 1a**	1.06.14-15, Level 1, IMU Bukit Jalil
	Oral Presentation Session 1b	1.06.16-17, Level 1, IMU Bukit Jalil
	Oral Presentation Session 1c	1.06.18-19, Level 1, IMU Bukit Jalil
	Oral Presentation Session 1d	1.06.01, Level 1, IMU Bukit Jalil
1300-1400	**Lunch Break**	PBL Open Area, Level 1, IMU Bukit Jalil

TIME	PROGRAMME	VENUE
1400-1700	**Pre-Conference Workshop - P9 (Onsite)** **Title: Creating Virtual Patients using Large Language Models: A Hands-on Workshop** **Facilitators:** *David Cook (USA)* **Moderator:** *Sivakumar Arunachalam*	1.12.02, Level 1, IMU Bukit Jalil
	Pre-Conference Workshop - P10 (Onsite) **Title: Advancing Quantitative, Qualitative and Mixed-Methods Research in Health Professions Education with AI and Digital Tools** **Facilitators:** *Abida Shaheen (Pakistan), Fahad Azam (Pakistan), Nosheen Kazmi (Pakistan)* **Moderator:** *Nilesh Kumar Mitra*	1.12.03, Level 1, IMU Bukit Jalil
	Pre-Conference Workshop - P11 (Onsite) **Title: Integrating Intercultural Competence in Health Professions Education: From Foundations to Clinical Practice** **Facilitators:** *Rabia Aftab (Pakistan), Aliya Ahmed (Pakistan)* **Moderator:** *Shabana Ali*	1.12.06, Level 1, IMU Bukit Jalil
	Pre-Conference Workshop - P12 (Onsite) **Title: Universal Design for Learning: Rethinking Assessment to support diverse students in a global world** **Facilitators:** *Ayesha Jawwad (Ireland), Rehan Ahmed Khan (Pakistan), Sarah Khalid (Pakistan)* **Moderator:** *Rehan Ahmed Khan*	1.12.09, Level 1, IMU Bukit Jalil
	Pre-Conference Workshop - P13 (Onsite) **Title: Psychological Safety in Global Educational Contexts** **Facilitators:** *Elizabeth Kachur (USA), Lee Yuen (Jenny) Wong (Singapore), Chao Tian Tang (Singapore),* **Moderator:** *Juliet Mathew*	ICE Training Centre, Level 2, IMU Bukit Jalil
	Pre-Conference Workshop - P14 (Online) **Title: Establishing a Globally Recognised & Sustainable Career - Nuts & Bolts of Learning, Engagement, and Networking for Early Career Health Professions Educators & Students** **Facilitators:** *Krishna Mohan Surapaneni (India), Jyotsna Needamangalam Balaji (India)* **Moderator:** *Jaiprakash Monharaj*	

TIME	PROGRAMME	VENUE
1400-1700	**Pre-Conference Workshop - P15 (Online)** **Title: Fostering Student Engagement in Health Professions Education through Quality Circles** **Facilitators:** *Khabab Abdelmoneim Elsaid Elhag (Bahrain), Mai S. Sater (Bahrain)* **Moderator:** *Katarzyna Pazcek*	
	Pre-Conference Workshop - P16 (Online) **Title: Integrating AI-enhanced Adaptive Technologies into the Health Professions Curriculum** **Facilitators:** *Olivia Tee (Malaysia), Goran Stevanovski (North Macedonia)* **Moderator:** *Sameera Gunawardena*	
1430-1630	**E-Poster Presentation Session 2f**	1.06.02, PBL Open Area, Level 1, IMU Bukit Jalil
	E-Poster Presentation Session 2g	1.06.04, PBL Open Area, Level 1, IMU Bukit Jalil
	E-Poster Presentation Session 2h	1.06.06, PBL Open Area, Level 1, IMU Bukit Jalil
1430-1630	**Oral Presentation Session 2a**	1.06.14-15, Level 1, IMU Bukit Jalil
	Oral Presentation Session 2b	1.06.16-17, Level 1, IMU Bukit Jalil
	Oral Presentation Session 2c	1.06.18-19, Level 1, IMU Bukit Jalil
	Oral Presentation Session 2d	1.06.20-21, Level 1, IMU Bukit Jalil
	Oral Presentation Session 2e	1.06.01, Level 1, IMU Bukit Jalil

TIME	PROGRAMME	VENUE
1400-1700	**UNDERGRADUATE STUDENT SYMPOSI**	PBL Open Area, Level 1, IMU Bukit Jalil
1400-1415	**Opening Remarks** Purushotham Krishnappa	1.12.08, Level 1, IMU Bukit Jalil
1415-1545	**Oral & e-poster Presentation- SS1**	1.06.08, PBL Open Area, Level 1, IMU Bukit Jalil
	Oral & e-poster Presentation- SS2	1.06.10, PBL Open Area, Level 1, IMU Bukit Jalil
	Oral & e-poster Presentation- SS4	1.06.12, PBL Open Area, Level 1, IMU Bukit Jalil
	Oral & e-poster Presentation- SS5	1.12.08, Level 1, IMU Bukit Jalil
1545-1600	**Tea Break**	
1600-1700	**Team-Based Challenge**	1.12.08, Level 1, IMU Bukit Jalil
1700-1715	**Closing Remarks** Norah Htet Htet	1.12.08, Level 1, IMU Bukit Jalil
	Moderators: *Norah Htet Htet (IMU University, Malaysia)* *Purushotham Krishnappa (IMU University, Malaysia)* *Wong Pei Se (IMU University,Malaysia)* *Rahila Yasmeen (Riphah International University, Pakistan)* *Nurul Alimah Mohd Nasir (UiTM, Malaysia/MAEMHS)*	
1800-2100	**Dinner (By Invitation)**	

MAIN CONFERENCE PROGRAMME

DAY 3 & 4

MAIN CONFERENCE PROGRAMME

DAY 3 | SATURDAY, 11 OCTOBER 2025 - MAIN CONFERENCE

TIME	PROGRAMME	VENUE
0745-0810	Registration	Foyer, Level 4
0810-0815	**Welcome Address** *Professor Er Hui Meng (Pro Vice Chancellor Education, IMU University & ICME-IMEC 2025 Organising Chair)*	Mei Ling Young Auditorium 2, Level 4
0815-0820	**Address by President of ICME** *Professor Yawar Hayat Khan (Deputy Vice Chancellor Academics & President ICME, Riphah International University)*	
0820-0825	**Opening Address** *Mr Hassan Muhammad Khan (Vice Chancellor, Riphah International University)*	
0840-0920	**Keynote Address** **Title: Transforming Higher Education – Innovation, Equity, and Sustainability Across Sectors** *Academician Professor Emerita Datuk Dr Asma Ismail (CEO & Vice Chancellor, IMU University)* **Chairperson:** *Gerard George*	
0920-1005	**Plenary 1** **Title: Building a Future for Global Health Professions Education: Structural and Strategic Approaches for Sustainability** *Vishna Devi Nadarajah (Malaysia)* **Chairperson:** *Yawar Hayat Khan*	
1005-1015	Photography Session	
1015-1045	Break, Networking & Visit Sponsor Page/ Exhibition Booths	Foyer & Dewan Canselor, Level 4
1045-1145	**Symposium 1a** **Title: Globalisation of Health Professions Education: Curriculum, Assessment, and Accreditation in an Interconnected World** *Madawa Chandratilake (Sri Lanka), Sharifah Sulaiha Syed Aznal (Malaysia), Walter Eppich (Australia)* **Chairperson/Moderator:** *Wong Pei Se*	Mei Ling Young Auditorium 2, Level 4

TIME	PROGRAMME	VENUE
1045-1145	**Symposium 1b** **Title: Equity, Diversity, and Inclusion in Sustainable Training Systems: Localised Solutions for Global Challenges** *Ahsan Sethi (Qatar), Usman Mahboob (Pakistan), Idrees Anwar (Pakistan)* **Chairperson/Moderator:** *Muneer Gohar Babar*	Mei Ling Young Auditorium 1, Level 4
1150-1250	**Symposium 2 (AMEE Symposium)** **Title: Excellence across borders: The AMEE story of global recognition, partnership and scholarship** *Anne Lloyd (United Kingdom), Kulsoom Ghias (Pakistan), Komal Atta (Pakistan)* **Chairperson/Moderator:** *Vishna Devi Nadarajah*	Mei Ling Young Auditorium 2, Level 4
	What Expert Says 1 **Title: Leading/Shaping the Future of Health Professions Education: Global Challenges and Strategic Solutions** *Mai Salah Yousuf Sater (Bahrain), Mahwish Arooj (Pakistan), Yawar Hayat Khan (Pakistan)* **Chairperson/Moderator:** *Rahila Yasmeen*	Mei Ling Young Auditorium 1, Level 4
1250-1350	Lunch Break, Visit Exhibition	Foyer & Dewan Canselor, Level 4
1300-1400	**Oral Presentation Session 3a (Online)**	
	Oral Presentation Session 3b (Online)	
	Oral Presentation Session 3c (Online)	
	Oral Presentation Session 3g (Online)	
	E-Poster Presentation Session 3d (Online)	
	E-Poster Presentation Session 3e (Online)	
	E-Poster Presentation Session 3f (Online)	
1400-1500	**Symposium 3** **Title: Teaching Ethics and Professionalism in HPE: Globalisation with Decolonisation** *Wee-Ming Lau (Malaysia), Pacifico Eric Eusebio Calderon (Philippines), Muhammad Shahid Shamim (Pakistan)* **Chairperson/Moderator:** *Jaiprakash Monharaj*	Mei Ling Young Auditorium 2, Level 4

TIME	PROGRAMME	VENUE
1400-1500	**What Expert Says 2** **Title: Building Stronger Health Education Systems Across Borders** *Rana Abdel Malak (Lebanon) - Ismail Matalka (UAE), Hassan Al Zahrani (Saudi Arabia)* **Chairperson/Moderator:** *Shabana Ali*	Mei Ling Young Auditorium 1, Level 4
1505-1605	**Symposium 4a** **Title: Global Strategies in Higher Education: Expanding Reach Through Transnational Collaboration** *Saadia Sultana (Pakistan), Muhammad Nadeem Akbar Khan (Pakistan), Fadil Citaku (Switzerland)* **Chairperson/Moderator:** *Heethal Jaiprakash*	Mei Ling Young Auditorium 2, Level 4
	Symposium 4b **Title: Global Strategies in Higher Education: Expanding Reach Through Transnational Collaboration** *Kim Dale (UK), Ian Symonds (Malaysia), Savithiri Sathivelu (Malaysia-UK)* **Chairperson/Moderator:** *Gnanajothy Ponnudurai*	Mei Ling Young Auditorium 1, Level 4
1610-1655	**Plenary 2** **Title: Educational Technologies for Global Education: Balancing Hype, Evidence, Impact and Sustainability** *David Cook (USA)* **Chairperson/Moderator:** *Nilesh Kumar Mitra*	Mei Ling Young Auditorium 2, Level 4
1800-2000	**Welcome Reception**	Komune Living Wellness, Cheras

DAY 4 | SUNDAY, 12 OCTOBER 2025- MAIN CONFERENCE AND POST CONFERENCE WORKSHOP

TIME	PROGRAMME	VENUE
0800-0815	Registration	Foyer, Level 4
0815-0900	**Plenary 3** **Title: Voices from the field: Exploring the Complex Dynamics of Global Education Ecosystems** *Wagdy Talaat (Egypt), Hossam Hamdy (UAE)* **Chairperson/Moderator:** *Rehan Ahmed Khan*	Mei Ling Young Auditorium 2, Level 4

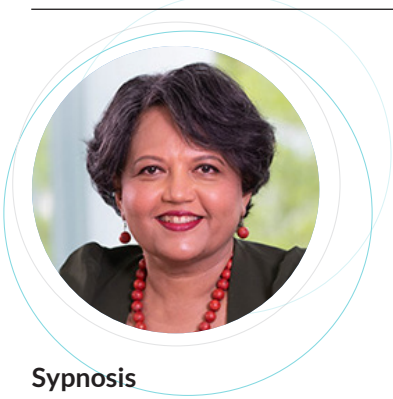
TIME	PROGRAMME	VENUE
0900-1015	**IMU-Ron Harden Innovation in Medical Education (IMU – RHIME) Presentations** **Chairperson:** *Er Hui Meng* **Moderator:** *Siti Suriani Abd Razak*	Mei Ling Young Auditorium 1, Level 4
1015-1045	Break, Networking & Visit Sponsor Page/ Exhibition Booths	Foyer & Dewan Canselor, Level 4
1045-1145	**Symposium 5a** **Title: Artificial Intelligence in Global Health Professions Education: Strategies for Sustainable Integration** *Masood Jawaid (Pakistan) , Madiha Sajjad (Pakistan), Rehan Ahmed Khan (Pakistan)* **Chairperson/Moderator:** *Saadia Sultana*	Mei Ling Young Auditorium 2, Level 4
	Symposium 5b **Title: Precision Learning in Medicine: AI-Driven Spaced Repetition and Adaptive Mastery** *Abida Shaheen (Pakistan), Fahad Azam (Pakistan), Mohammad Iqbal Khan (Pakistan)* **Chairperson/Moderator:** *Ebenezer Chitra*	Mei Ling Young Auditorium 1, Level 4
1150-1250	**Symposium 6a (IAMSE Symposium)** **Title: Opportunities, challenges, and future directions of health professions education research on a global scale** *Peter GM de Jong (The Netherlands), Chen Zhi Xiong (Singapore), Rina Masadah (Indonesia)* **Chairperson/Moderator:** *Elizabeth Kachur*	Mei Ling Young Auditorium 2, Level 4
	Symposium 6b **Title: Sustaining Faculty Excellence in Globalization of Health Professions Education** *Rahila Yasmeen (Pakistan), Shabana Ali (Pakistan), Muhammad Saiful Bahri Yusoff (Malaysia)* **Chairperson/Moderator:** *Purushotham Krishnappa*	Mei Ling Young Auditorium 1, Level 4
1250-1350	Lunch and Networking	Dewan Chancellor & Open Area, Level 4

TIME	PROGRAMME	VENUE
1350-1435	**Closing Plenary** **Title: Envisioning the Future of Global Health Professions Education – Key Insights and Strategic Directions** *Ronald Harden (United Kingdom)* **Chairperson/Moderator:** *Sow Chew Fei*	Mei Ling Young Auditorium 2, Level 4
1435-1500	Presentation of Awards for Oral, E-Poster & IMU-Ron Harden Innovation in Medical Education (IMU-RHIME) and Undergraduate Student Symposia Presentation of Zulfiqar Lifetime Achievement Award by Mr Muhammad Hassan Khan, Chancellor Riphah International University and Professor Rahila Yasmeen. Closing Remark by Professor Anis Ahmed Khan, Vice Chancellor Riphah International University. ICME Announcement Final Closing Remark by A/P Dr Sow Chew Fei and Prof Rehan Ahmed Khan, Scientific Chair and Co-chair.	Mei Ling Young Auditorium 2, Level 4

PLENARIES

PLENARY 1

Building a Future for Global Health Professions Education: Structural and Strategic Approaches for Sustainability



Day/Date : Saturday, 11 October 2025
Time : 9.20 am - 10.05 am
Venue : Mei Ling Young Auditorium 2, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Speaker: Professor Vishna Devi Nadarajah
Provost & CEO
Newcastle University Medicine Malaysia

Sypnosis

Globalisation in health professions education (HPE) refers to the growing interconnectedness of curricula, institutions, and workforce development across borders. It is expressed through models such as international branch campuses, transnational partnerships, joint or dual-degree programmes, and globally benchmarked accreditation systems. These initiatives have expanded opportunities for student mobility, faculty exchange, collaborative research, and cross-cultural learning, while contributing to a more mobile and internationally aligned health workforce.

Yet globalisation also presents significant challenges. Institutions must ensure quality and comparability across contexts, balance international benchmarks with local health system needs, and address the ethical implications of health workforce migration. Disparities in resources risk widening inequities between countries, while the demands of aligning curricula with multiple standards place strain on institutions and educators.

To address these issues, structural approaches are needed, including resilient institutional partnerships, robust accreditation frameworks, harmonised assessment standards, and systematic faculty development to strengthen capacity and competencies. Strategically, universities must embed adaptability into curricula, cultivate intercultural competence, and engage meaningfully with local communities and health systems. Through these combined efforts, globalisation in HPE can advance from replication of models to more equitable and sustainable forms of collaboration that strengthen both local and global health.

PLENARY 2

Educational Technologies for Global Education: Balancing Hype, Evidence, Impact and Sustainability

Day/Date : Saturday, 11 October 2025
Time : 4.10 pm - 4.55 pm
Venue : Mei Ling Young Auditorium 2, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Speaker: Professor David Cook
Professor of Medical Education,
Professor of Medicine,
Mayo Clinic College of Medicine,
United States of America

Sypnosis

How are Educational Technologies currently used in medical education? How well do they work? What does the future hold? Amidst a rapidly-shifting landscape, Dr. Cook will answer these questions as he highlights current applications of technology in health professions education, summarizes research on their efficacy, anticipates future key issues, and identifies important research themes. Since change is inevitable (there will always be new technologies), he suggests that educators focus on selecting the right technology for a given objective, integrating new technologies with traditional approaches, and using evidence-based principles of teaching and learning.

PLENARY 3

Voices from the field: Exploring the Complex Dynamics of Global Education Ecosystems

Day/Date : Sunday, 12 October 2025
Time : 8.15 am - 9.00 am
Venue : Mei Ling Young Auditorium 2, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Speaker: Professor Wagdy Talaat
Egyptian Society for Medical Education, Egypt

Sypnosis

This plenary brings the voices from the field (students, educators, policymakers, commu-nity and healthcare practitioners) into the discussion on the global dynamics of health ed-ucation. The session explores how different educational ecosystems (rural, urban, devel-oping countries, and high-resource settings) influence global health professions education and address challenges such as language barriers, access to education, and inequities in healthcare training. The plenary focuses on inclusive approaches and the importance of understanding local contexts while building a globalised education system. Attendees will gain insights into how the international mobility of students is reshaping local healthcare systems and how cultural exchange and partnerships can foster more inclusive, adaptable, and sustainable education models.

Presentation Synopsis:
Determinants of Community-Oriented Education in health professions

Community-Oriented Education is increasingly prioritized in health professions curricula, but evidence on determinants for effective implementation is dispersed. This plenary aims to address the key determinants of community-oriented education to guide curriculum design, implementation and evaluation in health professions.

PLENARY 3

Speaker: Professor Hossam Hamdy
Professor of Surgery and Medical Education , Gulf Medical University. Ajman, United Arab Emirates

Presentation Synopsis:

The present and Near Future of health professions education Ecosystem. Seeing it through the lens of Systems Thinking.

Healthcare Systems are inherently complex.The level of complexity further increases when interacting with health professions education systems, a “Wicked Problem”. Several disruptive forces are rapidly changing the two interrelated systems. Community and Patients expectations, new value-based Healthcare from disease models to wellness models, advances in medical knowledge, informatics and AI are changing the way how to prepare health professionals for the future. How students learn, how faculty teach, new student assessment systems and new approaches for quality assurance and accreditation of educational programs are evolving.

The presentation will address the ongoing transformation and importance of viewing it through the lens of systems thinking.

CLOSING PLENARY

Envisioning the Future of Global Health Professions Education – Key Insights and Strategic Directions

Day/Date: Sunday, 12 October 2025
Time: 1.50 pm - 2.35 pm
Venue: Mei Ling Young Auditorium 2, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Speaker: Professor Ronald Harden
Professor (Emeritus) Medical Education, University of Dundee, United Kingdom
Editor-in-chief, Medical Teacher United Kingdom.

Sypnosis

The closing plenary synthesises insights from all previous discussions and looks forward to the future of global health professions education.

In 1859 Charles Blondin amazed crowds by walking a tightrope across Niagara Falls. He did it again and again, sometimes blindfolded, sometimes even carrying a man on his back. His feat teaches us something about medicine: true mastery comes from deliberate practice. There is also a message about the future of health professions education - that balance is of the greatest importance, balance between:

1. Globalisation and localisation
2. Technology and human interventions
3. The roles of the different stakeholders
4. The difference elements in a curriculum, and
5. Providing students with the necessary knowledge and skills they require on graduation and futureproofing them for a career in medicine.

These five columns in the support of future health professions education are considered in this presentation. There is a need to be bold and for confidence to act. Crossing the Falls was inherently risky: the outcome was never guaranteed.

Finally in the presentation you are asked where you wish to be with regard to the future of health professions education in Weber's three cages (Ritzer et al., 2018) - in an iron cage with McDonaldization of health professions education, in a velvet cage comfortable or even desired, or in a rubber cage which is more flexible so that you can pull the bars apart and escape and bring about change in health professions education.

SYMPOSIA

SYMPOSIUM 1A

Globalisation of Health Professions Education: Curriculum, Assessment, and Accreditation in an Interconnected World

Day/Date : Saturday, 11 October 2025
Time : 10.45 am - 11.45 am
Venue : Mei Ling Young Auditorium 2, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Synopsis

Thi symposium explores innovative strategies to globalise health professions education, focusing on how educational institutions can adapt to and promote a more interconnected global system. It addresses the role of technology, policy development, and integrating global health perspectives into curricula. Discussions will highlight strategies for overcoming challenges, such as regional disparities in resources while ensuring the incorporation of diverse health systems into educational frameworks. The goal is to develop actionable strategies for creating a cohesive, globally responsive health education model.

Speaker 1:

Professor Madawa Chandratilake
Professor and Chair of Medical Education,
Faculty of Medicine, University of Kelaniya, Sri Lanka.

Presentation Synopsis

What Are We Measuring? Unpacking Assessment Debates in a Globalised HPE Landscape

In a globalised healthcare education (HPE) environment, the inquiry "What are we assessing?" has never been more urgent. Global standards and accreditation frameworks are increasingly influencing student assessments, prompting essential discussions regarding what defines readiness for practice across various contexts. This discussion explores four central tensions within these arguments.

The initial point is standardisation compared to contextual significance. Standardisation offers consistency and comparability across nations, whereas contextualization guarantees that evaluations mirror the truths of local practices. The second aspect is global skills compared to local requirements. Models like CanMEDS and WHO's global competency frameworks seek universal standards, yet national health priorities—like the equilibrium between communicable and non-communicable diseases—require evaluations that ready graduates for their direct practice settings.

The third aspect is validity among different cultures and systems. Values accepted in one cultural or institutional setting may differ in significance in another, leading to difficulties in guaranteeing fairness and comprehension of outcomes. Ultimately, concerns of equity and fairness arise, as students from various linguistic, socioeconomic, or geographic backgrounds face unequal chances in high-stakes evaluations.

Although these discussions existed before new technologies, artificial intelligence (AI) currently amplifies them. AI provides possibilities for automated assessments for consistency, creation of contextually appropriate scenarios, and resources to identify cultural or language bias. Simultaneously, it presents difficulties: essays generated by AI challenge construct validity, and AI-driven proctoring could exacerbate inequities.

The discussion encourages educators to thoughtfully consider whether existing assessment methods truly evaluate what is significant: knowledge, abilities, decision-making, or adherence to worldwide standards. By integrating worldwide standards with contextual awareness and utilising AI ethically, evaluations can advance toward enhancing both equity and preparedness for a healthcare workforce that is varied, mobile, and internationally linked.

Speaker 2:

Professor Sharifah Sulaiha Syed Aznal
Professor of Obstetrics & Gynaecology,
Dean, School of Medicine, IMU University, Malaysia.

Presentation Synopsis

Bridging Borders: How Globalisation is Shaping Accreditation in Health Professions Education

As globalisation continues to transform higher education, its influence on health professions education (HPE) accreditation has become increasingly pronounced. This symposium critically examines the evolving impact of global frameworks on national accreditation processes, and the complex interplay between international benchmarks and local realities.

Driven by the desire for international recognition and graduate mobility, many countries are aligning their accreditation standards with global models such as those endorsed by the World Federation for Medical Education (WFME). This convergence has brought about systemic changes, including curriculum harmonisation, enhancement of faculty development frameworks, and the refinement of institutional quality assurance processes.

However, such global alignment is not without challenges. The wholesale adoption of international standards can sometimes marginalise local educational philosophies, cultural nuances, and health system priorities. There is a real risk of homogenisation that may not

serve the diverse needs of local populations or national healthcare goals.

This session will explore how institutions and regulators can navigate these tensions. Emphasis will be placed on maintaining contextual relevance while engaging meaningfully with global expectations. Discussion shall reflect on strategic approaches that uphold educational quality without compromising national identity and priorities.

Speaker 3:

Professor Walter Eppich
Professor of Work Integrated Learning,
Department of Medical Education and Collaborative Practice Centre,
University of Melbourne, Australia

Presentation Synopsis

Developing Educators for Globalised HPE: Which Competencies Matter?

Globalisation is reshaping health professions education (HPE), as curricula, assessments, and accreditation systems adapt to an interconnected world. This talk explores the opportunities and tensions of preparing both graduates—and health professions educators—for both local service and global mobility. We will examine convergences in competency frameworks, the challenges of culturally sensitive assessment across borders, and the implications of international accreditation and recognition systems. Drawing on examples from global health curricula, programmatic assessment, and accreditation initiatives, Prof Eppich will highlight how health professions educators must be equipped to navigate global standards while sustaining local relevance. Can HPE be globalised without losing contextual meaning?

SYMPOSIUM 1B

Equity, Diversity, and Inclusion in Sustainable Training Systems: Localised Solutions for Global Challenges

Day/Date : Saturday, 11 October 2025
Time : 10.45 am - 11.45 am
Venue : Mei Ling Young Auditorium 1, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Synopsis

Healthcare training systems in many countries remain fragmented and inconsistent, with limited focus on Equity, Diversity, and Inclusion (EDI). In-service training often excludes underrepresented groups such as primary care doctors, nurses, and allied health professionals, leading to disparities in workforce development. Accreditation frameworks and medical education curricula frequently rely on Western models, failing to address the socio-cultural dynamics and systemic barriers present in local contexts.

There is a shortage of locally developed evidence and frameworks that incorporate EDI principles into healthcare training systems. While global discussions on EDI are growing, context-specific approaches that meet the diverse needs of healthcare professionals in regions like South Asia are lacking. Without locally adapted systems, healthcare training remains disconnected from practical service delivery, reinforcing inequities and undermining long-term sustainability.

Without integrating EDI into healthcare training systems, healthcare inequalities will continue to grow, particularly in under-resourced regions. This gap risks maintaining systemic barriers and excluding varied perspectives from influencing healthcare delivery, ultimately leading to poorer patient outcomes and a workforce that is unprepared to meet the diverse needs of the populations they serve.

Objective of the Symposium: To explore and discuss practical strategies for embedding Equity, Diversity, and Inclusion into sustainable healthcare training systems, with a focus on locally developed solutions that can be adapted globally.

SYMPOSIUM 1B

Speaker 1:

Associate Professor Dr Ahsan Sethi
Associate Professor, Founding Program lead and Chair Research Network Group, Health Professions Education, Health Sector, Qatar University, Doha, Qatar

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Presentation Synopsis

Incorporating Equity, Diversity, and Inclusion into Accreditation Systems

Exploring how EDI principles can be embedded into Continuing Professional Development (CPD) accreditation frameworks to ensure fair and inclusive recognition of healthcare training programmes.

Speaker 2:

Professor Dr Usman Mahboob
Associate Professor at the Institute of Health Professions Education & Research, Khyber Medical University, Peshawar, Pakistan.

Presentation Synopsis

Embedding EDI in the Sustainable Training System (STS) for Healthcare & Professionals

Prof Dr Usman is leading the Sustainable Training Systems (STS), an Evidence for Health (E4H) Programme. He will present methods for integrating Equity, Diversity and Inclusion (EDI) into the design, implementation, and operationalisation of a sustainable training system in healthcare, using Pakistan as a case study to demonstrate locally developed, context-specific approaches.

Speaker 3:

Professor Dr Idrees Anwar
Dean, HBS Hospital, Bengaluru North, Karnataka
MHPE Instructor. University of Health Sciences Lahore, Pakistan

Presentation Synopsis

Advancing EDI in Undergraduate Medical Education

Examining the role of medical education curricula in creating inclusive learning environments and preparing healthcare professionals to serve diverse patient populations.

SYMPOSIUM 2

Excellence across borders: The AMEE Aspire story of global recognition, partnership and scholarship

Day/Date : Saturday, 11 October 2025
Time : 11.50 am - 12.50 pm
Venue : Mei Ling Young Auditorium 2, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Synopsis

This symposium, hosted by AMEE, an international association committed to advancing excellence in health professions education, will examine the critical role of global partnerships in supporting educational transformation across diverse contexts.

The session will present AMEE's strategic approaches to fostering international collaboration, including its institutional membership model, international networking centres, and regional Centres for Excellence. These frameworks aim to build sustainable, mutually beneficial partnerships among health professions education institutions worldwide.

Using a global case study, we will explore how these initiatives are operationalised and their measurable impact on institutional growth and educational practice. The case study will illustrate how engagement with AMEE structures has facilitated faculty development, curricular innovation, and regional leadership in health professions education.

The symposium will also address the challenges and opportunities associated with lifelong learning and capacity building. Presenters will discuss strategies for adapting faculty development resources to diverse cultural and logistical contexts, drawing on longitudinal data and evaluative insights from the case institution.

AMEE's ASPIRE awards will be highlighted as a mechanism for recognising excellence and promoting aspirational standards and the broader implications for institutional motivation and benchmarking.

Finally, the role of research and scholarship in advancing global collaboration will be considered, with particular attention to the dissemination of knowledge through society journals and overcoming language barriers in scholarly communication.

This session aims to offer critical reflections, practical insights, and strategies for educators, leaders, and scholars engaged in or seeking to develop international collaborations in health professions education.

SYMPOSIUM 2

Speaker 1:

Dr Anne Llyod
Chief Executive Officer, AMEE, United Kingdom

Speaker 2:

Dr Kulsoom Ghias
Associate Professor & Chair, Department of Biological & Biomedical Sciences, Medical College, Aga Khan University, Pakistan.

Speaker 3:

Dr Komal Atta
Director Medical Education, AP Physiology, Department of Optometry, The University of Faisalabad, Pakistan.

SYMPOSIUM 3

Teaching Ethics and Professionalism in HPE: Globalisation with Decolonisation

Day/Date : Saturday, 11 October 2025
Time : 2.00 pm - 3.00 pm
Venue : Mei Ling Young Auditorium 2, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Synopsis

In an increasingly globalised world, health professions education (HPE) is challenged with delivering a universally relevant and locally responsive ethics and professionalism curricula. This symposium will explore how dominant paradigms in ethics education potentially marginalise diverse sociocultural values in the Global South. The objectives of the symposium are to:

- Examine the impact of colonial legacies and power dynamics on professional identity formation and ethics curricula.
- Critically analyse how ethics and professionalism are taught in a globalised HPE environment.
- Discuss strategies to contextualise and decolonise ethics education in diverse sociocultural Asian contexts.

The symposium will open by setting the stage for an engaging exploration of ethics and professionalism education in Asia. The first talk will provide a historical overview of ethics teaching, tracing its evolution from informal, experience-based learning to formal curricular inclusion. The second talk will highlight the prevailing content, methods, and challenges of ethics education in the Global South. The third presentation will unpack how colonial influences and knowledge hierarchies influence on what is taught in HPE worldwide.

The session will conclude with a moderated discussion, inviting speakers and participants to reflect on how ethics education can be decolonised to make it more inclusive and context-sensitive. The symposium will then close by identifying actionable strategies to promote ethics education that contribute to more equitable and sustainable healthcare systems globally.

SYMPOSIUM 3

Speaker 1:
Dr Wee-Ming Lau
Jeffrey Cheah School of Medicine and Health Sciences,
Monash University Malaysia

Presentation Synopsis

History of Teaching Ethics in the Asian Continent.

Asia is home to approximately 4.6 billion people, making up nearly 60% of the world's population. This vast and diverse continent is not only significant in terms of numbers but also rich in cultural, philosophical, and religious traditions. Among the many philosophical systems practiced in Asia are Buddhism, Confucianism, Daoism, and Hinduism, each offering unique perspectives on ethics, morality, and human behaviour. These philosophies have long influenced the way people live, think, and interact, shaping societal values and guiding ethical conduct in various spheres of life.

This presentation will explore the historical development, current status, and future prospects of ethics education across three distinct Asian countries— Malaysia, Pakistan and Philippines. The contemporary emphasis is on Western ethical principles, which include respect for autonomy, beneficence, non-maleficence, and distributive justice. While Western ethics have become dominant in modern health education, traditional Asian ethical systems still play a crucial role in shaping moral reasoning and professional conduct in the health sector. Can we integrate traditional Asian philosophies into the formal curricula of health professional education, particularly in relation to teaching ethics and professionalism?

By reflecting on the past, present, and future of ethics education in these countries, this presentation will emphasise the importance of understanding and integrating diverse cultural philosophies into global discussions about ethics, particularly in professional fields like healthcare, where ethical dilemmas are often complex and multifaceted.

Speaker 2:
Dr Pacifico Eric Eusebio Calderon
William H. Quasha Memorial
Philipines

Presentation Synopsis

Ethics and Professionalism in a Globalised HPE: Whose Values Matter?

The global North heavily influences health professions education around the world regarding what is taught, how it is taught, and what knowledge is valued. Colonial legacies in South and Southeast Asia have entrenched certain models and educational frameworks, often at the expense of indigenous knowledge and contextually relevant practices. For example,

traditional healing systems, which historically emphasised balance, holistic care, and social responsibility, and offered nuanced understandings of health, illness, and healing, are now largely marginalised and considered scientifically inferior. Similarly, bioethics education in the region often adopts Western frameworks. While these principles have global relevance, their rigid application across all societies can create ethical tensions. In many South and Southeast Asian contexts, where family- centered decision-making is the norm, prioritising individual autonomy without accounting for the central role of family and community in health decisions can conflict with cultural values and lead to ethical dilemmas in areas like informed consent and end-of-life care.

This talk challenges the prevailing paradigm and questions the power dynamics, proposing that decolonising health professions education requires recognising culturally embedded approaches

to ethics and professionalism. It focuses on integrating indigenous perspectives, challenging knowledge hierarchies, and fostering equitable North-South collaborations to create education systems that are inclusive, contextually relevant, and responsive to diverse populations.

Speaker 3:
Dr Muhammad Shahid Shamim
Aga Khan University, Karachi, Pakistan.

Presentation Synopsis

Current Scenario and the way forward for Ethics & Professionalism Education in the Global South.

Ethics and professionalism are core components of health professions education, yet their teaching varies significantly across different regions, particularly in the Global South. Emerging trends, including digital platforms, AI-driven ethical simulations, and interprofessional ethics training, add to the complex issue. This talk will explore the current trends, challenges, and innovations in ethics and professionalism education in medical and health sciences curricula across low- and middle-income countries (LMICs). The session will examine how ethics education is structured, including integrating traditional moral frameworks, competency-based curricula, and context-specific adaptations of global bioethical principles. It will highlight diverse teaching methodologies, from case-based learning and role-playing to experiential learning through community engagement. Additionally, the talk will address key challenges such as resource constraints, faculty training, cultural sensitivities, and the need for locally relevant ethical discourse. In conclusion, the session will provide insights into how the Global South can contribute to shaping a more inclusive and contextually relevant approach to ethics and professionalism education in health professions.

SYMPOSIUM 4A

Resilient Health Professions Education in a Globalized World: Strategies for Sustainability and Future Readiness

Day/Date : Saturday, 11 October 2025
Time : 3.05 pm - 4.05 pm
Venue : Mei Ling Young Auditorium 2, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Synopsis

In today's rapidly evolving global landscape, health professions education faces unprecedented challenges from technological disruptions and shifting healthcare demands to global crises such as pandemics and workforce shortages. This symposium, "Resilient Health Professions Education in a Globalized World: Strategies for Sustainability and Future Readiness," provides a dynamic forum to explore and implement innovative strategies that build resilience at every level of medical education. By uniting perspectives from educators, policymakers, and international health leaders, the symposium aims to transform challenges into opportunities for sustainable growth and excellence.

Participants will delve into transformative approaches that reimagine assessment practices, enhance the well-being of both students and educators, and foster adaptive leadership. The sessions address critical issues such as the mental health impacts of traditional high-stakes assessments, the benefits of collaborative and authentic evaluation methods, and the need for strategic, forward-thinking leadership to navigate global disruptions. Through a blend of empirical research, global case studies, and actionable strategies, this symposium equips attendees with the tools to create inclusive, resilient, and future-ready educational environments—ensuring that health professions education not only survives but thrives in a globalized world.

Speaker 1:

Professor Dr Saadia Sultana
Head of the Department of Gynae/Obs & Professor of Gynae/Obs IIMC, Riphah International University, Islamabad, Pakistan

Presentation Synopsis

From Surviving to Thriving: Fostering Student Well-being and Resilience through Innovative Assessment Strategies in Global Medical Education

This presentation underscores the imperative of prioritizing student well-being and resilience within assessment practices in a globalized medical education landscape. It critically examines

how traditional high-stakes assessments contribute to anxiety, burnout, and attrition—factors that compromise clinical competence. By reimagining assessment as a tool for empowerment rather than stress, the session delves into innovative strategies such as:

- Formative and Feedforward Assessments: Employing low-stakes, iterative feedback to nurture a growth mindset.
- Authentic Evaluation: Using real-world scenarios (e.g., OSCEs incorporating empathy metrics and reflective portfolios) to bridge theory and practice.
- Collaborative Models: Implementing peer- and team-based assessments that reduce isolation and build a supportive community.
- Flexible, Inclusive Design: Crafting culturally responsive assessments to meet diverse learner needs.
- Faculty Development & Technology Integration: Training educators in wellbeing-centered practices and leveraging AI-driven adaptive tools to personalize learning.

By transforming assessment practices to be compassionate and evidence-based, this session offers a roadmap for creating environments where students not only survive but truly thrive as resilient, empathetic practitioners.

Speaker 2:

Professor Dr Muhammad Nadeem Akbar Khan
Head of the Department of Pathology, Islamic International Medical College, Riphah International University, Islamabad, Pakistan

Presentation Synopsis

In today's rapidly evolving health education landscape, both educators and learners face unprecedented pressures that require robust resilience. This session explores innovative strategies to support faculty and students by enhancing emotional intelligence, mental well-being, and adaptability. It begins by examining the impact of globalization where cultural diversity, technological shifts, and increased workloads can lead to burnout and reduced professional efficacy. Key interventions include the integration of mindfulness programs, targeted mentorship initiatives, and comprehensive well-being policies that prioritize mental health.

The discussion emphasizes building a supportive institutional culture through psychological safety, open communication, and continuous professional growth. Attendees will discover how to foster collaborative communities of practice where peer support and shared experiences serve as buffers against stress. The session also highlights the importance of adaptive learning environments that not only address current challenges but also prepare educators and

SYMPOSIUM 4A

learners for future disruptions. By drawing on empirical research and global case studies, this presentation offers practical, evidence-based recommendations to create a sustainable, resilient educational ecosystem capable of thriving in the face of global uncertainties.

Speaker 3:

Professor Dr Fadil Citaku
CEO & Professor of Leadership and Emotional Intelligence,
Academy of Leadership Sciences Switzerland (ALSS), Switzerland

Presentation Synopsis

Resilience in Medical Education Leadership: Navigating Global Disruptions and Future Challenges

Effective leadership is the cornerstone of resilient medical education, especially in an era marked by global disruptions and rapid technological change. This session examines how leaders in health professions education can strategically navigate challenges such as policy shifts, resource constraints, and unforeseen crises while upholding educational excellence. The presentation discusses essential leadership competencies including strategic decision-making, crisis management, and adaptive planning—skills crucial for steering institutions through turbulent times.

Participants will explore how innovative leadership practices—such as collaborative governance, transparent communication, and inclusive decision-making—can cultivate a culture of resilience across academic and clinical settings. Best practices from global case studies will illustrate how institutions have implemented strategies that mitigate risk, foster faculty development, and promote sustainable growth. Emphasis is placed on continuous professional development and mentorship as means to nurture future leaders capable of anticipating and responding to emerging challenges. By integrating theoretical insights with practical examples, this talk provides a comprehensive framework for enhancing leadership resilience. Attendees will leave with actionable strategies adaptable to their own institutions, ensuring that leadership is both responsive to immediate crises and proactive in preparing for future disruptions.

SYMPOSIUM 4B

Global Strategies in Higher Education: Expanding Reach Through Transnational Collaboration

Day/Date : Saturday, 11 October 2025
Time : 3.05 pm - 4.05 pm
Venue : Mei Ling Young Auditorium 1, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Synopsis

This symposium explores Transnational Education (TNE) as a catalyst for global impact in health professions education, offering perspectives from leadership, institutional practice, and student experience.

The first presentation examines how higher education institutions can leverage TNE collaborations to expand global presence, safeguard academic quality, and build sustainable partnerships. The second highlights the IMU model, reflecting on three decades of collaboration with 22 international partners and sharing lessons on relationship-building, maintaining world-class standards, and sustaining value for students, faculty, and institutions. The final presentation offers the lived perspective of a junior doctor who navigated transnational training, highlighting both the opportunities—such as adaptability and cultural competence—and the challenges of studying across diverse contexts.

Together, these talks provide a comprehensive view of TNE, demonstrating how global strategies, institutional innovation, and learner pathways intersect to shape the future of health professions education.

Speaker 1:

Professor Kim Dale
Vice-Principal (Global Engagement)
Executive, University Executive and Strategy Office
University of Dundee, United Kingdom

Presentation Synopsis

Expanding Global Reach, Reputation, and Impact Through TNE Collaboration

As higher education institutions navigate an increasingly competitive and interconnected global landscape, Transnational Education (TNE) offers a strategic pathway to amplify international presence, enhance institutional reputation, and deliver meaningful global impact. Transnational Education (TNE) is no longer a peripheral strategy—it's a central pillar for

SYMPOSIUM 4B

institutions seeking global relevance, resilience, and recognition. I will explore how university leaders can harness TNE collaborations to drive sustainable growth, academic innovation, and cross-border influence.

Drawing on global trends, policy shifts, and successful case studies, the session will address:

- How to align TNE initiatives with institutional mission and strategic priorities
- Approaches to safeguarding academic quality and brand integrity across diverse contexts
- The role of TNE in building long-term partnerships and contributing to local capacity development
- Leadership strategies for navigating governance, risk, and resource allocation in international ventures

Designed for senior academic and executive leaders, this session offers a forward-looking framework for leveraging TNE as a catalyst for institutional transformation—turning global engagement into a core driver of excellence, equity, and impact.

Speaker 2:

Professor Ian Symonds
Deputy Vice Chancellor (Academic),
IMU University, Malaysia

Presentation Synopsis

Making Transnational Education a Reality: The IMU Experience

For more than 30 years IMU University has pioneered a unique model of Transnational Health Professions education. Starting in 1992 as the first private medical college in Malaysia we began a collaboration with partner universities in the UK to widen opportunities for access the medical training for Malaysians. Over the next three decades we expanded this to 22 partner medical schools as well as partnership programs in a range of other health professions from dentistry and pharmacy to business administration. We are now a 'gateway' to education for students not just from Malaysia but more then 40 different countries around the world and have more than 16000 alumni. Despite economic, political and public health crises the model has endured and the question is what has enabled IMU to do this and what lessons from our experience can we draw on for transnational collaboration in Higher Education.
As a former Dean of two of IMU partner Schools and now Deputy VC I believe that the success of the IMU model comprises 3 key elements. Firstly, the continuous cultivation of relationships with partner institutions. This requires persistence, and developing a sense of shared investment in the student outcomes. It means getting to know individuals by personal contact both at home and here in KL. Secondly, by maintaining the quality of our programs

so that these meet the highest world standards and remain at the forefront of innovation in education. Finally, by the ensuring that the value proposition for our partners, our faculty and most of all our students is maintained and agile enough to meet the needs of all three.

Speaker 3:

Dr Savithri Sathivelu
Resident Doctor,
Royal Free London NHS Trust, United Kingdom

Presentation Synopsis

From Student to Doctor: Navigating Global Pathways in HPE

This talk offers the perspective of a junior doctor who completed medical training across two institutions in different regions. It explores how exposure to varied health systems, curricula, and cultural contexts can provide significant benefits, including adaptability, cultural competence, and broader clinical insight. At the same time, it reflects on the challenges such pathways bring, from cultural adjustment to financial and logistical pressures and the complexities of navigating different academic and healthcare environments. Drawing on these lived experiences, the talk highlights both the value and the limitations of international mobility and transnational education in preparing early-career health professionals, while underscoring the need to place student and junior doctor voices at the center of shaping global HPE initiatives. knowledge, communication skills, positive attitudes, and the ability to be advocates and leaders. They need to understand systems thinking, transdisciplinarity and have the skills to co-create knowledge on diverse topics related to planetary and one health such as biodiversity, mass extinctions and the impact of widespread environmental contamination. Their skills should extend to implementation sciences to include reducing the carbon footprint of healthcare, transitioning to renewable energies and changes to methods of transportation and food systems especially in under-resourced settings requiring greater

SYMPOSIUM 5A

Artificial Intelligence in Global Health Professions Education: Strategies for Sustainable Integration

Day/Date : Sunday, 12 October 2025
Time : 10.45 am - 11.45 am
Venue : Mei Ling Young Auditorium 2, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Synopsis

Artificial Intelligence (AI) is revolutionizing health professions education (HPE), offering powerful tools to enhance learning, assessment, and professional training. However, AI's true impact depends on strategic integration, responsible governance, and long-term sustainability. This symposium delves into three critical dimensions of AI in global HPE: innovative applications, ethical stakeholder engagement, and strategies for enduring implementation.

The first talk, "Beyond Boundaries: Strategic AI Integration for a Globalised Health Professions Education," explores how AI-driven adaptive learning, predictive analytics, cross-border assessments, and virtual patient simulations are transforming medical training. With AI personalizing learning pathways and blockchain-powered global credentialing ensuring portability, the future of medical education is becoming more accessible, competency-based, and interconnected.

The second talk, "AI in Health Professions Education: Stakeholders at the Crossroads of Innovation and Responsibility," focuses on the key players shaping AI's role in medical education. Institutions must develop AI-ready curricula, policymakers must establish ethical governance, and technology companies must design AI tools that prioritize educational depth over commercial efficiency. This session highlights the importance of collaborative governance, academic-industry partnerships, and global standardization to ensure AI is deployed responsibly.

The final talk, "From Innovation to Implementation: Sustainable AI in Medical Education," addresses the long-term viability of AI adoption. It explores cost-effective AI models for LMICs, faculty AI literacy programs, and decentralized AI-driven learning repositories to bridge global educational disparities. Additionally, it considers AI's environmental footprint, introducing concepts such as green AI algorithms and energy-efficient cloud computing to ensure sustainability at both institutional and technological levels.

By addressing strategy, responsibility, and sustainability, this symposium aims to equip educators, policymakers, and institutions with the knowledge and tools to build an AI-enhanced, future-ready healthcare education system. It also provides a comprehensive roadmap for integrating AI in global medical education.

Speaker 1:

Dr Masood Jawaid

Pharm Evo, Pakistan Journal of Medical Sciences (PJMS), Pakistan

Presentation Synopsis

Beyond Boundaries: Strategic AI Integration for a Globalised Health Professions Education

This presentation explores how AI-driven adaptive learning, cross-border assessments, virtual simulations, and intelligent mentorship can create an interconnected future for medical training.

A breakthrough in AI-enhanced education is adaptive and predictive learning analytics, where AI not only personalizes content based on student performance but also predicts future learning gaps before they arise. By analyzing large amounts of data, AI can identify areas where students may struggle, helping educators step in early. This creates a continuous learning process, ensuring students retain and apply knowledge effectively over time.

Cross-border AI-enabled assessments are revolutionizing certification and licensing exams. AI-powered real-time skill assessment platforms using augmented reality (AR) and virtual patients allow students to demonstrate competency in clinical decision-making, procedural skills, and communication regardless of location. Additionally, blockchain-based AI credentialing systems can securely store and verify academic achievements across institutions, paving the way for globally recognized AI-powered certifications in medicine.

AI-driven virtual patient simulations are evolving into hyper-realistic digital twins AI-generated patient profiles that mimic real-world conditions, integrating medical histories, genetic data, and real-time case variations. These AI-driven patients can react dynamically to treatments, offering a lifelike, evolving clinical experience that enhances diagnostic reasoning and complex case management skills. AI-powered haptic feedback training further refines motor skills, allowing medical trainees to practice surgeries or emergency procedures in immersive, high-fidelity environments.

Beyond traditional applications, AI-driven global mentorship networks are emerging, where AI matches students with experts worldwide based on career goals, research interests, and clinical specialization. This AI-powered knowledge exchange fosters cross-cultural learning, research collaboration, and global competency standardization, ensuring that future healthcare professionals are well-prepared to work in diverse clinical settings.

By strategically integrating AI in medical education, institutions can democratize knowledge, enhance competency-based training, and future-proof the healthcare workforce.

SYMPOSIUM 5A

Speaker 2:

Professor Madiha Sajjad
Riphah International University, Pakistan

Presentation Synopsis

AI in Health Professions Education: Stakeholders at the Crossroads of Innovation and Responsibility

As Artificial Intelligence (AI) reshapes health professions education (HPE), a diverse network of stakeholders, including institutions, educators, policymakers, and tech developers—must navigate the intersection of innovation, ethics, and responsibility.

This presentation will explore the pivotal role of each stakeholder in ensuring AI's ethical and effective integration, addressing both opportunities and challenges in a rapidly evolving educational landscape.

Institutions and educators are at the forefront of AI adoption, responsible for integrating AI-driven tools such as adaptive learning platforms, virtual simulations, and automated assessments into curricula. While these innovations promise personalized, data-driven education, they also raise concerns about faculty training, academic integrity, and AI-driven biases in learning outcomes. How can institutions maintain human oversight and ensure AI enhances, rather than replaces, the educator's role?

Policymakers and accrediting bodies play a crucial role in setting regulations and ethical guidelines to govern AI's use in HPE. They must balance innovation with accountability, ensuring AI-driven assessments meet accreditation standards while addressing concerns about data privacy, security, and fairness. The challenge lies in harmonizing regulations across different regions, particularly for cross-border AI-enabled certification and licensing.

Tech companies and AI developers, as key stakeholders, drive AI advancements but must collaborate with educators to create tools that are pedagogically sound and aligned with learning objectives. The risk of profit-driven AI solutions that prioritize efficiency over educational depth remains a major concern. Industry-academia partnerships are essential in ensuring that AI tools are evidence-based, ethical, and aligned with the evolving needs of medical education.

This presentation will discuss how a collaborative governance framework can ensure AI's responsible integration in medical education.

Speaker 3:

Professor Rehan Ahmed Khan
Dean of the Institute of Assessment, Director of Medical Education, Riphah International University, Pakistan

Presentation Synopsis

From Innovation to Implementation: Sustainable AI in Medical Education

While AI has demonstrated its potential to revolutionize teaching, assessment, and clinical training, the focus must now shift from innovation to implementation, ensuring that AI-driven advancements are scalable, cost-effective, and ethically sustainable, both in terms of infrastructure and long-term impact. This presentation will explore the key factors that determine AI's long-term viability in health professions education (HPE), focusing on infrastructure, governance, workforce adaptability, and environmental considerations.

One major challenge in AI sustainability is technological and financial accessibility. Many AI-based tools are developed with high-resource settings in mind, leaving low- and middle-income countries (LMICs) at a disadvantage. Sustainable AI in education requires the development of lightweight AI models, open-access platforms, and affordable, decentralized AI infrastructures that reduce reliance on expensive cloud computing. Additionally, AI-driven learning repositories, hosted on decentralized networks, can ensure medical knowledge remains accessible even in low-connectivity regions.

Beyond affordability, the long-term success of AI in HPE depends on faculty and institutional adaptability. While AI can automate many aspects of learning, educators must be trained to work alongside AI, ensuring that AI supports rather than replaces human instruction. AI-literacy programs for educators and interdisciplinary AI governance boards can help institutions develop ethical, evidence-based AI policies tailored to their unique educational needs.

Another often-overlooked aspect of sustainability is AI's environmental impact. AI algorithms require significant computing power, leading to high energy consumption and carbon footprints. This talk will discuss emerging solutions such as green AI algorithms, which optimize efficiency while minimizing computational waste, and cloud-based AI models powered by renewable energy, reducing AI's environmental burden.

This talk will outline practical strategies for sustainable AI implementation, including policy frameworks, investment in green AI, faculty adaptation, and equitable infrastructure development.

SYMPOSIUM 5B

Precision Learning in Medicine: AI-Driven Spaced Repetition and Adaptive Mastery

Day/Date : Sunday, 12 October 2025
Time : 10.45 am - 11.45 am
Venue : Mei Ling Young Auditorium 1, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Synopsis

Medical education is evolving, and traditional one-size-fits-all approaches are becoming obsolete. Precision Learning in Medicine leverages AI to personalize learning, optimize spaced repetition, and enhance mastery through adaptive strategies. This talk explores how AI-driven learning platforms use retrieval-based learning, spaced repetition, and cognitive analytics to tailor educational content to individual needs.

AI-powered algorithms predict students' forgetting curves and provide just-in-time reinforcement, ensuring knowledge retention and clinical competency. By integrating machine learning, neurocognitive science, and big data, AI can dynamically adjust question difficulty, content delivery, and remediation strategies, making learning efficient and evidence based.

Moreover, precision education aligns medical training with individual learning speeds, strengths, and weaknesses. Tools such as smart flashcards, AI-powered tutors, and adaptive question banks allow students to focus on weak areas while reinforcing well-retained knowledge.

This talk will highlight the science behind retrieval-based learning, showcase AI-driven applications in medical education, and discuss the ethical considerations of using AI in assessments. Attendees will leave with a deeper understanding of how AI transforms lifelong learning in medicine, ensuring future doctors stay competent in a rapidly evolving healthcare landscape

Speaker 1:

Professor Abida Shaheen
Shifa Tameer-e-Millat University, Islamabad, Pakistan

Presentation Synopsis

Neuroplasticity Meets AI: The Future of Cognitive Learning in Medicine

Medical students often struggle with information overload, leading to poor long-term retention. Meta-cognition, spaced repetition, and retrieval-based learning offer solutions

by aligning medical education with how the brain learns best. This session will delve into meta-cognition the ability to regulate one's learning process and how AI-powered platforms enhance this skill.

We will explore the science behind spaced repetition, explaining why revisiting information at strategic intervals strengthens memory. AI-driven systems predict forgetting curves and personalize revision schedules, ensuring high-yield retention. Additionally, retrieval-based learning, where active recall strengthens neural connections, will be discussed.

AI tools such as adaptive quizzes, smart flashcards, and cognitive analytics will be demonstrated to show their impact on medical training, clinical reasoning, and exam performance. This talk will provide a roadmap for educators and students on how to integrate AI-driven meta-cognition and memory optimization into medical education.

Speaker 2:

Professor Dr Fahad Azam
Shifa Tameer-e-Millat University, Islamabad, Pakistan

Presentation Synopsis

The AI-Powered Classroom: Redefining Medical Training

AI is transforming medical education by enabling precision learning, tailoring content delivery to individual learners based on performance, engagement, and cognitive strengths. This session will explore the technological foundations of AI-driven education, focusing on machine learning algorithms, learning analytics, and adaptive learning platforms.

Key technologies such as natural language processing (NLP), reinforcement learning, and neural networks will be explained in the context of personalized learning. Attendees will discover how AI-powered systems analyze students' interaction patterns to predict learning needs and dynamically adjust study materials.

This talk will also showcase real-world AI-driven tools like adaptive question banks, automated tutors, virtual patient simulations, and intelligent feedback systems. We will discuss how AI enhances assessments, providing real-time performance analytics and automated grading for competency-based learning.

The session will end with a discussion on the future of AI in medical education, exploring challenges, opportunities, and how AI can be ethically integrated into curricula.

SYMPOSIUM 5B

Speaker 3:

Professor Dr Mohammad Iqbal Khan
Shifa Tameer-e-Millat University, Islamabad, Pakistan

Presentation Synopsis

Precision with Principles: Ethical use of AI tools for Precision Medical Education

As AI transforms medical education, ethical concerns surrounding fairness, bias, privacy, and dependency emerge. This session will explore the ethical implications of AI-driven learning and assessment, addressing key questions: Who controls the algorithms? How do we ensure unbiased AI? Can AI replace human educators?

AI-driven learning systems rely on big data and predictive analytics, raising concerns about student privacy and data security. Moreover, biased datasets can lead to educational inequities, where AI favors certain learning styles or backgrounds. This talk will also discuss the risk of over-reliance on AI, potentially diminishing critical thinking and decision-making skills.

We will examine strategies to make AI-driven education ethical, transparent, and student-centered, ensuring it supports not replaces human educators. Finally, we will discuss regulatory frameworks and ethical guidelines for implementing AI in medical curricula.

SYMPOSIUM 6A

Sustaining Faculty Excellence in Globalization of Health Professions Education

Day/Date : Saturday, 11 October 2025
Time : 3.05 pm - 4.05 pm
Venue : Mei Ling Young Auditorium 2, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Synopsis

Faculty development is pivotal for advancing Health Professions Education in a globalized world. The rapid pace of globalization necessitates continuous faculty development to keep up with international standards and innovations. This involves integrating contemporary pedagogical approaches, fostering global collaborations, and leveraging technological advancements. The symposium aims to provide a comprehensive framework for enhancing faculty development through effective stakeholder engagement, building global competence, fostering resilience and adaptability, and ensuring sustainable growth. The symposium aspires to contribute to the overall quality and sustainability of health professions education in a globalized context by addressing these key areas. The discussion will highlight designing a faculty development programs that ensure sustainability by considering social, economic, and environmental dimensions. The first talk will emphasize the critical role of stakeholder engagement in faculty development. By examining collaborative efforts across institutions and sectors, participants will learn how to enhance professional development programs through effective partnerships, open communication, and mutual benefits. The second talk will focus on building global competence among faculty members. It will explore strategies for professional development that prepare educators to address global health challenges and integrate diverse perspectives into their teaching. By highlighting the importance of cross-cultural communication skills, inclusive teaching practices, and international partnerships, this session aims to create a globally competent and culturally responsive faculty, essential for the sustainability of HPE. The third talk will address the importance of resilience and adaptability in faculty development. Participants will learn strategies for managing stress, fostering lifelong learning, and maintaining professional growth in a rapidly evolving educational landscape. The talk will also cover the development of soft skills, emotional intelligence, and coping mechanisms necessary for navigating global challenges, with lessons from the globalization era integrated into faculty development initiatives. .

SYMPOSIUM 6A

Speaker 1:

Professor Dr Rahila Yasmeen
Dean Riphah Academy of Research and Education-(RARE),
Riphah International University, Islamabad, Pakistan

Presentation Synopsis

Beyond Border Excellence: Strategies to engage Stakeholders through innovative Faculty Development

This talk will focus on the pivotal role of stakeholder engagement in the continuous professional development of faculty members. It will delve into how collaborative efforts, spanning various institutions and sectors, can significantly enhance the quality and impact of faculty development programs. The session will explore a range of strategies designed to build effective and sustainable partnerships, foster open and transparent communication, and ensure mutual benefits for faculty members and their stakeholders. The talk aims to provide attendees practical insights and actionable steps to create and sustain successful, innovative faculty development initiatives by integrating real-world examples and case studies. This includes understanding the dynamics of stakeholder relationships, identifying common goals, and leveraging shared resources to achieve a more significant impact. Additionally, the session will highlight the importance of cultural competence and global perspectives in shaping these initiatives, ensuring they are inclusive and adaptable to diverse contexts. Ultimately, the talk aspires to contribute to Health Professions Education's overall success and sustainability (HPE) in an increasingly globalized environment. It emphasizes that robust stakeholder engagement is a cornerstone of effective and enduring faculty development. This approach benefits individual educators and strengthens the broader educational ecosystem.

Speaker 2:

Professor Dr Shabana Ali
Assistant Dean RARE/ORIC,
Riphah International University, Islamabad, Pakistan

Presentation Synopsis

Building Global Competence: Faculty Development Strategies for an Interconnected World

Building Global Competence: Faculty Development Strategies for an Interconnected WorldIn the evolving landscape of Health Professions Education, resilience and adaptability are essential competencies for faculty members striving to meet the demands of an increasingly

globalized environment. Faculty members must continuously adjust to new educational challenges, technological advancements, and diverse learner needs while maintaining professional well-being. This talk will explore the importance of building global competence among faculty members to meet an interconnected world's diverse and evolving demands. The session will highlight effective strategies for professional development that prepare educators to tackle global health challenges and integrate diverse perspectives into their teaching practices. By focusing on the role of cultural competence, the talk will provide practical recommendations for enhancing cross-cultural communication skills and fostering inclusive teaching methodologies. Additionally, the session will emphasize the significance of leveraging global partnerships to facilitate knowledge exchange and collaborative efforts. Participants will gain valuable insights into creating and maintaining a globally competent and culturally responsive faculty, which is essential for the long-term sustainability and success of Health Professions Education in a globalized context.

Speaker 3:

Professor Dr Muhammad Saiful Bahri Yusoff
Professor of Medical Education,
Faculty of Medicine and Health Sciences,
Universiti Putra Malaysia, Serdang, Selangor.

Presentation Synopsis

Sustainable Growth: Long-term Faculty Development in a Global Context

This talk will address the importance of sustainable growth in long-term faculty development within a global context. It will explore how faculty development programs can be meticulously designed to ensure long-term sustainability, considering social, economic, and environmental dimensions. The session will discuss emerging trends in faculty development, the integration of sustainability principles, and the profound impact of globalization on contemporary educational practices. Participants will gain insights into innovative strategies for fostering sustainable growth and ensuring the long-term success of faculty development initiatives. The discussion will cover a range of topics including the role of technology in promoting sustainability, and the importance of creating an inclusive and supportive environment for faculty members. Additionally, the session will highlight case studies and real- world examples of successful faculty development programs that have effectively integrated sustainability principles. By focusing on these aspects, the talk aims to provide participants with practical recommendations and actionable steps to implement sustainable practices in their own institutions. Ultimately, the goal is to contribute to the overall quality and sustainability of health professions education globally, ensuring that faculty members are well-equipped to meet the challenges and opportunities of a rapidly evolving educational landscape.

SYMPOSIUM 6B

Opportunities, challenges, and future directions of health professions education research on a global scale

Day/Date : Saturday, 11 October 2025
Time : 3.05 pm - 4.05 pm
Venue : Mei Ling Young Auditorium 1, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Synopsis

Health professions education research is defined as the systematic investigation into topics related to teaching and learning in the health professions, with the aim of reporting results and conclusions derived from that inquiry. This research plays a critical role in the professional growth of faculty and is often a key component of promotion and tenure processes.

In today's interconnected world, educational research increasingly crosses institutional and national borders, fostering global collaboration among researchers. These international partnerships drive successful research, yet its long-term success relies on addressing ethical, social, and environmental challenges. Sustainable collaboration requires careful attention to issues such as cultural sensitivity, equity, and the responsible use of resources.

In this symposium, speakers will explore emerging challenges and new developments in health professions education research. They will also discuss strategies to prepare our current students for their roles in shaping the future of global health professions education research.

Speaker 1:

Dr Peter GM de Jong
President International Association of Medical Science Educators (IAMSE)
Senior Advisor/Researcher,
Center for Innovation in Medical Education, Leiden University Medical Center,
The Netherlands

Presentation Synopsis

The Evolution of Global Collaborative Research in Health Professions Education and its current Challenges

Traditionally, scholarly research projects were developed and conducted within a scholar's local institution and cultural context, with inter-institutional—and especially international—collaborations being rare. However, the advent of modern communication technologies, such as email and videoconferencing, has transformed the research landscape. These tools enable

scholars to connect with peers worldwide and initiate cross-border collaborative projects, supported by digital platforms that facilitate both global data sharing and remote teamwork.

Today, researchers can disseminate their findings globally through online journals and international conferences, expanding the reach and impact of their work. However, these new opportunities come with significant challenges. Issues such as resource inequities, cultural differences, language barriers, and ethical considerations regarding fair credit and meaningful involvement for all contributors have become increasingly relevant. Additionally, data sovereignty and the need to comply with local data protection laws present complex challenges in the management of international research collaborations.

In this presentation, Dr. de Jong will provide a comprehensive overview of the key drivers shaping global research collaborations and discuss emerging challenges and best practices for navigating this evolving landscape.

Speaker 2:

Associate Professor Chen Zhi Xiong
Yong Loo Lin School of Medicine,
National University of Singapore,
Singapore.

Presentation Synopsis

Integration of Generative AI in Faculty Development

With the advent of generative AI (GAI), it is crucial to highlight the use of GAI in teaching, learning and assessment through faculty development. It is equally crucial to incorporate the use of GAI in faculty development itself. In teaching and learning, educators must be adept and up-to-date with using GAI to create content, foster curiosity and improve course quality. Educators must also be familiar with the best practices and pitfalls associated with GAI-assisted assessment and feedback. In the same vein, educators involved in designing and delivering faculty development programs can role-model the use of GAI by experimenting with its use in facilitating these programs. The aim of the talk is to spark ideas and promote further discussion in these areas..

SYMPOSIUM 6B

Speaker 3:

Professor Rina Masadah
Faculty of Medicine,
Hasanuddin University, Makassar, Indonesia

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Presentation Synopsis

Preparing Medical Students for the Future Through Medical Research Education: Master Medical Education at Hasanuddin University

In the ever-evolving medical field, medical students are not only required to master a medical theory and clinical skills but also important to have a deep understanding of medical research. Education in research is an essential part for a doctors to be a critical thinkers, innovative, and capable to contribute in medical development.

Preparing medical students through research education involves various aspects, such as understanding research methodology, data analysis, and scientific publication. Students who actively engage in research will be better prepared to face future medical challenges and adapt more easily to innovations developments in healthcare. Educating medical students in research is not merely an investment in education but also a strategic step in developing highly qualified, innovative medical professionals who are ready to face the dynamic future of healthcare.

Master Medical Education program in Faculty of Medicine Hasanuddin University implemented a research education through a research-based curriculum, training in scientific methodologies, and mentorship from senior academics and researchers. Students are given a mentoring about research methodology in their first semester, choose a trending topic and deliver a research proposal in second semester. Mentoring was provide regularly by a team consist of a Head supervisor and assistant supervisor during the research process. Students presented their results in the fourth semester as well as final examination.

With this approach, medical students will be more prepared to tackle global health challenges and become professionals who contribute not only to clinical practice but also to the advancement of medical science.

WHAT EXPERT SAYS

WES 1

Leading/Shaping the Future of Health Professions Education: Global Challenges and Strategic Solutions

Day/Date : Saturday, 11 October 2025
Time : 11.50 am - 12.50 pm
Venue : Mei Ling Young Auditorium 1, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Speaker 1:
Dr Mai Salah Yousuf Sater
Chairperson, Department of Biochemistry; Associate Professor & Supervisor of Academic Chairs, Arabian Gulf University (AGU), Bahrain.

Presentation Synopsis

Stakeholder Engagement: Connecting the Dots in Globalizing Higher Education and Health Professions Education

This session highlights stakeholder engagement as the foundation of sustainable globalization in higher education and health professions education. Drawing on AGU's GCC-wide experience, it demonstrates how students, faculty, governments, employers, communities, and patients can co-create education that is globally credible, regionally relevant, and socially accountable.

Globalization in higher education and health professions education is often described in terms of standards, mobility, and technology. Yet one essential dimension remains underexplored: stakeholder engagement. Without the active participation of students, faculty, governments, employers, communities, and patients, globalization risks becoming a top-down exercise vigorous on paper but weak in practice.

This talk frames stakeholder engagement as the "line that connects the dots" in globalization, transforming scattered initiatives into coherent, sustainable systems of education. Drawing on the experience of Arabian Gulf University (AGU), a regional university serving six Gulf Cooperation Council (GCC) states, it highlights how regional institutions can act as bridges between global standards (WFME, ACCM, NCAAA) and local workforce and societal needs.

Examples from AGU include:

- Students & Faculty: The Quality Voices initiative empowering learners and teachers as co-creators of quality.
- Governments & Employers: Benchmarking projects with ministries and regional partners to align education with workforce priorities.
- Communities & Patients: Integrating social accountability by embedding community voices

WES 1

into professionalism and ethics curricula.

The session concludes with three lessons: globalization must be needs-driven, regional universities are essential connectors, and stakeholder engagement is not consultation but true partnership.

Key message: For globalization in higher education and health professions education to be sustainable, it must be done with stakeholders, not for them

Speaker 2:

Professor Mahwish Arooj
Principal, Director Department of Medical Education,
Professor of Physiology,
University College of Medicine & Dentistry, University of Lahore,
Pakistan

Presentation Synopsis

Globalizing Equity in Health Professions Education: From Awareness to Action through Educator Capacity Building.

IIn an age of accelerated globalization, health professions education (HPE) must transcend borders—not only in curricula and student mobility but in ensuring equity, diversity, and inclusion (EDI) are embedded in its core structures. Despite growing internationalization, persistent gender, racial and sociocultural disparities in access, recognition, and progression remain underaddressed. Educators, those who shape how and what is taught, are uniquely positioned as change agents. Yet many lack the capacity to recognize implicit bias, design inclusive pedagogy, or lead institutional transformation.

This presentation introduces a structured and scalable framework—Awareness → Sensitization → Action → Sustainability—to guide educators from passive bystanders to active advocates of equity. Drawing on cross-national case vignettes, it will highlight both successes and challenges in implementing EDI-focused educator training across diverse cultural and resource contexts.

This will also address how global stakeholder engagement including governments, regulatory bodies, accreditation agencies, donor agencies, and civil society, etc. can support scalability, legitimacy, and sustainability of these interventions.

By the end of the session, participants will appreciate that achieving equity in globalized HPE is not a side goal, but a strategic imperative: one that requires equipping educators, mobilizing stakeholders, and designing systems resilient to backlash and inequity. It contends that sustainable globalization of health professions education demands that inclusion be built in,

not added on—with educators leading the transformation from awareness to action in local, national, and transnational settings.

Speaker3:

Professor Yawar Hayat Khan
Deputy Vice Chancellor (Academics)
Riphah International University, Islamabad,
Pakistan

Presentation Synopsis

Treating Sick Organizations; Leaders As Healers

In modern day higher education systems, thinking of Leaders as healers suggests that organizations, like living systems can become sick due to multiple reasons including stress, dysfunction, toxicity, incompetence and lack of communication between the stakeholders.

Leaders have a definitive role in restoring the health of the organization. Just as doctors listens to the patients and run tests, leaders must recognize the symptoms of dysfunction, diagnose the challenges and reasons for it and prescribe the cure. Good leaders don't just cure after crisis instead build immunity against future systems.

A few examples of leaders as healers include Satya Nadella (Microsoft) who shifted the culture from a combative know-it-all environment to a collaborative, learn-it-all culture healing morale and sparkling innovation. Howard Schultz (Starbucks) returned as CEO when the culture weakened, restoring focus on employees and values to heal the brand. Jacinda Arden (EX PM New Zealand) lead with empathy during crisis, showing that healing leadership is about compassion as much as action.

There are different kind of leaders and in organizations the most effective are the ones who not only focus on empowering staff members but also share their vision with their teams. They care about their employees, hence increase productivity and enhance performance. They restore dignity, revive momentum & renew meaning and when organizations heal people inside them too.

In a nutshell, leaders as healers see organizations as human communities rather than machines. They diagnose pain, treat the root causes and create environments where people can strive. They are the ones called effective Transformative leaders.

WES 2

Building Stronger Health Education Systems Across Borders

Day/Date : Saturday, 11 October 2025
Time : 2.00 pm - 3.00 pm
Venue : Mei Ling Young Auditorium 1, Level 4, IMU University Bukit Jalil, Kuala Lumpur

Speaker 1:
Professor Ismail Matalka
President,
Ras Al Khaimah Medical & Health Sciences University, United Arab Emirates

Presentation Synopsis

Empowering Future Generations: The Role of Education and Research in Mitigating Climate Change Health Impacts in the Arab Region

Climate change in the Arab region is driving a substantial escalation in health burdens, including heat-related morbidity and mortality, expanding vector-borne and water-borne diseases, undernutrition, respiratory conditions, and mental health disorders. The frequency and intensity of extreme heat events are increasing, with projections indicating significant excess deaths and illnesses if unmitigated. Water scarcity and disruptions to food systems exacerbate malnutrition and food insecurity, particularly among vulnerable populations. Dust storms and deteriorating air quality contribute to rising incidences of respiratory and cardiovascular diseases across urban and rural communities. Heat extremes also diminish workforce productivity and economic resilience, with estimates of billions of working hours lost annually.

Higher education institutions can play a pivotal role in addressing these multifaceted challenges through interdisciplinary research, curriculum innovations, and community engagement. By integrating climate change education and embedding the Sustainable Development Goals into academic frameworks and governance, universities can equip graduates with essential knowledge, skills, and values for climate-resilient health systems. Strategic research priorities should encompass vulnerability assessments, adaptation interventions, early warning systems, and health impact modeling, creating robust evidence to inform policy and practice.

Engaging youth through leadership programs, citizen science initiatives, and digital platforms empowers emerging professionals to co-create resilient solutions and drive social mobilization. Mentorship and capacity-building schemes further cultivate competencies in climate epidemiology, environmental health, and policy advocacy. Institutions such as RAKMHSU, through regional collaborations and evidence-based strategies, can reinforce the nexus of health, education, and sustainability, championing health equity and resilience across the Arab region.

Holistic partnerships with government agencies, non-governmental organizations, and international bodies can amplify impact, driving policy reforms and resource mobilization for sustainable adaptation and mitigation strategies in health and higher education sectors. Investing in faculty development, infrastructure, and interdisciplinary centers will sustain momentum and foster innovation to protect public health against a changing climate.

Speaker 2:

Dr Rana Abdel Malak
Surveyor/Consultant, Global Healthcare Accreditation® (GHA), Lebanon

Presentation Synopsis

Pillars of Excellence: Building Resilient Health Education Systems Across Borders

Building stronger health education systems across borders requires a comprehensive commitment to the pillars of excellence that underpin high-quality, sustainable, and impactful healthcare education globally. This session explores these fundamental pillars—clinical and academic excellence, leadership and governance, research and innovation, interprofession-al collaboration, quality assurance and accreditation, and technology integration including AI and advanced digital tools. Emphasizing the need for harmonized standards and culturally competent approaches, the session will highlight strategies to leverage these pillars in cross-border collaborations and partnerships. Participants will gain insights into overcoming challenges related to accreditation variability, resource disparities, and technological integration. By integrating these pillars of excellence at levels from boardroom to the classroom, health education systems can build resilient, adaptive, and future-ready workforces to meet global health challenges.

WES 2

Speaker 3:

Professor Hassan Al Zahrani

Assistant Professor of Surgery, Head of the Department of Medical Education, College of Medicine, King Khalid University, Saudi Arabia

Presentation Synopsis

We aim to explore the significance of building stronger health education systems across borders through collaborative initiatives and shared resources. Various organizations, such as the World Federation for Medical Education (WFME) and the Global Health Education Consortium (GHEC), promote international standards and best practices in medical training. Platforms like MedEdPORTAL facilitate the dissemination of innovative teaching materials, while associations such as the Association of American Medical Colleges (AAMC) and the European Association for Medical Education (AMEE) foster partnerships among institutions to enhance curriculum development and faculty training.

Despite these advancements, several challenges hinder the implementation of collaborative health education programs. Cultural differences, resource disparities, and regulatory barriers complicate partnerships, while language differences can hinder effective communication. Additionally, aligning curricula, ensuring sustainability, and providing adequate faculty training pose significant obstacles. Political and economic instability in partner countries further disrupt efforts, and developing effective evaluation metrics adds complexity. By addressing these challenges through cross-border collaboration and equitable resource sharing, these initiatives aim to strengthen health education systems and improve global health outcomes.

COURSES

COURSE 1

Leadership and Emotional Intelligence Competencies for Healthcare Professionals; its impact on Globalization

Day/Date : Thursday, 9 October 2025
Time : 9.00 am - 5.00 pm
Venue : 1.12.08, Level 1, IMU Bukit Jalil

Facilitators:

Professor Fadil Citaku
CEO & Professor of Leadership and Emotional Intelligence,
Academy of Leadership Sciences Switzerland (ALSS), Switzerland.

Professor Yawar Hayat Khan
Deputy Vice Chancellor (Academics),
Riphah International University, Islamabad, Pakistan.

Professor Rahila Yasmeen
Dean Riphah Academy of Research and Education-(RARE),
Riphah International University, Islamabad, Pakistan.

Synopsis

Leadership is crucial for health care providers & educators because it enables them to effectively guide, influence, and inspire both individuals and communities toward healthier behaviours and improved public health outcomes. Overall, the course goal is to produce organizational leaders at all levels within the health professions by training them to become change agents who can bring organizational & educational reforms by demonstrating the attributes of effective leadership and inspire others to develop followers.

Course Learning Outcome

At the end of the course, participants would be able to:

- Demonstrate the attributes of an effective Leader in organization.
- Understand different types of Leadership & styles and identify one's own style.
- Discuss the Leadership competencies in one's own context and culture and Neuroleadership

- Understand and apply the principles of goal setting & teamwork in strategic thinking and decision making in leadership.
- Apply the principles and concepts of Emotional Intelligence and Assertiveness in Leadership.

Sessions Outline:

1. Attribute of an effective leader
2. Types of leaderships styles
3. Leadership competencies and Neuroleadership
4. Role of goal setting & teamwork in Leadership
5. Strategic thinking and decision making in leadership
6. Emotional intelligence and Assertiveness in leadership

Uniqueness and Value Driven

This course can benefit health care professionals who want to demonstrate the leadership qualities in their organizations and take lead in generating innovations, brining reforms with change and building teams and followers.

COURSE 2

Artificial Intelligence in Medical Education

Day/Date : Thursday, 9 October 2025
Time : 9.00 am - 5.00 pm
Venue : CE Training Centre, Level 2, IMU Bukit Jalil

Facilitators:

Professor Rehan Ahmed Khan
Dean of the Institute of Assessment, Director of Medical Education, Riphah International University, Pakistan.

Dr Masood Jawaid
Pharm Evo, Pakistan Journal of Medical Sciences (PJMS), Pakistan.

Professor Nilesh Kumar Mitra
Professor of Anatomy, School of Medicine, IMU University, Malaysia.

Synopsis

With AI transforming the educational landscape, this course aims to equip health professions educators with practical skills and theoretical grounding to integrate AI effectively into curriculum, teaching, and assessment. Targeted at faculty members, academic leaders, and instructional designers, the course bridges the gap between emerging technologies and educational needs in health sciences.

Course Learning Outcome

At the end of the course, participants would be able to:

- Describe core AI concepts relevant to medical education
- Identify applications of AI in curriculum, teaching, and assessment
- Evaluate ethical considerations and limitations of AI tools
- Apply selected AI tools to improve learner engagement assessment and academic productivity
- Strategize for institutional adoption of AI in educational settings

Sessions Outline (Topic)

1. Introduction to AI: What Educators Need to Know
2. AI in Curriculum Design and Personalised Learning
3. AI for Assessment: From MCQs to Reflective Assignments
4. Ethical and Governance Issues in AI Integration
5. Demonstration of AI Tools for Educators
6. Roadmap for Institutional Integration of AI

Uniqueness and Value Driven

This course offers a rare blend of conceptual clarity and hands-on experience with AI tools tailored specifically for medical educators. Unlike generic AI courses, this programme contextualizes every topic within health professions education, ensuring relevance and practicality. It is delivered by internationally recognized leaders in medical education and digital transformation who bring real-world insights and tested strategies. The hybrid format ensures flexibility while preserving interactive engagement. Participants will not only learn about AI but also use AI tools during the course, receiving guided feedback and creating outputs they can take back to their institutions. By using AI and aligning it with educational principles, this course empowers educators to become leaders of innovation, ready to shape the future of medical education.

PRE-CONFERENCE WORKSHOP

PCW 1

It takes a Village: Co-Creating the Next Generation of Health Professions Education

Day/Date : Friday, 10 October 2025
Time : 9.00 am - 12.00 pm
Venue : 1.12.02, Level 1, IMU Bukit Jalil

Facilitators:

Dr Mashaal Sabqat
Assistant Professor Medical Education Islamic International Medical College
Assistant Director Riphah Institute of Assessment Riphah International University, Islamabad, Pakistan

Dr Noorul Ain
Assistant Professor Medical education department IIMC and
Assistant Director Riphah Institute of Assessment, Riphah International University, Islamabad, Pakistan

Dr Sana Iqbal
Assistant Professor Dental Education
Islamic International Dental College, Islamabad, Pakistan

Synopsis

The globalization of healthcare education demands inclusive, collaborative, and sustainable approaches to curriculum development and institutional reform. Co-creation is the process of actively involving multiple stakeholders, including students, faculty, healthcare professionals, policymakers, and community members to develop curricula and teaching programs. Co-Creation has emerged as a powerful strategy to ensure that medical education is responsive, innovative, and globally relevant.

This workshop will discuss the role of different stakeholders, and the value of including multiple perspectives in designing educational programs. It will also explore how co-creation inculcates shared ownership, cultural adaptability, and sustainability in health professions education. We will examine successful international case studies, engage in hands-on design activities, and simulate real-world stakeholder collaboration. The participants will gain practical skills in co-creating educational frameworks that meet the evolving needs of learners and healthcare systems.

One inspiring example of co-creation in medical education is the Problem-Based Learning (PBL) curriculum reform at Maastricht University in the Netherlands, where students, educators, and policymakers jointly developed a student-centered, competency-based curriculum. Similar stakeholder-driven reforms have been implemented in Uganda, Canada, and Brazil, where interdisciplinary collaboration has strengthened medical training for diverse and under-resourced settings.

This will be an interactive, solution-oriented workshop in which participants will learn how to design, implement, and sustain co-creative practices that can be adapted to their own institutions

Workshop Learning Outcome

At the end of the workshop, participants would be able to:

- Discuss co-creation and its role in globalized health professions education.
- Identify key stakeholders and their contributions to sustainable educational reforms.
- Apply co-creation methods to curriculum development
- Develop an action plan to implement co-creation strategies at their institutions.

Uniqueness and Value Driven

This workshop will offer a hands-on experience of co-creation through a multi-disciplinary, participatory approach. Co-creation is a novel, transformative approach to curriculum development and educational reform. The participants will leave with a tangible action plan and skills to lead co-creation in their own institutional/ educational settings.

PCW 2

Strengthening Cultural Intelligence in Educators and Students to Build One Health Education

Day/Date : Friday, 10 October 2025
Time : 9.00 am - 12.00 pm
Venue : 1.12.03, Level 1, IMU Bukit Jalil

Facilitators:

Associate Professor Kye Mon Min Swe
Associate Professor (Education Research), Newcastle University Medicine Malaysia, Malaysia

Dr Nurul Iman Binti Abdul Jalil
Assistant Professor, Department of Psychology and Counselling, Faculty of Art and Social Science, Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia

Synopsis

This workshop on strengthening cultural intelligence among students is essential for preparing future healthcare professionals to thrive in a diverse and interconnected environment. By focusing on the integration of cultural intelligence into the One Health educational framework, we can enhance students' competencies and promote inclusive practices that benefit the wider community. We believe this initiative will not only empower students but also foster a collaborative approach to tackling the complex health challenges of today and the future.

Workshop Learning Outcome

At the end of the workshop, participants would be able to:

- To define cultural intelligence and its relevance to medical education and One Health principles.
- To explore strategies to develop cultural intelligence among students, enhancing their ability to engage with diverse populations.
- To discuss the role of cultural competence in addressing global health challenges.
- To provide practical tools and resources for integrating cultural intelligence into the medical curriculum.

Uniqueness and Value Driven

In today's interconnected world, health professionals face unique challenges that require them to work collaboratively across various sectors, including human, animal, and environmental health. Embracing the One Health approach fosters an understanding that the health of people is closely connected to the health of animals and the environment. As medical education evolves, it is crucial to enhance students' cultural intelligence, enabling them to navigate diverse cultural contexts effectively. This workshop aims to equip medical educators with the skills necessary to thrive in a diverse healthcare landscape while promoting the principles of One Health.

PCW 3

Faculty Development in Assessment: Addressing Equity and Inclusion

Day/Date : Friday, 10 October 2025
Time : 9.00 am - 12.00 pm
Venue : 1.12.06, Level 1, IMU Bukit Jalil

Facilitators:

Professor Ara Tekian
Associate Professor (Education Research), University of Illinois College of Medicine, Chicago, Illinois, United States America

Dr Naveed Yousuf
CEO, Examination Board , Associate Professor of Practice, Department for Educational Development, Medical College, Faculty of Health Sciences, The Aga Khan University, Karachi, Pakistan.

Synopsis

Medical schools often offer their faculty educational materials or hands-on experiences in assessment, which generally have a positive effect on the quality of the educational program. However, the materials and workshops that are offered tend to focus on a few specific topics that are determined by the interest and expertise of staff or the traditions of the school and issues in equity and inclusion are not necessarily considered. In this interactive workshop, five essential components of a complete faculty development program in assessment will be discussed in small and large groups with practical examples with attention to gender, race/ethnicity, sexual orientation, ability, and international medical graduates. This workshop itself will serve as an example of what participants might offer at their own institutions in the era globalization of health professions education. All participants will get five templates for organizing the workshops.

Workshop Learning Outcome

At the end of the workshop, participants would be able to:

- Acquire important knowledge and skills in assessment
- Conduct five essential assessment workshops
- Provide and discuss cases that deal with equity and inclusion
- Implement knowledge and skills acquired during the workshop at their own institutions

Uniqueness and Value Driven

Faculty development is an essential part of a quality assurance/improvement process in assessment. The current emphasis on equity and inclusion has heightened the importance of this training and underscored the need to incorporate broader perspectives.

PCW 5

Using Generative AI for Written Assessment and Qualitative Data - Applications, Opportunities and Concerns

Day/Date : Friday, 10 October 2025
Time : 9.00 am - 12.00 pm
Venue : 1.12.09, Level 1, IMU Bukit Jalil

Facilitators:

Dr Ivan Low Cherh Chiet
Education Director, Department of Physiology and Human Potential Translation Research Program, Yong Loo Lin School of Medicine, National University of Singapore, Singapore

Dr Lee Shuh Shing
Assistant Director, Centre for Medical Education (CenMED), Yong Loo Lin School of Medicine, National University of Singapore, Singapore.

Associate Professor Chen Zhi Xiong
Assistant Dean (Education), Yong Loo Lin School of Medicine, National University of Singapore, Singapore.

Synopsis

In the ever-evolving landscape of health professions education, educators and researchers are often confronted with labour-intensive academic tasks that involve analysing, grading, and providing feedback on large volumes of text-based data. The rise of Artificial Intelligence (AI), particularly Large Language Models (LLMs), presents an unprecedented opportunity to alleviate these challenges by streamlining qualitative data analysis, automating grading processes, and enhancing feedback mechanisms.

This pre-conference workshop is designed to equip health professions educators, researchers, and academic administrators with practical strategies to harness the power of LLMs for addressing these laborious academic tasks. Given the increasing volume of qualitative data in educational setting, LLMs offer promising solutions for data analysis and data interpretation. Participants will engage in hands-on activities to explore how LLMs can facilitate qualitative data analysis such as feedback data, reflective data or interview data, improving efficiency while maintaining analytical rigor.

Additionally, the session will examine the reliability, accuracy, and limitations of AI in grading written assignments, with a focus on its potential to standardize assessments and reduce faculty workload. The workshop will also explore how LLMs can provide individualised, meaningful feedback to students, enhancing their learning experience through tailored, real-time insights. Ethical considerations—such as bias, academic integrity, and data privacy—will be critically examined, ensuring participants develop a responsible and informed approach to AI adoption in academia.

Through practical demonstrations, collaborative discussions, and real-world case studies, attendees will gain actionable insights into integrating AI-powered solutions into their academic workflows. By the end of the workshop, participants will be better positioned to leverage LLMs to

optimise their educational, research, and assessment practices, ultimately improving efficiency while maintaining academic rigor and integrity.

Workshop Learning Outcome

At the end of the workshop, participants would be able to:

- Analyse how LLMs can be utilised for qualitative data analysis in health professions education.
- Evaluate the functionality, accuracy, reliability, and limitations of LLMs in grading written assignments.
- Evaluate the potential of LLMs in providing individualised feedback on written assessments.
- Discuss ethical considerations, including bias, data privacy, and academic integrity, in the use of AI for educational purposes.
- Apply AI-driven strategies to enhance teaching, assessment, and research practices in health professions education.

Uniqueness and Value Driven

This workshop stands out by offering an interactive, hands-on approach to exploring AI applications in health professions education. Unlike conventional discussions on AI, this session will equip participants with practical skills to harness LLMs for demanding academic tasks, ranging from managing quantitative to qualitative data.

Through a blend of live demonstrations, case studies, and collaborative discussions, attendees will gain firsthand experience with AI tools and critically assess their benefits and limitations. Additionally, the workshop provides a dedicated platform for educators and researchers to engage in ethical deliberations surrounding AI adoption in academia. With the increasing emphasis on AI literacy in higher education, this workshop offers timely and relevant insights that will empower participants to make informed decisions on integrating AI into their pedagogical and research practices.

PCW 6

Enhancing Global Health through Collaborative Education

Day/Date : Friday, 10 October 2025
Time : 9.00 am - 12.00 pm
Venue : Online via Zoom

Facilitators:

Professor Kavitha Nagandla
Associate Dean (Academic), School of Medicine, IMU University, Malaysia.

Associate Professor Ismail Burud Sattar
Associate Professor of Surgery, Surgery Department, School of Medicine, IMU University, Malaysia.

Dr Malanashita Ganeson
Family Medicine Department, Programme Director (MBBS), School of Medicine, IMU University, Malaysia.

Synopsis

The rapidly changing landscape of global health presents a compelling need to enhance the effectiveness of health professions education through interprofessional collaboration and innovative educational partnerships. The globalization of health challenges—ranging from pandemics to chronic disease management—requires a cohesive and unified approach t the training and continuous education of health professionals. Our pre-conference workshop is designed to address these needs by fostering an understanding of global health dynamics and cultivating the necessary skills for successful international collaborations.

Workshop Learning Outcome

At the end of the workshop, participants would be able to:

- Gain insights into effective interprofessional collaboration and partnership models that enhance health outcomes worldwide.
- Learn to formulate and sustain dynamic educational partnerships that address global health challenges and disparities.
- Improve skills in navigating cross-cultural communication and collaboration essential for global health initiatives.
- Leverage on technological solutions that facilitate international collaboration and learning in health education.

Uniqueness and Value Driven

This pre-conference workshop is uniquely designed to bridge the gap between diverse health professions across the globe through effective education and partnership strategies. It is especially relevant for professionals aiming to extend their impact on global health outcomes beyond traditional boundaries. The workshop focuses on practical solutions to foster sustainable international partnerships and enhance interprofessional educational models. By participating, attendees will have the opportunity to engage in discussion on global health education, gain insights and develop competencies in creating and maintaining impactful collaborations. The workshop is an essential platform for those looking to influence global health practices through enhanced interprofessional education and collaborative partnerships.

PCW 7

Cultural Competence in Clinical Education: Preparing Health Professionals for a Diverse World

Day/Date : Friday, 10 October 2025
Time : 9.00 am - 12.00 pm
Venue : Online via Zoom

Facilitators:

Dr Sara Shakil
Senior Instructor & Education Coordinator
Departments for Educational Development & Medicine
The Aga Khan University (AKU), Karachi, Pakistan.

Dr Kiren Habib
Senior Instructor and Consultant Physician, Section of Infectious Diseases, Department of Medicine,
The Aga Khan University (AKU), Karachi, Pakistan.

Dr Iffat Khanum
Assistant Professor and consultant infectious diseases
Section of infectious diseases, Department of Medicine
The Aga Khan University (AKU), Karachi, Pakistan.

Synopsis

In an increasingly interconnected world, healthcare professionals must be equipped to provide culturally competent care to diverse patient populations. Globalisation has led to greater mobility of patients and healthcare workers, necessitating an understanding of cultural nuances, health beliefs, and communication styles that impact patient care. Integrating cultural competence into clinical training is essential for preparing health professionals to navigate these complexities effectively.

Cultural Competence is defined as "the application of awareness, attitudes, knowledge, and skill required by medical and health care professionals to provide appropriate care and services compatible with the cultural characteristics of their diverse patients" (Li, 2023). It involves awareness of social determinants of health, implicit biases, and ethical considerations that influence patient interactions. Studies have shown that culturally competent care improves patient satisfaction, adherence to treatment, and overall health outcomes while reducing disparities (Mariño R. J., 2018) (Li, 2023). Despite its significance, many medical education programs still struggle to incorporate cultural competence into clinical training in a meaningful way.

One of the primary challenges is the traditional biomedical focus of clinical training, which often overlooks cultural and social contexts. Medical students and trainees are primarily exposed to disease pathology, diagnostic reasoning, and technical skills, with limited emphasis on patient-centered communication and cultural humility. Additionally, clinical educators may lack formal training in cultural competence, making it difficult to model inclusive care practices.

Effective integration of cultural competence into clinical training requires a structured

approach that goes beyond didactic lectures. Experiential learning methods, such as case-based discussions, role-playing, and standardized patient encounters, provide opportunities for learners to develop cultural awareness and refine communication skills. Interprofessional education, where students from different healthcare disciplines collaborate, further enhances their ability to work in diverse healthcare settings.

Moreover, assessment strategies must align with cultural competence objectives to ensure meaningful learning outcomes. Traditional evaluation methods often focus on clinical knowledge and procedural skills, neglecting aspects such as cultural sensitivity, empathy, and adaptability.

Healthcare institutions also play a crucial role in fostering cultural competence among trainees. Supportive policies, mentorship programs, and diverse clinical rotations help embed these principles into everyday practice. By prioritizing cultural competence, medical schools and teaching hospitals contribute to the development of professionals who can deliver equitable and inclusive healthcare.

This workshop aims to address these gaps by providing educators and clinical trainers with practical strategies to integrate cultural competence into clinical training. Participants will explore best practices, engage in interactive discussions, and develop action plans to enhance their teaching methods. Through this initiative, we aspire to create a healthcare workforce that is not only clinically proficient but also culturally attuned to the needs of a global patient population.

Workshop Learning Outcome

At the end of the workshop, participants would be able to:

- Describe the significance of cultural competence in clinical training and its effect on patient care.
- Recognize common cultural challenges, biases, and communication barriers that affect patient-provider interactions in diverse healthcare settings.
- Demonstrate effective communication techniques for engaging with patients from diverse cultural backgrounds
- Formulate action plans to embed cultural competence into clinical education programs

Uniqueness and Value Driven

This interactive workshop equips participants with practical strategies to integrate cultural competence into clinical training. Unlike traditional sessions, it features real-world case discussions and role-playing exercises, ensuring hands-on learning.

The workshop also provides evidence-

based best practices for embedding cultural competence into bedside teaching and patient interactions. Participants will learn how to overcome cultural barriers, enhance communication with diverse patients, and foster inclusive learning environments for better heath outcomes.

Lastly, the workshop offers valuable networking opportunities with global educators and healthcare professionals, encouraging collaboration on innovative medical education solutions. Attendees will leave with practical teaching tools, implementation strategies and an action plan for implementing cultural competence in clinical training at their own institutions.

PCW 9

Creating Virtual Patients using Large Language Models: A Hands-on Workshop

Day/Date : Friday, 10 October 2025
Time : 2.00 pm - 5.00 pm
Venue : 1.12.02, Level 1, IMU Bukit Jalil

Facilitators:

Professor David Cook
Professor of Medical Education,
Professor of Medicine,
Mayo Clinic College of Medicine,
United States America

Synopsis

Virtual patients (VPs) have long been used to teach and assess clinical reasoning, but their use has historically been limited by the high cost and logistical challenges of implementation. In this workshop participants will learn to develop their own low-cost VPs using large language models (LLMs). We will start by reviewing basic principles of prompt engineering for LLMs. Participants will will then use ChatGPT to develop, test, and refine a prompt for their own interactive VP case. Participants will be encouraged to change various VP features such as the topic, patient preferences, comorbid conditions, social determinants of health, and language. Participants do NOT need any experience using ChatGPT. They DO need to have a free ChatGPT account and they should bring a laptop (or plan to share a laptop with a colleague).

Workshop Learning Outcome

At the end of the workshop, participants would be able to:

- Explain the basic principles of prompt engineering as applied to virtual patient creation using LLMs.
- Create and refine a virtual patient case using ChatGPT.
- Modify VP features to reflect complexity such as patient values, comorbidities, social determinants of health, and cultural context.
- Evaluate the potential benefits and limitations of using LLM-generated VPs in their own teaching or assessment settings.

Uniqueness and Value Driven

- Low-Cost and Scalable: Enables educators to create interactive and realistic virtual patients without expensive software or technical expertise.
- Highly Customisable: Empowers users to adapt cases to diverse learner needs, patient demographics, and local clinical contexts.
- Accessible to All Levels: Designed for educators with no prior AI or programming experience—just a laptop and curiosity.
- Hands-On & Outcome-Oriented: Participants leave with a working prototype of a VP they can use or further develop in their teaching.
- Fosters Innovation: Encourages experimentation with AI tools in a safe, supported environment, opening new possibilities for medical and health professions education.

PCW 10

Advancing Quantitative, Qualitative and Mixed-Methods Research in Health Professions Education with AI and Digital Tools

Day/Date : Friday, 10 October 2025
Time : 2.00 pm - 5.00 pm
Venue : 1.12.03, Level 1, IMU Bukit Jalil

Facilitators:

Professor Abida Shaheen
Professor, Department of Pharmacology and Therapeutic,
Shifa Tameer-e-Millat University, Islamabad, Pakistan.

Professor Fahad Azam
Professor, Head of the Department of Pharmacology,
Shifa Tameer-e-Millat University, Islamabad, Pakistan.

Dr Nosheen Kazmi
Consultant Psychiatrist, Shifa International Hospital,
Shifa Tameer-e-Millat University, Islamabad, Pakistan.

Synopsis

This workshop focuses on the utilization of Artificial Intelligence (AI) and digital tools for quantitative and qualitative research in Health Professions Education. Participants will gain insights into AI fundamentals, including Generative AI (Gen AI), Artificial General Intelligence (AGI), and prompt engineering. The workshop aims to equip researchers with hands-on experience using AI and digital tools for data analysis, qualitative research, manuscript writing, and infographics.

Workshop Learning Outcome

At the end of the workshop, participants would be able to:

- Apply AI and digital tools in quantitative and qualitative Health Professions Research.
- Utilize AI for data analysis, qualitative research, and manuscript writing.
- Enhance research presentations using AI-powered infographic tools

Uniqueness and Value Driven

This pre-conference workshop stands out as an innovative and future-ready training session, uniquely integrating Artificial Intelligence (AI) and digital tools into Health Professions Education (HPE) research. Unlike traditional research methodology workshops, it goes beyond theoretical discussions, offering hands-on experience with cutting-edge AI-powered tools for both quantitative and qualitative research. Participants will explore the practical applications of AI and digital tools for Health Professions Education research design, data analysis, manuscript writing, and the creation of impactful infographics.

What makes this workshop truly valuable is its tailored approach for educators, researchers, and postgraduate students who seek to enhance their research efficiency and quality using AI. The interactive format,

including structured prompting frameworks and real-time tool demonstrations, ensures that attendees can immediately apply AI-enhanced methodologies to their ongoing research projects. Additionally, by addressing AI-driven qualitative analysis—a traditionally complex area—this session fills a crucial gap in HPE research training.

Participants will leave with a clear roadmap for integrating AI into their research workflows, making their studies more precise, efficient, and visually compelling. This workshop is an essential opportunity for those aiming to stay ahead in the rapidly evolving Health Professions Education research.

PCW 11

Integrating Intercultural Competence in Health Professions Education: From Foundations to Clinical Practice

Day/Date : Friday, 10 October 2025
Time : 2.00 pm - 5.00 pm
Venue : 1.12.06, Level 1, IMU Bukit Jalil

Facilitators:

Dr Rabia Aftab
Senior Instructor,
Department of Anaesthesiology and Educational Development, Aga Khan University, Pakistan.

Professor Aliya Ahmed
Department of Anaesthesiology, Aga Khan University, Pakistan

Synopsis

Globalization has brought unique mobility for both patients and healthcare professionals, adding hidden competencies to be learned essentially rather than optional ones. In today's rapidly changing technology-based world, healthcare professionals build competencies to effectively engage with patients and colleagues from diverse cultural backgrounds. This means a health professional must understand the cultural nuances, health beliefs, and communication styles that shape healthcare interactions. The answer to this is highlighting the need for being cognizant and skilled in Intercultural competence. It is defined as "the application of awareness, attitudes, knowledge, and skills required by medical and health professionals to provide appropriate, patient-centered care that aligns with the cultural characteristics of diverse populations"[1]. It includes understanding social determinants of health, recognizing implicit biases, and addressing ethical considerations that influence clinical encounters.

Numerous studies have shown that culturally responsive care improves patient satisfaction, treatment adherence, and overall health outcomes while reducing health disparities [1,2]. Despite its significance, many health professions education programs worldwide struggle to effectively incorporate intercultural competence into their teaching in a structured and meaningful way. One of our studies conducted recently on dental practitioners under review established the need for curriculum modification adding intercultural competence so that practitioners may become culturally competent when dealing with divers population.

Furthermore, traditional evaluation methods need to be modified and focus on clinical knowledge and procedural skills adding cultural sensitivity, empathy, and adaptability which are all crucial for ethical and effective patient care[3].

This workshop aims to address above mentioned challenges by equipping educators and clinical trainers with practical strategies to integrate intercultural competence throughout the educational

continuum. Participants will engage in interactive discussions, case-based learning, and hands-on exercises to develop actionable plans for enhancing their teaching methods. By strengthening intercultural competence in health professions education, we contribute to a global healthcare workforce that is not only clinically proficient but also culturally familiar with the needs of patients worldwide.

Workshop Learning Outcome

At the end of the workshop, participants would be able to:

- Define intercultural competence in the context of health professions education
- Align teaching and learning strategies to integrate intercultural competence into foundational coursework and clinical training.
- Discuss assessment methods to evaluate intercultural competence among learners.
- Develop actionable plans to foster an inclusive, culturally competent, and ethical learning environment mitigating challenges.

Uniqueness and Value Driven

This hands-on workshop will help participants to be cognizant of practical strategies to integrate intercultural competence into the whole continuum from basics to clinical training with the support of evidence-based best practices and personal experiences of the facilitators indulged in embedding intercultural competence into health professions education programs.

The workshop also offers valuable networking opportunities with healthcare professionals working globally, encouraging collaboration on innovative medical education solutions. Attendees will leave with an understanding of the importance of teamwork, acceptability, assessment alignment, and an action plan for implementing intercultural competence at their institutions.

PCW 12

Universal Design for Learning: Rethinking Assessment to support diverse students in a global world

Day/Date : Friday, 10 October 2025
Time : 2.00 pm - 5.00 pm
Venue : 1.12.09, Level 1, IMU Bukit Jalil

Facilitators:

Dr Ayesha Jawwad
Senior lecturer in Medical Education, Lead for Assessment, School of Medicine, Ulster University, United Kingdom.

Professor Rehan Ahmed Khan
Dean of the Institute of Assessment, Director of Medical Education, Riphah International University, Pakistan.

Dr Sarah Khalid
Head of the Anatomy Department, Shalamar Medical and Dental College, Lahore, Pakistan.

Synopsis

Globalization has brought unique In today's globalized world, medical education is becoming increasingly diverse, with students coming from various cultural, linguistic, and academic backgrounds. Traditional assessment methods may fail to account for this diversity, potentially creating inequities in student evaluations. Universal Design for Learning (UDL) offers a framework to design assessments that are more inclusive, accessible, and adaptable to the needs of diverse learners. This workshop will focus on the application of UDL principles to create inclusive medical assessments that can be used in a global context. Through practical case studies and group discussions, participants will learn how to design assessments that accommodate varied learning styles, language abilities, and cultural backgrounds, ensuring that all learners are assessed fairly and equitably

This workshop is aimed at medical educators, assessment leads, and curriculum designers who are looking to adapt their current assessment strategies to meet the needs of a diverse, international student population. Participants will also learn how UDL principles can help enhance clinical and cultural competence in medical assessments, ensuring that assessment practices are both globally relevant and sustainable.

Workshop Learning Outcome

At the end of the workshop, participants would be able to:

- Explain the principles of Universal Design for Learning (UDL) and their application in medical education.
- Analyse how UDL strategies can be implemented in medical assessments to foster inclusivity for diverse learners.
- Devise how to adapt assessments to cater to the needs of international students, promoting clinical and cultural competence.
- Develop strategies to ensure sustainability and adaptability of assessments in globalised educational settings.

Uniqueness and Value Driven

This workshop provides a unique opportunity for participants to explore how Universal Design for Learning (UDL) can transform medical education assessments in a global context. As medical education becomes increasingly international, traditional assessment methods must be re-evaluated to ensure they are inclusive, equitable, and sustainable for a diverse student population. While inclusive design in assessment is widely recognized and implemented in Western countries, it has received far less attention in the East. Given the diverse linguistic, cultural, and socioeconomic backgrounds of students in these regions, adopting inclusive assessment strategies is crucial to ensuring fair opportunities for all learners. What distinguishes this workshop is its emphasis on practical, actionable strategies that educators can immediately implement to enhance their assessment practices. The facilitators bring extensive experience in medical education assessment across different regions and will draw on this global perspective to guide participants in designing inclusive assessments tailored to their specific contexts.

PCW 13

Psychological Safety in Global Educational Contexts

Day/Date : Friday, 10 October 2025
Time : 2.00 pm - 5.00 pm
Venue : ICE Training Centre, Level 2, IMU Bukit Jalil

Facilitators:

Dr Elizabeth Kachur
Director, Medical Education Development, Global Consulting, New York, United States America.

Dr Chao Tian Tang
Consultant Psychiatrist, Sengkang General Hospital, Singapore.

Associate Professor Lee Yuen (Jenny) Wong
Senior Consultant in Orthopaedic Surgery, Khoo Teck Puat Hospital, Singapore.

Synopsis

Psychological safety is the belief that one will not be punished or humiliated for speaking up, sharing ideas, raising concerns or making mistakes. It can be difficult to achieve but it is a critical element of effective learning environments, regardless of training level.

Despite some geopolitical, organizational and institutional efforts to push towards elitism and isolationism, globalism is here to stay. Increased travel and exchange options, limited training and work opportunities are just some of the factors that result in the movement of learners and teachers. Online communication, networking, training and learning resources further propel the globalization of Health Professions Education (HPE).

The benefits of such developments are manifold. They can lead to the familiarization with new training methods, adoption of global competencies and educational standards. International certificate and degree programs have increased exponentially in the last decade because they can also enhance career mobility. Clearly, there is a value in reaching beyond borders to arrive at a common HPE knowledge base and a global community of practice.

Individuals move in and out of different learning and social spaces that can be in-person or virtual. Attendance in training programs can be desired and planned (e.g., conferences, exchange programs, research collaborations) or driven by external forces (e.g., training mandates, institutional expansions, conflict-related displacements). The duration can range from an hour-long international webinar to year-long training or work-related placements. These factors will affect the psychological safety of the individual who is on the move, it will also impact those who are receiving the newcomers. To be effective, all international training events need to develop strategies for breaking through silos and engendering feelings of safety and belonging in all parties involved.

For all type of learners, language and cultural barriers can result in major interfering factors. The mode of administration will also have an influence. Virtual conferences and programs do provide unique opportunities since they are not limited by geopolitical restrictions, but time zone differences

can effect alertness and readiness to take psychological risks.

This pre-conference workshop will examine the various factors that help or hinder the development of psychological safety in different global educational contexts. Using Clark's 4 Stages of Psychological Safety (2020) as framework we will work through a variety of educational scenarios to explore strategies that enhance psychological safety for all involved. Participants will be asked to draw on their personal experiences and they will walk away with new ideas they can apply immediately at the conference which is, in itself, a global HPE endeavour.

Workshop Learning Outcome

At the end of the workshop, participants would be able to:

- Describe Clark's four phases of psychological safety
- Identify factors that enhance and those that diminish psychological safety in global educational contexts
- Elaborate on strategies to increase psychological safety in learners and faculty

Uniqueness and Value Driven

Considering that the conference itself is a learning and teaching event that brings together individuals from across the globe, this PCW is an excellent opportunity to enhance psychological safety needed for optimizing participants' learning gains and contributions to the program.

PCW 14

Establishing a Globally Recognised & Sustainable Career - Nuts & Bolts of Learning, Engagement, and Networking for Early Career Health Professions Educators & Students

Day/Date : Friday, 10 October 2025
Time : 2.00 pm - 5.00 pm
Venue : Online via Zoom

Facilitators:

Dr Surapaneni Krishna Mohan
Vice Principal & Professor of Biochemistry
Head, Department of Medical Education
Head, Bioethics Unit
Panimalar Medical College Hospital & Research Institute, India.

Miss Jyotsna Needamangalam Balaji
Medical Student,
Panimalar Medical College Hospital & Research Institute, India.

Synopsis

Health professions education is no longer confined within national borders. The increasing interconnectedness of healthcare systems, advancements in digital learning, and international collaborations have transformed the way medical educators and students engage with knowledge and professional development. However, while globalization presents opportunities, it also raises challenges, how do early-career educators and students position themselves within this evolving landscape? How can they navigate international collaborations, engage with global networks, and ensure their contributions are both meaningful and sustainable?

This workshop is designed for medical students, postgraduate trainees, and early-career educators who aspire to build a career that extends beyond local institutions and into the global sphere. It will focus on the fundamental strategies required to thrive in an internationally connected field effective learning approaches that align with global standards, meaningful engagement with key stakeholders, and networking practices that lead to sustainable professional growth. Participants will also explore the ethical and practical dimensions of global engagement, including cultural competence, equity in education, and long-term career sustainability.

Through interactive discussions, case studies, and skill-building exercises, the session will help participants develop a structured yet flexible approach to career planning. Rather than passively adapting to globalization, this workshop will empower participants to actively shape their role within the global health professions education community.

Workshop Learning Outcome

At the end of the workshop, participants would be able to:

- Understand how globalization is shaping health professions education and identify key stakeholders in this transformation.

- Develop learning strategies that align with international best practices while remaining adaptable to evolving global trends.
- Explore methods of meaningful engagement with global networks, organizations, and academic institutions.
- Build effective and ethical networking skills that foster collaboration across borders.
- Identify challenges and solutions for maintaining a sustainable career within the globalized health professions education landscape.

Uniqueness and Value Driven

This workshop stands out because it moves beyond theoretical discussions of globalization to provide practical tools for early-career educators and students. Instead of viewing globalization as an abstract force, participants will engage in real-world scenarios and structured activities that help them navigate international collaborations, academic mobility, and cross-cultural professional interactions.

Additionally, the session will emphasize sustainability—not just in terms of career progression but also in ensuring that global engagement is meaningful, ethical, and aligned with personal and professional goals. By the end of the workshop, participants will have a clearer sense of how to position themselves within the global health professions education landscape and how to build long-term professional relationships that transcend geographical boundaries.

PCW 15

Fostering Student Engagement in Health Professions Education through Quality Circles

Day/Date : Friday, 10 October 2025
Time : 2.00 pm - 5.00 pm
Venue : Online via Zoom

Facilitators:

Dr Khabab Abdelmoneim Elsaid Elhag
Head, Quality Assurance and Accreditation Unit, College of Medicine and Health Sciences (CMHS), Quality Supervisor Quality Assurance and Strategic Planning Centre, Arabian Gulf University (AGU), Bahrain.

Dr Mai S. Sater
Assistant Professor, Chairperson of the Department of Medical Biochemistry, Arabian Gulf University (AGU), Bahrain.

Synopsis

In the health professions education, student engagement has emerged as a critical factor in achieving educational excellence and quality. With the increasing diversity of student populations and the challenge of adapting curricula to meet international standards, fostering student engagement is more important than ever. This workshop focuses on Quality Circles as a strategy to improve student engagement within globalised educational contexts.

Quality Circles, a collaborative approach rooted in continuous improvement, can empower students to take an active role in their learning journey. By fostering a culture of communication, problem solving, and shared decision-making, Quality Circles help bridge the gap between students, faculty, and administrators, especially in diverse learning environments.

This workshop aims to provide participants educators, healthcare professionals, administrators, and students with practical tools to enhance student engagement, overcome barriers to active participation, and apply best practices for student-centered learning in global settings. Through interactive activities and discussions, participants will gain valuable insights on how to design engaging educational experiences that cater to the diverse needs of students.

Workshop Learning Outcome

At the end of the workshop, participants would be able to:

- Understand the concept and principles of Quality Circles and their role in enhancing student engagement.
- Identify barriers to student engagement in global health professions education and explore strategies to overcome these challenges.
- Apply Quality Circle techniques to foster student participation, communication, and problem-solving in diverse learning environments.
- Develop action plans to integrate Quality Circles into their educational practices, focusing on student-centered approaches and engagement strategies.

Uniqueness and Value Driven

This workshop uniquely focuses on student engagement in the context of health professions education. It highlights how Quality Circles, a well-established method for fostering collaboration and improvement, can be adapted to enhance student participation and academic success in international educational settings. The workshop's practical approach combines theory with hands-on activities and real-world case studies, enabling participants to learn and apply engagement strategies that can be immediately implemented in their institutions. The focus on global student diversity and the challenges of engaging students from different cultural and academic backgrounds makes this workshop particularly valuable for those working in international or multicultural educational environments.

PCW 16

Integrating AI-enhanced Adaptive Technologies into the Health Professions Curriculum

Day/Date : Friday, 10 October 2025
Time : 2.00 pm - 5.00 pm
Venue : Online via Zoom

Facilitators:

Dr Olivia Tee
iGroup (Asia-Pacific) Ltd.
ELITE @ UM Fellow, University Malaya, Malaysia.

Dr Goran Stevanovski
World Health Organization, North Macedonia
Lecturio

Synopsis

The rapidly evolving landscape of medical education necessitates a shift from traditional one-size-fits all, static instructional methods to more dynamic, adaptive, and personalized learning approaches. Research highlights that personalized learning enhances student engagement, knowledge retention, and competency-based progression (Chowdhury et al., 2024). Adaptive learning technologies, driven by AI, offer an evidence-based approach to tailoring educational experiences to individual learners' needs, optimizing their self-directed learning (Bayly-Castaneda et al., 2024).

Medical educators face significant challenges in accommodating diverse learning paces, knowledge gaps, and competency-based requirements. AI-enhanced platforms provide scalable solutions by enabling real-time data-driven insights, automated assessments, real-time feedback, learning analytics and personalized learning recommendations. These innovations align with the master adaptive learner framework, which emphasizes continuous learning, self-regulation, and adaptability, core competencies in modern medical education (Khamis et al., 2025).

Using Lecturio as an example, this workshop is designed to equip medical educators with the necessary knowledge and practical skills to integrate AI-enhanced medical education platforms and adaptive learning technologies into the curriculum, optimising assessment and tracking progress/ performance of the learners.

In leveraging AI-driven adaptive Learning technologies, educators can effectively enhance the educational experiences and support the development master adaptive learners in health professions education.

Workshop Learning Outcome

At the end of the workshop, participants would be able to:

- explain the role of AI-enhanced Adaptive technologies in health profession education and its potential for creating personalized learning
- identify key adaptive learning features

that enhance self-directed learning and educational outcomes

- integrate AI-driven adaptive assessment tools to optimize evaluations, with the tracking of student progress and performance
- have gained hands-on experience of using an AI-question generator to create assessment questions (MCQs)
- address ethical considerations and challenges in implementing AI-driven medical education platforms into the curriculum

Uniqueness and Value Driven

Using one of the most advanced and comprehensive Medical Education learning platforms (Lecturio) as an example, this session is able to demonstrate the actual process of adaptive learning and adaptive assessment, providing insights and empowering participants to confidently integrate this technology into their health professions curriculum.

This workshop is a must-attend for educators looking to stay at the forefront of medical education innovation. Having a good understanding of how to leverage AI-enhanced adaptive technologies in their teaching practices positions them as leaders in the evolving educational landscape.

ORAL PRESENTATION ABSTRACTS

Curriculum Design

ABSTRACT ID:
ORF-CUD01

How Do Cultural Dimensions Influence Medical Students' Acceptance of Artificial Intelligence? A Scoping Review

Sylvia Sari[1], Archie Reiniatie[2], Maizatullifah Miskan[2], Siska Telly Pratiwi[1], Fitriardi Sejati[1]
[1]Faculty of Medicine Jenderal Achmad Yani Universitas, Indonesia
[2]University Pertahanan Nasional Malaysia, Malaysia

Background:
Artificial intelligence (AI) is being adopted globally and is reshaping teaching, learning, and assessment in medical education. As AI tools become increasingly integrated into students' academic and clinical activities, their acceptance of AI varies across countries. Hofstede's cultural dimensions appear to influence how medical students engage with AI technologies. Despite growing interest in the use of AI in medical education, the role of cultural context in shaping student acceptance remains underexplored. Therefore, this study aims to explore which cultural dimensions influence students' acceptance of AI implementation in medical education, as reported in existing literature.

Methods:
We conducted a scoping review using the framework proposed by Arksey and O'Malley, guided by the PCC (Population–Concept–Context) model. Literature searches were conducted in PubMed, Scopus, ERIC, and CINAHL for studies published between 2018 and 2025. Grey literature was included from Google Scholar. Studies were eligible if they reported medical students' perceptions of AI use in specific national or cultural contexts. Thematic analysis was performed to identify cultural patterns based on Hofstede's cultural dimensions.

Results:
We identified 16 studies that met the inclusion criteria. Studies from high power distance and collectivist countries—such as Indonesia, Malaysia, Saudi Arabia, Turkey, and Iran— reported low to moderate readiness and highlighted the need for AI curriculum enhancement. In contrast, studies from Western countries including Germany, the USA, and the UK showed high agreement on the usefulness of AI training and emphasized specific areas for improving AI application in healthcare. These findings were used to develop culturally informed recommendations for AI integration in medical education based on Hofstede's dimensions.

Conclusion:
To maximize the impact of AI in medical education, we must move beyond a one-size-fits- all approach. By acknowledging and addressing cultural differences, educators can design AI-integrated learning experiences that are responsive to student's need.

Takeaway Message:
Student acceptance of AI in medical education is shaped by culture. Designing effective AI-integrated learning requires cultural awareness. Tailoring AI education to cultural dimensions ensures more meaningful, trusted, and inclusive adoption of AI use across diverse learning environments.

ABSTRACT ID:
ORF-CUD02

Nursing Faculty's Preparedness to Adopt Integrated Curriculum in Undergraduate Nursing Programs: A Mixed-Method Study

Gohar Ali, Sumreena Mansoor, Saira Akhlaq, Sabeen Saad
Shifa Tameer e Millat University, Pakistan

Medical education has increasingly adopted integrated curricula to enhance the competency of graduates; however, undergraduate nursing programs have yet to implement this approach. Faculty members' familiarity and comfort with traditional curricula have contributed to this delay. Limited literature explores integrated curricula in undergraduate nursing education, particularly regarding faculty knowledge and attitudes. This study assesses the preparedness of nursing faculty, which was measured by considering two variables under the umbrella: knowledge and attitudes of undergraduate nursing faculty toward an integrated curriculum across three private nursing colleges in Karachi, Pakistan. A mixed-methods study was conducted using a pragmatic approach. A newly developed questionnaire was piloted and validated with a content validity index (CVI)=0.88 and tested for reliability with n=10 (Cronbach's alpha = 0.82). A questionnaire was used to collect quantitative data via Likert scale items. The sample (n=37) was selected using non-probability convenience sampling. Qualitative data was gathered through purposive sampling in one-on-one interviews. Participants included Aga Khan University, Ziauddin University, and Baqai Medical University nursing educators. Data were analyzed using SPSS version 26. Most of the faculty members were female, 65%, whereas 35% were male, fewer in number. The faculty demonstrated significant knowledge of integrated curricula, with 86% being well-informed ($p<0.001$). Additionally, 81% of faculty members exhibited a positive attitude towards the integrated curriculum ($p<0.001$). Correlation between knowledge and attitude, and familiarity with the integrated curriculum was positively correlated ($r = 6.29$, $p = 0.000$). Despite the integrated curriculum being a relatively new concept in nursing education, faculty members possess substantial knowledge and demonstrate a strong positive attitude toward its implementation. These findings emphasize the pivotal role of faculty in curriculum transformation and suggest that with continued support, the integrated curriculum can be successfully adopted in undergraduate nursing education, fostering competent nursing professionals.

Takeaway Message:
Integrated curriculum in nursing undergraduate programs has a lot of potential to improve the quality curriculum in nursing education. Nursing faculty has sufficient knowledge and intention to implement the integrated curriculum. By adopting a comprehensive plan to implement integrated curriculum in nursing undergraduate program by addressing the challenges, integrated can easily be implemented in nursing undergraduate programs.

ABSTRACT ID:
ORF-CUD03

Perceptions about Artificial Intelligence tools for scientific writing among eye health professionals

Suman Sahu, Ruby Kala Prakasham, Ananya Dutta
LV Prasad Eye Institute, India

Background:
Scientific writing is being reshaped by the transformative influence of artificial intelligence. These tools have their benefits, including faster drafting times, precisely processing large amounts of data, and organizing references, as well as improving

readability. However, hallucination, algorithmic bias, and lack of transparency over authorship remain notable concerns. This study focused on the awareness, perceptions, and preparedness of eye health professionals in adopting such tools for scientific manuscript development.

Methodology:
A workshop on AI tools in scientific writing was conducted at LV Prasad Eye Institute. A total of 24 ophthalmology and optometry faculty participated in the AI workshop. The workshop included: 1) an interactive talk on challenges in scientific writing, 2) demonstrations of advanced search technologies and selective AI tools (SCITE, ChatGPT, EQUATOR Network), 3) ethical use of AI in scientific writing, and 4) hands-on exploration of AI tools by participants on their PCs. The pre-survey focused on understanding participant's prior knowledge and experience with the use of AI tools, while post-survey focused on participant's learning from the workshop and their attitude towards future application of AI tools for scientific writing.

Results:
Most participants (70.8%) had used AI tools for scientific writing prior to the workshop; however, their confidence significantly increased (paired t-test, $p < 0.05$), with 91.7% reporting higher confidence levels post-workshop. ChatGPT emerged as the most widely used tool (71.4%), while reference managers like Zotero and EndNote were underutilized (4.8% each). The majority of participants (66.6%) expressed interest in using AI tools for literature search, drafting manuscript sections, and improving language. Overall, 70.8% of participants rated the workshop positively, scoring it 8 or above on a 1–10 scale.

Conclusion:
This study shows that structured AI tool training incorporating hands on session for scientific writing significantly enhances workshop effectiveness by improving participants' confidence, practical awareness, and ethical grounds.,

Takeaway Message:
Structured AI training empowers researchers to use AI tools effectively and ethically in scientific writing. Organizing such sessions periodically fosters continuous learning, sustains awareness, refines practices, and addresses evolving challenges in responsible AI adoption.

ABSTRACT ID:
ORF-CUD04

Building the Foundation for Success: Experience of creating an immersive Ophthalmology Fellowship Induction Program at an Advanced Tertiary Eye Care Institute

Anubha Rathi, Snigdha Snigdha, Avinash Pathengay, Shefali Rajesh Pandey, Sethumathi Gouragari, Aarti Rawat, Shobha Mocherla
LV Prasad Eye Institute, India

Background:
Induction program (IP) integrates trainees of all disciplines into same clinical and learning environment. Our 30-day long IP uses active learning strategies and is comprised of six core components: Foundation Skills (FS), Historical Perspective and Organizational Culture (HPOC), Protocol-Based Patient Management & Clinical Research (PBM), Sub-specialty Clinical Management Skills (CMS), Simulation-Based Cataract Training and Evaluations (SIM); and Administrative and Leadership Skills (ADM). With this study, we aimed to describe the components of IP and how it aligns with trainee expectations using a pre and post induction feedback.

Methods:
Using a mixed-methods cross-sectional study design, data were collected at two time points using structured questionnaires that combined quantitative ratings with open-

ended qualitative feedback. Inclusion criteria were enrolment in fellowship and completion of at least one month of training (for the post-induction group). Pre-Induction Questionnaire (PreQ) and Post-Induction Questionnaire (PostQ) included 5-point Likert scale rating for each component [1-Not Important to 5- Extremely Important] and short-answer responses. Data was appropriately analyzed.

Results:
31 trainees [25 (80.64%) females and 6 (19.35%) males] were part of the IP. Mean age was 30.64 +/-3.19 (Mean, SD) years. PreQ (31 trainees) and PostQ (23 trainees). PreQ analysis revealed CMS (90.32%) followed by FS component (87.10%) were rated as most important pillars of the IP. HPOC was rated as most important by 48.39% in PreQ which increased to 82.61% in PostQ. SIM was rated as most important by 64.52% in PreQ which decreased to 34.78% in PostQ. Specific feedback about sessions revealed that the active learning strategies were perceived as highly effective and engaging.

Conclusion:
Our six pillared IP equips our ophthalmology fellows with a skillset beyond core clinical competencies. Trainee feedback validates the model and also suggests increased focus on clinical skills and historical perspectives.

Takeaway Message:
nduction in medical and surgical training is the one-time formal initiation of trainees into institute legacy and practice patterns to enable them to straightaway align with the articulated vision. Our Six pillared robust Induction program model is replicable and ensures an all-round development of trainees which enables them to make a smooth transition into the demanding fellowship plan.

ABSTRACT ID:
ORF-CUD05

Exploring the journey of implementation of Integrated Anatomy Curriculum Adoption in MBBS First Year: A Qualitative Dive into UHS Affiliated Colleges

Maryam Fatima, Javeria Noor, Aizaz Ahmad Khan, Sarah Khalid
Shalamar Medical and Dental College, Pakistan

Introduction:
Traditional methods of teaching in medical education such as rote memorization and lecture-based instruction no longer meet the demands of contemporary healthcare. Recent years have witnessed a shift towards holistic and integrated teaching approaches to bridge the gap between theoretical knowledge and clinical practice.

Objective:
This study aims to identify specific challenges faced by anatomy teachers during the transition to integrated curriculum and suggest solutions for these challenges. Methods: This qualitative exploratory study included fifteen faculty members from public and private sector medical colleges affiliated with the University of Health Sciences (UHS), selected via convenience sampling. A validated questionnaire, the Integrated Curriculum Implementation Challenges (ICIC) tool developed by Aslam et al. (2024) was used to guide focus group discussions. The tool comprises 42 items across six domains and demonstrates strong content validity and internal consistency. Ethical approval was obtained from the Shalamar Institutional Review Board and informed written consent was secured. Data was manually recorded and thematically analyzed to identify themes and subthemes.

Results:
Seven major themes emerged: (1) Inadequate working environment, (2) Knowledge deficits among students (3) Student Adversities (4) Leadership gaps (5) Poor faculty-administration coordination (6) Faculty burnout and (7) Limited faculty development opportunities. Participants reported insufficient staffing, inadequate institutional resources, and unbalanced workload as major obstacles. The new curriculum also appeared to compromise student understanding of foundational anatomy due to insufficient orientation and integration strategies.

Conclusion:
The successful integration of anatomy into the modular curriculum demands institution-wide support particularly in the form of targeted faculty development, transparent leadership, workload redistribution and enhanced communication structures. Empowering faculty through institutional support and strategic planning is essential for the sustainable and meaningful adoption of an integrated anatomy curriculum.

Keywords:
Integrated Anatomy Curriculum, Curriculum Reform, Implementation Challenges, Medical Education, Faculty Perspectives

ABSTRACT ID:
ORF-CUD06

Curriculum Dysfunction Through the Eyes of Educators: Revisiting Abrahamson's Metaphors in Contemporary Medical Education

Amara Butt[1], Shabana Ali[2]
[1]*Rawal Institute of Health Sciences, Pakistan*
[2]*Riphah International University, Pakistan*

Background:
In 1978, Stephen Abrahamson used "curriculum diseases" as metaphors for persistent issues in medical education. Despite major advancements—like competency-based models and digital learning—such dysfunctions continue. However, little empirical research has explored how faculty and curriculum leaders today perceive and address these challenges, particularly in LMICs, where systemic barriers may intensify curriculum problems.

Objective:
Explore how medical educators and curriculum leaders perceive curriculum dysfunctions in modern undergraduate medical education.

Identify strategies used by faculty and academic leaders to manage, adapt to, or mitigate these dysfunctions. Propose refinements or expansions to the curriculum disease framework based on contemporary insights.

Materials & Methods:
A qualitative study was conducted at the Department of Medical Education, Rawal Institute of Health Sciences, Islamabad, from January to April 2025. In-depth, 16 semi-structured interviews with curriculum leaders and academic administrators from multiple medical schools (preferably with diverse curricular models and regions). Thematic analysis using both inductive and deductive approaches, with Abrahamson's framework as a sensitizing concept.

Results:
A total of seventeen interviews from participants of 15 medical schools were conducted. Results showed faculty resistance stemmed from traditional mindsets, limited pedagogical training, and clinician disengagement. Institutional barriers included weak governance, poor planning, and inadequate resources for digital integration. Students were under-involved in curriculum decisions, though their digital learning preferences highlighted a need for adaptation. Curriculum and assessment were poorly aligned, lacking integration and focus on emerging areas like AI. Key enablers for sustainable reform included faculty

development, student involvement, reverse curriculum design, and strong leadership.

Conclusion:
The study shows that implementing integrated medical and dental curricula requires overcoming faculty resistance, improving institutional support, and aligning with modern educational needs. Despite challenges, strategies like faculty development, inclusive decision-making, and strong leadership provide a path to sustainable reform.

Take home message:
Curriculum reform will only succeed if institutions invest in faculty development, modernize curricular content, and foster leadership that actively drives and supports change.

ABSTRACT ID:
ORF-CUD07

Strengthening undergraduate Forensic Medicine Education through curriculum reform in Pakistan: A Mixed-method study based on faculty perspective

Sundus Ambreen[1], Tasneem Murad[1], Shirza Nadeem[2]
[1]Riphah International University Islamabad, Pakistan
[2]University Medical and Dental College Faisalabad, Pakistan

Background:
Forensic medicine plays a vital role in bridging healthcare and legal systems by training medical graduates in medico-legal responsibilities such as autopsy reporting, injury documentation, and legal testimony. In Pakistan, despite PM&DC's curricular guidance, the subject is often marginalized-taught as theory-heavy with minimal clinical exposure. Outdated, rote-based teaching fails to equip students with essential medico-legal competencies. Reports like HBOND 2024 highlight the lack of structured exposure to autopsies, courtrooms, and medico-legal reporting.

Methodology:
This mixed-method, multi-centric study aims to identify curricular additions and deletions needed to improve medico-legal competence among medical graduates. Data collected via a structured questionnaire from forensic experts across all provinces of Pakistan. Questionnaire demonstrated (CVI/Ave ≥ 0.90). Focus group discussions with eight forensic curriculum experts proposed grassroots-level curricula reforms to address identified gaps, align training with medico-legal practice, and present recommendations to the PM&DC curriculum review committee and medical universities.

Results:
97 faculty members from public and private medical colleges across Pakistan participated. While 97% followed PM&DC guidelines, only 22% reported full curriculum integration, and 80% considered the curriculum inadequate for real-world medico-legal tasks. Students' medicolegal exposure was limited (only 11% reported). Thematic analysis of open-ended survey questions revealed gaps in skill-based training, assessment relevance, faculty preparedness, and curriculum Integration barriers. FGD emphasized the need for structured and supervised practical exposure, competency-based curriculum, updated toxicology content, obsolete irrelevant legal frameworks simulation-based assessments. Institutional resistance, faculty shortages, limited teaching or allocated hours for the subject, and outdated teaching practices were identified as barriers to effective curriculum reform.

Conclusion:
The study highlights curriculum reform needs in undergraduate forensic medicine education at a national level. Emphasis must shift toward competency-based curriculum and practical exposure. Addressing assessment weightage, faculty training, and innovative teaching

methods is fundamental to prepare ethically competent medico-legal professionals.

Takeaway Message:
Curriculum reform in forensic medicine must prioritize practical exposure and competency-based training to produce medico-legally competent graduates in Pakistan.

ABSTRACT ID:
ORO-CUD08

Omani Medical and Biomedical Students Perspective on Digital Health Integration in Medical Curricula: Recent and Future Views

Halima Albalushi, Nazik Ahmed, Rawan Al Busaidi, Yamamah Mohmood, Aya Al Rahbi, Srijit Das
Sultan Qaboos University, Oman

Background:
Objectives: Digital health technologies are revolutionizing healthcare delivery by improving accessibility, efficiency, and patient outcomes. This study aims to explore the medical and biomedical students' perspectives on the integration of digital health in medical curricula.

Methods:
A cross-sectional study was conducted from August until November 2023 on medical and biomedical undergraduate students at the College of Medicine and Health Sciences at Sultan Qaboos University (SQU). Data was collected using a self-administered questionnaire. Descriptive statistics present the demographic data and questionnaire items presented using frequencies, bars, and pie charts.

Results:
The comments made by the participants suggested that there is a definite need for more structured and thorough training. While some students were able to take advantage of digital literacy classes and specific e-health technologies, the majority of students believed that the curriculum that was currently being offered was insufficient. The fact that the e-Health courses they were given, were frequently brief and that they typically lasted for less than five hours indicates that comprehensive training is deficient. An extensive range of topics, ranging from fundamental digital literacy to more specialized fields such as telemedicine, artificial intelligence, data security, health informatics, and the utilization of medical applications, were suggested for inclusion.

Conclusion:
Introduction of digital health concepts into medical curricula is essential for bridging the gap between traditional medical education and the demands of modern clinical practice. There is a need for embedding digital health education within medical programs and implementing a structured, competency-based approach to prepare future physicians for the digital era.

Takeaway Message:
embedding digital health education within medical programs and implementing a structured, competency-based approach to prepare future physicians for the digital era is highly recommended.

ABSTRACT ID:
ORF-CUD09

Global Healthcare Innovation – Teaching Simulation without a Lab Using AI

Samina Malik[1], Jabeen Fayyaz[2]
[1]*University of Lahore, Pakistan*
[2]*University of Toronto, Canada*

Background:
Simulation-based education is a critical component of modern medical training, ensuring learner-readiness while maintaining

patient safety. However, the high cost and infrastructural demands of simulation labs often limit access, particularly in resource-constrained settings. This innovation aimed to explore the feasibility and effectiveness of integrating artificial-intelligence (AI) into simulation-based- education without the need for simulation labs, thus enhancing global equity in health professions education.

Methodology:
As part of the Inter-Medical College Physiology Quiz 2024, twenty-five teams of undergraduate medical students from various countries were engaged in an AI-supported simulation competition. Each team used freely available AI platform (ChatGPT 3.5), to develop a clinical simulation scenario aligned with INACSL (International Nursing Association for Clinical Simulation and Learning) standards. Scenarios were structured around three sequential clinical triggers—history, examination, and investigations—and supplemented by student-enacted videos on pre-briefing, simulation enactment, and debriefing. Scenario assignments were randomized using an online tool, and knowledge was assessed via Zoom-based Q&A sessions on underlying pathophysiology.

Results:
Feedback revealed that students found the AI-based simulation process engaging, collaborative, and educationally enriching. Importantly, the absence of a traditional simulation lab did not hinder learning outcomes. The activity promoted critical thinking, teamwork, and reflective learning through video-based analysis of clinical decision-making.

Conclusions:
This project highlights a scalable and sustainable model for simulation-based-education that can be implemented globally, especially in low-resource settings. By integrating AI with clinical simulation, educators can overcome geographic and economic barriers while adhering to international standards. Furthermore, this innovation supports early exposure to clinical reasoning and fosters self-regulated learning, making it a viable strategy for global health professions education reform.

Keywords:
Artificial Intelligence, Simulation, Health Professions Education, Globalization, INACSL Standards

Takeaway Message:
Simulated patient can be used in PBL and its scenario script can be created by AI to give ownership of curriculum to students even without simulation lab or real patient in low-middle income countries for patient and student safety.

ABSTRACT ID:
ORO-CUD10

Greening the Curriculum: Integrating Climate Change into Medical School Training in Pakistan

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Background:
Climate change is increasingly recognized as a serious public health concern, particularly in low- and middle-income countries like Pakistan, which ranks 8th on the Global Climate Risk Index 2024 and faces severe environmental stressors including extreme heat, smog, droughts, floods, and altered disease patterns. However, despite the country's heightened vulnerability, climate-health education remains fragmented or entirely missing from undergraduate medical curricula. The main objective of this study was to explore the readiness of medical school curricula in Pakistan to address the health implications of climate change, identify gaps, and propose a framework for integrating climate health education aligned with PM&DC standards.

Methods:
A descriptive cross-sectional study was conducted among 100 faculty members from both public and private medical colleges across Pakistan. Stratified random sampling ensured representation from clinical, basic science, and public health departments. Data were collected using a validated questionnaire, with quantitative findings summarized descriptively and qualitative responses analyzed thematically.

Results:
The analysis revealed that of the participants, 88.3% acknowledged the health impacts of climate change, yet only 42.2% reported the inclusion of relevant content already included in curricula. Key health themes identified included smog-induced respiratory illnesses, vector-borne and water-borne diseases, heat-related conditions, mental health challenges, and food insecurity. Major barriers to integration included limited curriculum time (74.5%), lack of faculty expertise (48%), and low awareness (52%). Respondents recommended introducing dedicated climate-health modules, faculty development programs, interdisciplinary teaching approaches, and alignment with PM&DC competencies.

Conclusion:
The findings suggest that Pakistani medical curricula are insufficiently prepared to address climate-health challenges. There is an urgent need for systemic reform through curriculum integration, faculty training, experiential learning, and institutional policy alignment. The proposed framework offers a structured pathway for embedding climate-health education into undergraduate medical training, ultimately aiming to cultivate a climate-resilient healthcare workforce in Pakistan.

Takeaway Message:
Medical schools in Pakistan must urgently adapt their curricula to include climate-health education. Building faculty capacity, restructuring content, and aligning with national standards are critical to preparing future doctors for the growing health challenges posed by climate change.

ABSTRACT ID:
ORF-CUD11

Preparedness For Research Conduction of Postgraduate Speech Therapy Students on the Basis of Research Component in the Curriculum

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Background:
Research in general enhances knowledge across various disciplines, health-related research has a particularly profound impact as it directly contributes to improving individuals overall well-being. In academic and professional settings, equipping future practitioners with research capabilities is vital to advance clinical practice and evidence-based care. In Pakistan, the growing field of speech language pathology demands professionals equipped with strong research skills to support evidence-based practice. Although research components are included in postgraduate curricula, their effectiveness in preparing students for independent research remains unclear. Many students may face challenges this study is therefore significant as it evaluates the effectiveness of current curricular practices in preparing speech therapy students for research conduction. This study aims to assess the actual preparedness of MSSLP/T students, helping to identify gaps in training and inform improvements in curriculum design to enhance research in the field and nurturing competent professionals who can contribute to the scientific community and improve service delivery in speech-language pathology across Pakistan.

Objective:
The main objective of the study was to determine the preparedness of research

conduction speech therapy post graduate students on the basis of research in curriculum as it applies to research classes and research projects and also to determine the attitude, skills and knowledge for conduction of post graduate research.

Methodology:
A descriptive cross-sectional study was conducted to investigate the preparedness for research conduction of post graduate speech therapy students on the basis of research component in the curriculum that includes 120 students of MSSLP/T program from 3 different universities of Pakistan after their written consents. A convenient sampling technique is used to collect data from participants. The inclusion criteria included males and females, enrolled students of MSSLP/T and 3rd & 4th semester students of post-graduation course. A survey questioner used to investigate the results that included 30 questions of different categories related to research. Data is analyzed through SPSS 26 and presented in the form of frequencies and percentage in tabular and graphic form. It is 6 months' duration study.

Results:
All 120 students participated and completed the survey, with responses collected both online and manually. Female students made up over 90% of the participants, while 8.7% were male. About 70% were newly graduated, 74% reported having a dedicated research course, and 71% had attended more than four research classes. Additionally, 69% had research project in order to post-graduate and 45% of them review more than 20 articles for their research project. 68% of participants are ready to publish their research upon post-graduation and 68% think that research is an essential part in speech therapy field. On the basis of skills 62% of participants review literature independently on their hand 92% in experimental design, 85% in data analysis,72% in manuscript writing and 81% in presentation needs assist while doing research.

Conclusion:
It is concluded that the more participants were females and newly graduated from different institutions. A maximum participants undertook a research project as a program requirement, and 88% had more than four research-related classes. There is a strong relation between the Graduation time of student, Attitude and skills acquisition from the research curriculum, newly graduates have positive attitudes and more skilled in research conduction than the participants practicing more than 2 years.

Key words:
Post-graduation, speech language pathology/ therapy, curriculum.

ABSTRACT ID:
ORF-CUD14

Bridging Basics to Bedside: Assessing the Clinical Preparedness of 3rd-Year MBBS Students Under the UHS Revised Integrated Curriculum

Aizaz Ahmad Khan, Maryum Fatima, Javeria Noor, Sarah Khalid
Shalamar Medical and Dental College, Pakistan

Background:
The medical curriculum is quite comprehensive, and there is a global shift from traditional to integrated curriculum aimed at improving clinical applicability of theoretical knowledge. The University of Health Sciences (UHS), Lahore, implemented an integrated MBBS curriculum. As the first cohort trained under this model enters clinical rotations, this study investigates whether the integrated curriculum enhances clinical preparedness compared to the traditional model. The research question guiding this study is: Does the revised UHS integrated curriculum improve the clinical readiness of 3rd-year MBBS students?

Method:
A cross-sectional comparative study was conducted at Shalamar Institute of Health Sciences. 140 third-year MBBS students were recruited via stratified random sampling, with 70 students from the traditional curriculum and 70 from the integrated curriculum. Clinical preparedness was evaluated using Objective Structured Clinical Examination (OSCE) scores and structured faculty assessments. Quantitative data were analyzed using independent t-tests and ANOVA in SPSS 26.

Results:
Students trained under the integrated curriculum demonstrated significantly higher OSCE scores (mean = 78.4 ± 6.5) compared to their peers from the traditional curriculum (mean = 71.2 ± 7.3, $p < 0.001$) in initial data. Faculty evaluations echoed this trend, rating integrated curriculum students higher in clinical reasoning, patient communication, and physical examination skills. ANOVA revealed curriculum type as a significant factor influencing clinical preparedness scores ($F(1,138) = 15.67$, $p < 0.001$).

Conclusion:
The integrated UHS curriculum enhances clinical readiness among 3rd-year MBBS students, as evidenced by improved OSCE performance and faculty evaluations. These findings support the ongoing curricular reform in Pakistan and provide valuable insights for medical educators and policymakers seeking to optimize undergraduate clinical training.

Takeaway Message:
The integrated MBBS curriculum significantly enhances clinical preparedness among students compared to the traditional model. These findings underscore the value of curriculum reform in aligning medical education with clinical competence needs.

ABSTRACT ID:
ORF-CUD15

Identifying the Gaps in Mentorship: Longitudinal Evaluation of Clinical Post-graduate Training Program Perceptions Among Residents: A Single-Center Study

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Introduction:
Effective mentorship is a cornerstone of postgraduate medical training, fostering clinical competence, academic engagement, and professional growth. While structured rotations and guided learning are essential, the role of faculty and leadership in creating a supportive environment is critical. This study aimed to longitudinally explore residents' perceptions of mentorship and academic components of their training program through two consecutive audits at a tertiary care teaching hospital.

Aim:
To assess changes in residents' perceptions of mentorship, academic support & teaching activities following departmental feedback-driven interventions over a 16-month period.

Materials and Methods:
This longitudinal study involved two rounds of online questionnaires administered to postgraduate clinical residents of a single department in a teaching hospital. The first round was conducted in August 2023 (n=18), and the second in January 2025 (n=23). Following the initial audit, the results were shared with departmental faculty and leadership to inform feedback-driven interventions. The survey instrument consisted of ten items, assessing residents' perceptions of mentorship involvement, guidance prior to departmental rotations, academic support, teaching sessions, assessment adequacy,

and participation in multidisciplinary team meetings. Data were analyzed using Fisher's Exact Test for categorical variables and the Mann–Whitney U Test for ordinal data, with statistical significance set at $p < 0.05$.

Results:
Several changes in residents' perceptions over the 16-month study period were noted. Notably, satisfaction with supervisory support significantly declined from 72.2% in August 2023 to 43.5% in January 2025 ($p = 0.020$). While not statistically significant, several other trends were observed as follows:
Resident involvement in planning departmental rotations decreased from 33.3% to 17.4% ($p = 0.127$).
Formal rotation plan provision at the beginning of training also showed a non-significant decline from 22.2% to 17.4% ($p = 0.420$).

Apprehension levels prior to a new rotation within the department showed a non-significant increase ($p = 0.232$).
A near-significant shift in academic reliance was observed, with dependence on senior colleagues decreasing (5.5%) and reliance on same-level peers increasing (39.1%) ($p = 0.051$).
Satisfaction with formal teaching classes dropped from 88.9% to 69.5%, though this change was not statistically significant ($p = 0.234$).
Perceptions of the adequacy of quarterly examinations remained stable ($p = 0.355$).
Although residents consistently supported their participation in multidisciplinary team meetings (no significant change in support, $p = 0.238$), agreement to their actual involvement in these meetings declined from 72.2% to 39.1%, a non-significant trend ($p = 0.667$).

Conclusion:
This longitudinal evaluation demonstrates that, despite initiatives, perceived mentorship and supervisory engagement declined over the study period. The increasing dependence on peer support suggests a gap in structured faculty mentorship. Results highlight the need for sustained faculty development, a formalized mentorship framework, and improved practices to enhance the resident learning environment.

Strengths, Limitations, and Recommendations:
Strengths include the study's longitudinal design and resident-driven quality improvement focus. Limitations are single-center study and modest sample size. Lack of qualitative data limits insight into resident dissatisfaction. Practical measures should be taken to address underlying issues in resident support in clinical training program, e.g. structured mentorship frameworks, on-going feedback mechanisms, and mixed-method evaluations.

Take-home Message:
Clinical residents' growth thrives on structured and consistent mentorship—gaps reveal how essential faculty guidance truly is.

ABSTRACT ID:
ORF-CUD16

Collaborative Curriculum: Students and Deaf Community Partners Build Sign Language Interpreter Training Resources

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IMU University, Malaysia

Background:
Absence of trained sign language interpreters (SLIs) affects healthcare and is a barrier to equal access for deaf people. The UNSDG 10 focuses on reducing inequalities among handicapped communities. At IMU, the Community Engagement platform launched an upskilling course in medical basics for SLIs. JUPEBIM (Malaysia's SLI association) and Deaf associations were involved in developing the project.

Methods:
The curriculum was created by students, helped by specialists from Medicine, Surgery, Dentistry and other disciplines. Each specialist identified 8 diseases that needed communication for diagnosis and management. A 16-week course was launched with appropriate curriculum and assessment components. Learning resources included a 250-page textbook and 16 half-hour videos. Students, supervised by Faculty, wrote the book chapters and recorded videos using public domain or AI-generated images. The content was delivered in 16 Zoom sessions where the videos were played, followed by tutorials by specialists. For assessment, supervised students designed 30 MCQS (online), plus an OSCE (physical) where deaf people played the patients, and a specialist played the doctor. An SLI and a doctor fluent in signing were the assessors. The pass mark was 70%. Later, we organized a health camp for deaf patients, and the SLIs had the chance to use their training.

Results:
In the feedback 87.5% of participants agreed that the course was relevant. 81% felt that it would help them interpret for deaf patients. 73% of participants requested more practical sessions. The duration, content, and specialist involvement were largely perceived as good.

Conclusions.
A 16-week online course is appropriate for training SLIs. Practical sessions are likely to benefit. With guidance, undergraduate medical students make valuable contributions to the course in areas of both curriculum, assessment and content.

Takeaway Message:
Undergraduate students can make valuable contributions to the creation and execution of community engagement projects.

Educational Technology

ABSTRACT ID:
ORF-EDT01

Feasibility of ChatGPT-Assisted Training for Ophthalmic History Taking in Optometry Education

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Introduction:
History taking is essential in eye care, but peer role-play has limitations, such as limited availability, variability, and inconsistent feedback. This study explores the feasibility of ChatGPT-assisted role-playing as a supplementary tool for ophthalmic history-taking training.

Methods:
As part of their weekly one-day theory classes, all optometry interns participated in 45-minute ChatGPT-based history-taking sessions, conducted in batches of 5–7 students. Over a period of three months, approximately 106 interns were trained, with each batch attending 3–4 faculty-guided role-play sessions, followed by independent practice on additional cases. A feedback questionnaire was developed through focused discussions and underwent face and content validation by experts. The revised final questionnaire was distributed to all 106 interns, and the feedback was collected and analysed using descriptive statistics.

Results:
Out of 37 participants (response rate: 34.9%), 91.7% appreciated the concept of learning ophthalmic history taking through ChatGPT-based role-playing. Approximately 91.8% rated their overall experience as "Good" or better. Regarding the quality of ChatGPT responses, 48.6% of participants found them very realistic, while 29.7% considered them extremely realistic. Additionally, 51.4% felt that history taking with ChatGPT was somewhat better

than role-playing with peers. A total of 67.6% of respondents reported that using ChatGPT for history taking improved their ophthalmic history-taking skills with patients. Notably, 75.7% recommended using this approach to train future optometry interns.

Conclusion:
ChatGPT-assisted history-taking is a feasible and effective supplement to peer-based learning in optometry education, enhancing student confidence in history taking. Its flexibility supports self-paced, remote learning, making it well-suited for online education. Further research should explore the long-term outcomes.

Takeaway Message:
ChatGPT-assisted role-playing offers a realistic, flexible, and effective supplement to traditional peer-based training in ophthalmic history taking for optometry students. It enhances student confidence in history taking, supports self-directed learning, and holds strong potential for integration into future educational strategies.

ABSTRACT ID:
ORF-EDT02

Exploring the Components of Emotional Intelligence (EI) for an Online Module for Medical Students: Insights from Medical Graduates and Lecturers

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[2]University Sains Malaysia, Malaysia
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Introduction:
Doctors frequently face stressful situations in their hospital routines, often encountering conflicts and issues that can escalate to violence. In this respect, strong empathetic and professional communication skills are becoming more essential for doctors to manage social interactions in a hospital environment effectively. In relation to this, the concept of Emotional Intelligence (EI) has gained significant importance in healthcare, emphasizing its necessity for health professionals. It has become vital for doctors to be trained in Emotional Intelligence (EI), but there is a lack of structured training materials and mechanisms available. Within the existing academic literature, there is lack of clarity about what content should be included in the training or what methods of intervention would be most effective for developing EI in healthcare professionals. The challenge is designing an effective, practical EI training program given these gaps. This study addresses these gaps and explores the components of Emotional Intelligence (EI) to inform the development of an online training module for medical students which can enhance empathetic and professional communication, reduce burnout, and develop better patient outcomes.

Research Aim:
This research aims to explore the component of Emotional Intelligence, for an online module that can be used to train the medical students.

Method:
A qualitative study design was employed using online focus group discussions (FGDs) with 15 graduated medical students and online interviews with 14 lecturers. Data were analysed thematically to identify core components of EI from both student and lecturer perspectives.

Results:
Thematic analysis identified key components of EI: self-management, empathy, self-awareness, social awareness, emotional resilience, and relationship management. Differences in student and lecturer perceptions provided nuanced insights for module design, balancing theoretical and practical approaches to EI training.

Conclusions:
The study highlights the relevance of EI in medical education and its potential to address stressful situations, issues and

Takeaway Message:
Training in Emotional Intelligence is essential for preparing medical students to handle the emotional and interpersonal demands of clinical practice. This study identifies core EI components—such as empathy, self-awareness, and relationship management—that can inform the development of an evidence-based online module to foster empathetic communication, reduce burnout, and improve patient care.

ABSTRACT ID:
ORF-EDT03

Shortcut to Knowledge or Shortcut to Thinking? Investigating AI-Induced Metacognitive Laziness in Future Doctors

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Introduction:
Doctors frequently face stressful situations in their hospital routines, often encountering conflicts and issues that can escalate to violence. In this respect, strong empathetic and professional communication skills are becoming more essential for doctors to manage social interactions in a hospital environment effectively. In relation to this, the concept of Emotional Intelligence (EI) has gained significant importance in healthcare, emphasizing its necessity for health professionals. It has become vital for doctors to be trained in Emotional Intelligence (EI), but there is a lack of structured training materials and mechanisms available. Within the existing academic literature, there is lack of clarity about what content should be included in the training or what methods of intervention would be most effective for developing EI in healthcare professionals. The challenge is designing an effective, practical EI training program given these gaps. This study addresses these gaps and explores the components of Emotional Intelligence (EI) to inform the development of an online training module for medical students which can enhance empathetic and professional communication, reduce burnout, and develop better patient outcomes.

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reduce burnout, and improve patient care.

ABSTRACT ID:
ORO-EDT04

Exploring the Digital Competencies of healthcare educators: A Framework-Based Qualitative Study

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Introduction:
In an era of rapid digital transformation, healthcare education is increasingly reliant on digitally competent educators. Clinical educators must demonstrate digital competence not only in teaching but also in patient care and communication. Existing frameworks such as the Digital Competence Framework for Educators (DigCompEdu), Digital Health Communication Competency Framework (DigHealthCom), and UNESCO's AI Competency Framework for teachers offer useful guidance. This study aims to explore and assess the digital competencies of clinical educators using integrated parameters from competency frameworks. Our research questions are: How do clinical educators integrate digital tools into their teaching and clinical practice? And what are the strengths and gaps in digital competencies among clinical educators based on the frameworks?

Methods:
A qualitative, framework-based approach was used. Semi-structured interviews were conducted with clinical educators from both public and private institutions, including basic sciences and clinical teachers. Questions were asked to assess their perceptions, experiences, and preparedness in utilizing digital tools for teaching and learning. Thematic analysis revealed six major themes.

Results:
Participants expressed varying levels of confidence and competence, with challenges including lack of training, inconsistent institutional policies, and limited access to digital resources. Basic sciences educators were more confident in using structured tools such as LMS platforms and interactive apps, while clinicians tended to use WhatsApp, PowerPoint, or emails with limited integration into teaching practices. Particularly deficient areas were student assessment and empowerment.

Conclusion:
Given the varying levels of confidence and competence, the findings emphasize the need for targeted professional development tailored to both basic sciences educators and clinicians. The study highlights the significant gap in existing digital competence frameworks for healthcare educators, particularly in recognizing the unique challenges clinician-educators face in balancing teaching with patient care. These insights can guide educational leaders in creating more inclusive, practical frameworks that foster effective digital competencies across all areas of healthcare education.

Takeaway Message:
The digital competencies of health educators differ widely, particularly deficient are the clinical educators. There is a dire need to develop competency frameworks according to the unique needs of clinical educators.

ABSTRACT ID:
ORF-EDT05

Intrinsic motivation between face-to-face and blended learning in surgical clinical education

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Background &Objective:
The variability and opportunistic nature of surgical clinical education is the main problem for effective teaching and training of medical students. Incorporating online mediums including discussion forums interactive videos/ scenarios, static pages and quizzes is known as blended learning (BL). This study aimed to compare the intrinsic motivation of surgical students enrolled in blended learning to those enrolled in face-to-face teaching(f2fteaching).

Methods:
Aquasi-experimental, cross-over study was conducted in Surgical Unit-I and Surgical Unit-II of a private Medical University. A total of 31 students participated and were exposed to two different teachings. For the first four weeks, Group A was posted in Surgical-I (f2fteaching) and Group B in Surgical-II (BL). Both groups were taught the same contents with the same schedule. The F2Fgroup had clinical exposure to real patients, and small group discussions (SGDs) while the BLgroup students were exposed to an additional online learning component. Intrinsic Motivation Inventory (IMI) was administered at the end of four weeks and groups were swapped. Exchanged groups were again taught the same contents with the same schedule for another four weeks and IMI was administered.

Results:
Fifty-eight students completed IMI; 28 inf2f and 30 in BLgroup. There was a significant difference in all four subscales of IMI between the two groups. In three subscales, students in BL were more motivated as compared to f2f ($p<0.01$). Students in f2f experienced more perceived tension than in BL($p<0.048$).

Conclusion:
This study concluded that blended surgical learning programs keep medical students more intrinsically motivated to learn. By utilizing online learning, superior educational opportunities for students can be cultivated. It can result in enhanced faculty effectiveness and efficiency as well.

Takeaway Message:
The Blended Learning methods might be superior in comparison to face-to-face teaching alone, even in the setting of a skill-based curriculum like surgery with enhancement in motivation and performance along with great acceptance of students

ABSTRACT ID:
ORF-EDT06

Enhancing Anatomy Education Through Gamification: Development and Validation of Anatomy Cluedo

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Background:
Traditional lecture-based anatomy teaching has been criticized for poor knowledge retention and low student confidence. Evidence suggests that game-based learning enhances engagement, critical thinking, and the practical application of anatomical knowledge. This study aimed to design and validated a gamified tool—Anatomy Cluedo—to improve anatomy education, particularly in teaching cranial nerves.

Methods:
A mixed-methods approach was adopted at Shalamar Medical and Dental College. Initial focus group discussions (FGDs) with students and faculty explored perceptions of game-based learning. Insights from these sessions informed the design of Anatomy

Cluedo, a board game tailored to anatomical content. Expert feedback was gathered using a modified Delphi technique. Game content was validated through Item-Content Validity Index (I-CVI), Content Validity Ratio (CVR), and Scale-Content Validity Index (S-CVI/Ave). Cognitive interviews and direct observations supported construct validation, while user engagement was assessed using the Flow Short Scale (FSS). A pilot study measured cognitive learning outcomes using pre- and post-test comparisons, analysed with the Mann-Whitney U test. Correlation between engagement and learning outcomes was explored using Spearman's correlation.

Results:
FGDs revealed dissatisfaction with passive teaching methods and a strong preference for interactive, gamified approaches. Expert validation showed high agreement on the game's relevance and educational value (I-CVI and S-CVI/Ave > 0.8). Cognitive interviews confirmed improved engagement, better retention, and enhanced critical thinking. FSS results supported the game's ability to sustain focused attention and enjoyment. The pilot study demonstrated a statistically significant improvement in post-test scores ($p = 0.002$). Positive correlation between engagement and learning outcomes emphasized the importance of aligning content with immersive delivery.

Conclusion:
Anatomy Cluedo is a validated, cost-effective educational tool that addresses gaps in conventional anatomy teaching. It significantly improves student engagement and learning outcomes, especially in complex areas like cranial nerve anatomy.

Take-home message:
Gamified tools like Anatomy Cluedo promote active learning, knowledge retention, and clinical readiness. They present a viable, engaging alternative to lecture-based teaching, enhancing both student experience and educational effectiveness.

ABSTRACT ID:
ORF-EDT07

Development of a Faculty-Focused App for Assessment Analytics and On-the-Job Learning

Ho Ket Li, Er Hui Meng
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Background:
Item analysis is vital for ensuring assessment quality. It involves generating and interpreting metrics based on Classical Test Theory (CTT) and/or Item Response Theory (IRT). CTT supports analysis of item difficulty, discrimination, and reliability, while IRT offers deeper insights by modelling the relationship between student ability and response probability. These approaches help identify flawed items and unusual response patterns. However, many faculty members lack user-friendly tools or confidence to interpret such data, especially across varied formats like MCQs, SAQs, and OSCEs. To address this, we developed Item Analysis-IMU, a Shiny app designed to support item analysis and encourage pedagogical reflection.

Methods:
Guided by the ADDIE framework (Analysis, Design, Development, Implementation, Evaluation), the app was developed by a multidisciplinary team with expertise in health professions education, assessment, statistics, and IT. Developed using the R programming language, the app features key item metrics alongside embedded guidance for interpretation, decision-making, and reflection to support on-the-job learning.

Results:
The app generates item metrics immediately upon data upload. Outputs were validated by comparing them with conventional calculations using historical datasets. An internationally recognised assessment expert independently reviewed the app's usability and validity. Based on feedback, enhancements were

made especially to interpretive support and prompts for reflective assessment design. The app is currently in pilot testing with faculty from various health professions education institutions.

Conclusion:
Item Analysis-IMU offers a practical tool for faculty to conduct robust assessment analytics while supporting self-directed professional development. By integrating CTT and IRT, it promotes evidence-informed assessment and strengthens educators' capacity to make data-driven decisions.

Takeaway Message:
Empowering educators with accessible, user-friendly tools for assessment analytics can significantly enhance both the quality of student assessments and faculty development. By integrating item analysis with embedded learning features, this innovative Shiny app not only simplifies complex data interpretation but also promotes on-the-job learning, fostering a culture of evidence-based assessment and continuous improvement in health professions education.

ABSTRACT ID:
ORF-EDT08

Smart Phone Based Obstetric Tele-Mentored Ultrasound Performed Through Filipino Medical Students

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[1]Ateneo School of Medicine and Public Health, Philippines
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Background:
Maternal and neonatal mortality remain major challenges, especially in geographically isolated and disadvantaged areas (GIDA) where access to obstetric ultrasound is limited due to a lack of trained personnel. Tele-ultrasound, particularly real-time mentored tele-ultrasound (RTMTUS), offers a promising solution. This study assessed the feasibility of smartphone-based obstetric tele-mentored ultrasound performed by medical students without prior ultrasound training.

Methods:
A single-blinded randomized controlled trial was conducted with 48 medical students from a private medical school in the Philippines. Participants were divided into a guided group, receiving real-time mentorship from an obstetric sonologist, and a non-guided group, performing scans independently after online training. All underwent two sessions of online training before scanning a simulation model (HANA MW48). Performance was evaluated using a checklist, and pre- and post-tests measured knowledge gains. Statistical analysis included Mann-Whitney U, Chi-square, and paired t-tests.

Results:
The guided group achieved significantly higher accuracy in ultrasound technique, image interpretation, documentation, and decision-making ($p < 0.05$). No significant difference was noted between groups in identifying fetal heart activity, presentation, and number. Slightly better, though not statistically significant, performance was seen in placental location and amniotic fluid assessment. All participants showed significant knowledge improvement after training ($p < 0.0001$).

Conclusion:
Smartphone-based obstetric tele-mentored ultrasound is feasible and effective for training inexperienced medical students. Real-time expert guidance significantly improves scan quality, especially for complex diagnostic tasks. This method has potential to expand obstetric ultrasound access in underserved areas. Further research is needed to explore its application among midwives and rural healthcare workers.

Takeaway Message:
Real-time, smartphone-based tele-mentored ultrasound can effectively train medical students with no prior experience, improving scan accuracy and expanding access to obstetric care in underserved areas.

ABSTRACT ID:
ORF-EDT09

AI-Enhanced Clinical Nursing Documentation and Human–Machine Collaboration: Balancing Efficiency and Critical Reflection

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Background:
Nursing students in clinical practicum often face difficulties integrating dynamic patient health data with theoretical knowledge, leading to delayed or imprecise clinical judgments. ChatGPT, a large language model, provides real-time, structured feedback that can expand decision-making and improve documentation efficiency. However, its output accuracy is variable, occasionally omitting critical information or producing errors, which may foster learner dependency and cognitive offloading risks.

Methods:
This study retrospectively explores nursing students' experiences using ChatGPT for documentation support. Semi-structured interviews were conducted with fourteen undergraduate nursing students during internal medicine and surgical practicums who used ChatGPT for clinical documentation; transcripts underwent qualitative content analysis with open and axial coding to merge original sub themes—guidance, structure, efficiency, reflection, prompt clarity, reliability, and dependency—with three new core themes into a comprehensive analytical framework.

Results:
Three core themes emerged:

1. Structured Guidance and Efficiency Enhancement: ChatGPT provided systematic documentation frameworks and specific care recommendations, significantly accelerating workflow.
2. Critical Reflection and Prompt Clarity: Feedback stimulated deeper clinical reasoning and highlighted the necessity of precise prompt formulation; group peer review of ChatGPT suggestions strengthened theory–practice integration.
3. Reliability Constraints and Dependency Risk: Occasional omissions or inaccuracies aligned with cognitive offloading phenomena and could undermine students' autonomous language organization and clinical decision-making.

Conclusions:
While ChatGPT effectively structures and expedites nursing documentation and fosters critical reflection, its variable reliability and potential for over reliance necessitate targeted educational strategies—such as prompt engineering training, blended practical exercises, and collaborative review—to optimize human–AI collaboration without compromising professional autonomy.

ABSTRACT ID:
ORF-EDT10

Satisfaction with interactive medical microlearning videos among young learners: construction and piloting of a questionnaire

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Background:
Micro-learning refers to an educational approach that delivers content in small,

focused units that cover specific topics and are typically completed in three to 10 minutes. The content is often presented as short videos. However, there is no way of measuring learner satisfaction with these presentations. We developed a questionnaire for measuring satisfaction and used it to assess videos prepared by our clinical departments.

Methods:
We used standard methods for developing and validating the questionnaire: construct identification, item generation, focused group discussions, checks for structure, face and content validity, and pre-testing (10 learners). Finally, with 12 identified items, we administered the questionnaire to young learners (Semester 9 to housemen). The data from completed questionnaires was tested for validity.

Results:
We obtained 128 responses for 10 different microlearning presentations. The minimum responses to a presentation were 7, the maximum was 32. The questionnaire showed excellent internal reliability (Cronbach's alpha = 0.916). Deletion of any item did not improve the alpha. The KMO value was 0.9, indicating adequate sampling for validity checks, and Bartlett's test showed $p<0.001$, confirming suitability for exploratory factor analysis. The scree plot suggested a maximum of two domains. The extracted factors explained an acceptable 61% of the construct. Using this 12-item questionnaire to measure the videos, the satisfaction was independent of duration of the video, and higher with surgical-based videos than with medical-based videos (mean score 51.9 vs 46.6, independent samples $t = 4.8$, $p<0.00001$). Regression showed that changing from medical to surgical cases would raise the score by 5.3 points (95% CI 3.1, 7.5).

Conclusion:
The developed questionnaire shows excellent validity and can be used for measuring learner satisfaction with microlearning videos. Satisfaction with microlearning presentations is independent of duration. Surgical presentation had more liking

Takeaway Message:
The 12-item questionnaire is a reliable and valid tool for measuring learner satisfaction with microlearning videos. Using this tool, the study found that while video duration doesn't impact satisfaction, surgical-based video content leads to significantly higher satisfaction levels compared to medical-based content, warranting further exploration into the reasons behind this preference.

ABSTRACT ID:
ORF-EDT11

Strengthening the Foundations of Adaptive Learning: Technology-Enhanced Anatomy Instruction and Its Influence on Curiosity, Motivation, Resilience and Growth Mindset

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Background:
Developing Master Adaptive Learner (MAL) characteristics—such as curiosity, motivation, growth mindset, and resilience—is essential in preparing medical students to navigate the dynamic demands of medical education. This study aimed to evaluate the effect of a blended learning approach on enhancing these MAL traits among first-year medical students during anatomy instruction. The central research question addressed how technology-integrated learning environments influence the development of adaptive learning traits.

Methods:
A pre-post intervention study was

conducted involving 246 first-year medical students enrolled in an anatomy course. The instructional design adopted a blended learning format, integrating asynchronous digital modules delivered through a Moodle-based platform with synchronous in-person sessions. Online modules included interactive content and quizzes, while classroom activities emphasized small group discussions, Quizizz-based reviews, and game-based learning. MAL characteristics were assessed before and after the intervention using validated Indonesian-language instruments: the Curiosity and Exploration Inventory-II, the short-form Academic Motivation Scale, the Growth Mindset Scale, and the Connor-Davidson Resilience Scale. Academic performance was evaluated through average anatomy scores at the end of the sessions.

Results:
Statistically significant improvements were observed in key MAL traits following the intervention. Curiosity increased ($p<0.01$), intrinsic motivation improved ($p=0.016$), extrinsic motivation decreased ($p<0.01$), and notable gains were recorded in both growth mindset ($p<0.01$) and resilience ($p<0.01$). The average anatomy score achieved by students was 76.41 (SD = 16.18), indicating satisfactory academic achievement.

Conclusion:
Blended learning strategies enriched with interactive technology and game-based elements can effectively nurture MAL traits among medical students. This approach not only enhances adaptive characteristics such as curiosity and resilience but also supports academic success, suggesting that technology-enhanced learning designs hold considerable promise for medical education reform.

Takeaway Message:
Integrating technology-enhanced and game-based strategies into blended anatomy learning effectively cultivates core traits of Master Adaptive Learners—curiosity, intrinsic motivation, growth mindset, and resilience—while also enhancing academic performance. This innovative approach offers a practical, scalable model for preparing self-directed and adaptable future physicians

ABSTRACT ID:
ORF-EDT12

Role of Learning Environment in Student Satisfaction and Academic Success: A DREEM-Based Study in a Newly Established Private Medical College, Islamabad

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This research investigates student perceptions of the learning environment in a newly established private medical college in Islamabad. Utilizing the Dundee Ready Educational Environment Measure (DREEM) questionnaire, we aim to assess student satisfaction across key domains: teacher, student, atmosphere, facilities, and overall satisfaction. The objectives include evaluating student perceptions, investigating the relationship between student satisfaction and specific aspects of the learning environment, identifying areas for improvement, and providing evidence-based recommendations to the college administration for enhancing the learning environment and improving student satisfaction. A cross-sectional design will be employed, utilizing the DREEM questionnaire to gather data from undergraduate medical students. The findings of this study are expected to provide valuable insights into student perceptions, inform evidence-based decision- making within the college administration, and ultimately contribute to the development of a more supportive and engaging learning environment, thus enhancing the quality of medical education and improving student outcomes.

Keywords:
Learning Environment, Student Satisfaction. Academic Success. Medical Education

Takeaway Message:
A purpose-built medical college with an integrated curriculum promotes a holistic learning environment, combining basic and clinical sciences for better knowledge retention and practical application. By ensuring student-centred teaching, faculty support, and a conducive academic atmosphere, such institutions can enhance student satisfaction, academic success, and professional competence in medical education.

ABSTRACT ID:
ORO-EDT13

The Generative AI Hawthorne Effect: How Evaluation Context Shapes Model Behaviour in Medical Education

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Large language models (LLMs) increasingly underpin generative AI (GenAI) tools used in medical education, from virtual patients to AI-powered tutors. However, emerging evidence suggests that these systems modify their responses based on inferred evaluative context, effectively becoming more 'virtuous', risk-averse, or emotionally intelligent when they believe they are being observed or assessed.

In this study, we investigated this phenomenon across three domains: mental health screening, emotional intelligence, and demographic representation. Using standardised instruments (e.g. PHQ-9, GAD-7, FANTASTIC), multiple LLMs were tested in naïve and informed conditions; the latter structured to reveal the evaluative purpose of the prompt. Across models and domains, scores shifted significantly toward socially desirable outputs when evaluation was inferred. For example, AI models underreported symptoms of anxiety and depression and emphasised health-promoting behaviours when prompted with a full questionnaire context. Similar context sensitivity was observed in tasks involving emotional attunement and racial representation, suggesting a generalisable "Hawthorne-like" effect in LLM behaviour.

These findings have critical implications for health professions education. When used to simulate patients, GenAI may produce more compliant, courteous, or 'textbook' cases if it detects that performance is being evaluated. When used to simulate clinicians or peers, it may perform with exaggerated emotional intelligence or ethical alignment in observed conditions. These risks introducing an artefactual layer to simulation, reducing fidelity and masking important pedagogical challenges such as non-adherence, diagnostic uncertainty, or patient mistrust.

We recommend that educators critically appraise GenAI outputs in light of contextual sensitivity. Future tools should incorporate evaluation-blind modes, adversarial stress testing, and transparency in system prompting to safeguard against distorted behaviours under scrutiny.

ABSTRACT ID:
ORO-EDT15

Printed or Pixel? Evaluating the Impact of Reading Medium on Student Learning, Memory, and Attention in Medical Education

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Background:
As digital content becomes the norm in academic settings, the debate over the efficacy of eBooks versus printed books continues. This study explores how reading formats

affect memory retention, attention span, and cognitive performance among senior medical and dental students.

Methods:
A randomized crossover study was conducted on 180 final-year MBBS and BDS students. Participants were exposed to identical academic content using eBooks and printed books across two study sessions. Attention was measured using the Mindful Attention Awareness Scale (MAAS), working memory through the Wechsler Digit Span Task (forward and backward), and cognitive load via NASA-TLX. A 24-hour delayed comprehension and retention test followed each session. Preferences were assessed through a structured survey.

Results:
Students reading printed books performed significantly better in the Wechsler Digit Span Task (forward span: 7.8 ± 1.1, backward span: 6.2 ± 1.0) compared to eBook users (forward: 6.5 ± 1.3, backward: 5.1 ± 1.2; $p < 0.001$). Retention test scores were also higher in the print group (74.6% ± 8.2%) than the eBook group (67.1% ± 9.3%, $p = 0.002$). Attention scores favoured print (MAAS mean = 4.1 ± 0.5 vs. 3.5 ± 0.6; $p = 0.01$), and cognitive load was significantly lower with print (NASA-TLX: 42.3 vs. 56.7). Preference data showed 68% of students favour printed books for sustained academic reading.

Conclusion:
Printed books offer superior outcomes in memory recall, attention span, and cognitive load in medical education settings. Despite the convenience of eBooks, traditional print retains pedagogical advantages that support deeper learning and better retention.

Takeaway Message:
While eBooks are convenient, printed books provide a cognitive edge—boosting memory, focus, and retention in medical students. Blended strategies may help harness the best of both worlds.

ABSTRACT ID:
ORF-EDT16

Empowering the future workforce: Building a foundational understanding of Artificial Intelligence among undergraduate students

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Background:
As artificial intelligence (AI) continues to reshape both educational and industrial landscapes, the demand for AI-literate workforce is rapidly growing. AI literacy is a set of competencies that enables individuals to evaluate AI technologies critically, communicate effectively with AI, and confidently use AI tools. It is the responsibility of higher education institutions to be proactive and equip the students with the necessary knowledge in AI and the skills to use it ethically and effectively in the workplace. While AI is accessible to all, the knowledge about how to use it effectively as well as ethically needs to be imparted to the students. This is in alignment with the Malaysian National Guidelines on AI Governance and Ethics. With the objective of empowering the students to equip themselves with working knowledge on AI, we set out to create new modules on the basics and applications of AI.

Method:
A working group was formed bringing together faculty with experience in AI to brainstorm and identify key areas for undergraduate education. Two modules were designed on the fundamentals & applications of AI and data visualization. The first module provides the basic understanding of AI and how it can be used while the second module gives hands-on training on few applications focusing on data processing and presentation. The curricula

were crafted with current technological demands and workforce expectations in mind. Emphasis was placed on interdisciplinary applicability, real-world case studies, and practical problem-solving using open-source tools guaranteeing that students acquire both theoretical knowledge and practical skills.

Results:
The two modules on AI are ready to be accessible across disciplines to all students and carry credits to be included in their curricula. This initiative represents a step toward bridging the digital skills gap and fostering AI-ready graduates equipped for the evolving job market. The first module would enable students to understand the basic concepts, techniques, working principles of AI and its application in real world while the second module would enable the students to understand the principles of data visualization and be proficient in using different tools to analyze and present data. We aim to achieve strong student engagement and a marked improvement in AI awareness and readiness to apply these skills in academic and professional contexts to align with current industry needs.

Conclusion:
This paper presents insights into curriculum development, pedagogical strategies, challenges in integrating emerging technologies into traditional undergraduate education, and the broader implications for workforce readiness in the AI era.

ABSTRACT ID:
ORF-EDT17

Developing a Centralised Feedback System to Foster Self-Regulated Learning: Faculty Views on Usability and Impact

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Background:
Student engagement with feedback is a recognised driver of academic success. The ability of students to actively seek, interpret, and apply feedback is a cornerstone of effective learning and professional development in health professions education. However, feedback-seeking behaviour remains underdeveloped among many students, often due to fragmented feedback processes and limited feedback literacy. In this study, a centralised digital feedback system was designed and developed to streamline feedback from multiple sources such as peers, tutors, mentors, and self-reflection into a unified, accessible platform. The faculty views on user experiences and perceived benefits, particularly on feedback-seeking behaviour, self-regulation, and academic motivation were explored.

Methodology:
The platform has been designed to enhance accessibility, encourage ongoing reflection, and support personalised learning trajectories. The application enables structured feedback collection from various sources into a single, secure platform. Key features include categorised dashboards, longitudinal tracking, real-time notifications, and an intuitive interface for both students and faculty. Based on preliminary input from early testers, an AI-based summarisation tool was integrated to synthesise multiple feedback entries into concise, student-friendly summaries.

Results:
Preliminary findings showed that the centralized feedback tool could facilitate the consolidation of feedback from multiple sources, enabling students to view and compare feedback across time, sessions, and contributors. This structure could support better feedback literacy, goal-setting, and academic self-monitoring. This enhancement with AI summarisation tool could address the challenge of cognitive overload and improve students' ability to act on feedback efficiently.

Conclusion:
The faculty perceived that the application could benefit both students and faculty by creating a unified feedback ecosystem that supports timely, structured, and reflective learning. As a scalable and practical digital solution, the tool holds promise in fostering a feedback culture that is continuous, student-centred, and data-informed across health professions education.

Takeaway Message:
Integrating a centralised feedback system into health professions education can shift feedback from a passive to an active, student-driven process, empowering learners to take ownership of their growth, improve self-regulation, and cultivate life-long reflective practice

Faculty Development

ABSTRACT ID:
ORO-FDP01

Faculty Development for Sustainable Medical Education in Crisis- Affected Regions

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Background:
Medical education in crisis-affected regions, including conflict zones and areas impacted by natural disasters, faces severe disruptions. Students lack structured learning opportunities, while educators struggle to provide consistent instruction. Many professionals without formal teaching experience have stepped in to offer voluntary lectures, leading to an unstructured learning environment. To address these challenges, the UK-based Health Education Support Group (HESG) initiated a faculty development program aimed at standardizing medical education and supporting educators through structured training, mentorship, and peer feedback.

Method:
The faculty development program employs three core strategies:

1. Recorded Teaching Sessions – Ensuring flexibility and accessibility of content through online resources.
2. Experiential Teaching – Encouraging educators to apply feedback iteratively to refine teaching methods.
3. Community of Practice – Establishing a peer-support network to enhance instructional quality and resource sharing.

Results:
The program achieved Kirkpatrick's Level 4 evaluation, demonstrating the effectiveness of a structured curriculum in crisis settings. Faculty members successfully reinstated formal teaching practices, and there was a growing demand for program expansion. The initiative provided a scalable framework to develop structured curricula, ensuring educational continuity and supporting healthcare workforce development in affected regions.

Conclusion:
This faculty development initiative plays a crucial role in restoring professional identity, standardizing teaching methodologies, and ensuring the continuity of high-quality medical education in crisis-affected areas. Its cost-effective and scalable nature makes it a viable model for broader implementation in similar challenging environments.

Takeaway Message:
Empowering educators through structured faculty development is essential for safeguarding medical education in crisis-affected regions—an investment that strengthens health systems, supports professional resilience, and ensures long-term humanitarian impact.

ABSTRACT ID:
ORF-FDP02

Experience of Junior Educators in an Advanced Eye Care Centre following a Faculty Development Training Program

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Background:
This study aimed to explore the experiences of novice clinical educators who completed a four-month faculty development program, focusing on their support needs and academic strategies. Despite the importance of such training, research on this subject is limited

Methods:
A total of 20 junior educators were selected for structured one-on-one interviews. Sixteen interviews were completed, consisting of five males and eleven females. Four educators were excluded due to scheduling conflicts, departure from the organization, or failure to provide a timely response. All had completed the 'Consuming Knowledge Consciously' (CKC, a faculty development program) and had over a year of experience teaching optometry students and vision technicians. The interview transcripts were analyzed to identify themes related to teaching motivations, challenges, and personal aptitude for education.

Key themes identified:
Transition to active learning methods; improved teaching and clinical skills; program challenges; mentorship and support; student impact/engagement; personal/professional growth; evidence-based practice integration; work-life balance; compensation; initial hesitations; emotional intelligence in teaching; leadership and teamwork skills; feedback mechanisms; program innovations; career planning; gender dynamics; professional networks; long-term CKC vision.

Results:
The analysis revealed that while the educators initially lacked confidence, they developed key competencies over time through the CKC program and mentorship. Educators have utilised various methods, such as role-play, inquiry-based learning, and the KWL method, to increase student engagement and collaboration. Challenges included teaching complex topics, addressing difficult questions, and managing time, with senior mentors providing vital support. The CKC program fosters reflective learning, critical thinking, and personal growth in communication. However,

educators face logistical challenges such as limited teaching spaces and resources.

Conclusions:
The CKC program helped educators transition toward interactive, student-centered teaching, improving their confidence and effectiveness. Despite challenges such as resource limitations, the program supported the creation of dynamic, collaborative learning environments essential for clinical practice preparation.

ABSTRACT ID:
ORF-FDP03

Conflict Management Diversity among Faculty in a Private Medical University of Pakistan

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Background:
Conflict management is essential for fostering a productive academic environment. Understanding the diverse conflict management styles among health educators can enhance teamwork and institutional efficiency. This study aimed to evaluate the prevalence of different conflict management styles among faculty at a private medical university in Pakistan.

Method:
A cross-sectional study was conducted at Foundation University Islamabad, from May to July 2024. Faculty members from MBBS, BDS, Physical Therapy, and Nursing programs participated. Data was collected using a validated self-reported questionnaire, including demographic details and the Rahim Organizational Conflict Inventory-II. Descriptive statistics were calculated, and Chi-square tests were used to assess associations between categorical variables. The Shapiro-Wilk test evaluated the normality of experience, and due to non-normal distribution ($p < 0.001$), the Kruskal-Wallis test was applied.

Results:
The study included 130 faculty members, predominantly female (78%). Among the five conflict management styles, the collaborative style was most frequently used (66%), followed by avoiding (16%), compromising (13%), and accommodating (5%). None of the participants reported using the competing style. Significant associations were found between conflict management style and age ($p = 0.039$), experience ($p = 0.004$), and discipline ($p = 0.001$). However, gender ($p = 0.203$), education ($p = 0.417$), and designation ($p = 0.262$) showed no significant influence on conflict management preferences.

Conclusion:
Health educators primarily adopt a collaborative conflict management style, fostering teamwork and mutual understanding. Avoiding and compromising styles are less frequently preferred, while the competing style is absent. Age, experience, and discipline significantly influence conflict management preferences, whereas gender, education, and designation do not. These findings highlight the importance of tailored professional development programs to enhance conflict resolution skills among faculty.

Keywords:
Conflict, Conflict management style, Diversity, Education, Faculty, Health educators.

Takeaway Message:
Encouraging a collaborative conflict management style can enhance teamwork and institutional effectiveness. Faculty development programs should focus on refining conflict resolution skills, considering factors such as age, experience, and discipline, while acknowledging that gender, education, and designation do not significantly impact conflict management preferences.

ABSTRACT ID:
ORF-FDP04

Effectiveness of a Visual Thinking Strategies Facilitator Training Workshop for Enhancing Educator Skills and Acceptance

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Background:
Visual Thinking Strategies (VTS) have gained popularity worldwide as an educational method to foster observation, critical thinking, empathy, and communication skills for medical professionals. Effective implementation relies heavily on teachers facilitating discussion through careful questioning and active listening. Therefore, training workshops are crucial for educators to master these skills. This study aimed to evaluate the effectiveness of a structured VTS facilitator training workshop in Taiwan.

Method:
The 2-hour VTS training workshop was led by a VTS expert from the United States and two local educators who had received previous VTS training. It consisted of a 40-minute introduction and experiential VTS demonstration, followed by one hour of guided VTS facilitation practice with four artworks, and concluding with a 20-minute large-group debriefing session. Thirty educators from various health professions participated in the workshop, none of whom had prior experience in VTS. Workshop effectiveness was assessed using the VTS Application Acceptance Scale (10-item, range 1-5) administered pre- and post-workshop, along with participant satisfaction ratings and qualitative feedback.

Results:
Participants demonstrated statistically significant improvement in their VTS Application Acceptance Scale scores from pre- to post-workshop (4.21±0.57 vs. 4.65±0.42, $p<0.001$), with statistically significant score increases observed across all 10 individual scale items. Additionally, participant satisfaction ratings averaged 4.93 out of 5. Qualitative feedback indicated that the training effectively enhanced participants' VTS facilitation skills, as well as their listening, empathy, teamwork, and leadership abilities.

Conclusion:
The structured VTS facilitator training workshop was highly effective in improving educators' readiness and skills to apply VTS techniques. It significantly increased educators' acceptance of VTS and had a positive impact on their broader interpersonal and leadership skills. Further implementation of such workshops is recommended to support educators' professional development and improve educational practices.

Takeaway Message:
A brief and structured VTS training workshop effectively enhances educators' facilitation skills and their acceptance of VTS methods. Participating educators not only improved their VTS techniques but also developed stronger interpersonal skills, including listening, empathy, teamwork, and leadership.

ABSTRACT ID:
ORF-FDP05

Evaluation of the Impact of a Faculty Development Program on Teaching Practices in a Medical School

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Background:
Evaluating the effectiveness of faculty development programs is critical for ensuring their sustainability and for driving quality enhancement. This preliminary study aims to examine the extent to which recent cohort of faculty members who completed the

Yeditepe University Faculty of Medicine Faculty Development Program (YEGEP) have transferred the knowledge and skills acquired to their teaching practices, based on Level 3 of the framework of Kirkpatrick's evaluation model.

Method:
A mixed-methods research design was employed in this study. Thirteen faculty members (54.2% response rate) from a total of 24 who completed YEGEP responded to a four-section semi-structured questionnaire measuring the transfer of program content to teaching-learning and assessment practices. The questionnaire consisted of 5-point Likert-scale items, multiple-choice questions, and open-ended questions. Quantitative data were analysed using descriptive statistics, while qualitative data underwent thematic content analysis.

Results:
79% of participants reported moderate to high levels of change in their teaching practices following the program. Notable improvements were observed in applying adult learning principles (67%), preparing assessment plans aligned with learning objectives (89%), and providing constructive feedback (78%). 56% of faculty members implemented various new assessment methods. Personal motivation (89%) and applicable program content (78%) were identified as the most significant facilitating factors, while time constraints (78%) and workload (67%) were the primary barriers to implementation.

Conclusion:
The findings suggest that YEGEP has resulted in significant behavioural changes in faculty members' teaching and assessment practices. Strengthening institutional support mechanisms, developing time management strategies, and establishing continuous monitoring-evaluation systems are recommended to enhance program impact. Data collection is ongoing for a more comprehensive evaluation.

Takeaway Message:
As medical education is very dynamic and requires continuous updates in parallel with changes in complex health systems, an effective medical faculty development program is crucial to empower the teaching staff to cope with this challenge.

ABSTRACT ID:
ORF-FDP06

Beyond the Degree: Alumni's Perceived Contribution of the Health Professions Education Programme to Personal Growth and Professional Development

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Background:
The health professions education programme is important to prepare educators educating health professionals to meet current and future challenges. Among the challenges are interprofessional practice, the changing nature of healthcare delivery and illness, education on social determinants of health, continuing education, a shift to competency-based time-independent education and increasing use of artificial intelligence and other technologies. Alumni as stakeholders can provide comprehensive information on a program's accomplishments, challenges, and values. They possess a unique combination of insights that program developers can utilise while making program improvement decisions. Whilst there is plenty of literature on the alumni's perception of health professions education programme, studies exploring the perceived contribution of the programmes to personal growth and professional development from developing countries are limited. Henceforth, theoretically guided by four psychological perspectives, namely, humanistic fulfilment,

psychodynamic changes, identity development and adaptive cognitive development, this study aimed to explore alumni perceived contribution of the health professions education programme to their personal growth and professional development.

Method:
The study employed a descriptive qualitative research design with the participation of nine alumni's who were purposefully sampled based on completion of health professions education programmes from different institutions. Individual interviews were conducted based on semi-structured interview questions. The Six Phases of Thematic Analysis (Braun and Clarke, 2006) were used to analyse the data.

Results:
The findings established two themes for perceived personal growth: 'development of personal skills and heightened self-efficacy as health professions educators'. Consequently, four themes emerged for perceived professional contribution: 'upgrading qualification and career progression', 'enhanced roles as facilitators and assessors', 'skills evolvement in curriculum design, delivery and assessment' and developing self as a health professions education researcher.

Conclusion:
This study highlights the significant role that health professions education programmes play in shaping both the personal and professional development of the alumni, The findings reveal that the programmes not only foster essential personal attributes like self-efficacy and interpersonal skills but also support substantial professional advancements, including academic progression, enhanced teaching competencies, and research capabilities. These insights reinforce the value of alumni perspectives in programme evaluation and underscore the need for ongoing, context-specific improvements to better equip future health professions educators for evolving healthcare landscapes.

Take-Home Message:
Health professions education programmes significantly contribute to alumni's personal and professional growth, particularly in developing countries. By enhancing self-efficacy, pedagogical skills, and research capabilities, these programmes prepare educators to meet the evolving demands of healthcare education. Alumni insights are therefore invaluable for continuous programme improvement and relevance.

ABSTRACT ID:
ORF-FDP07

Exploring Common Features and Contextual Gaps: A Comparative Analysis of Faculty Development Frameworks in Health Professions Education

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Background:
Faculty development frameworks (FDFs) are essential for advancing the teaching and leadership capabilities of educators in health professions education. However, existing frameworks vary in structure, focus, and implementation across different regions. This study investigates: the common features of existing FDFs, regional differences in their design, existing gaps, and how transfer of knowledge is evaluated. The aim is to identify best practices that can inform the development of context-relevant, effective faculty development frameworks.

Method:
A comparative analysis was conducted on FDFs published within the last ten years. Frameworks were sourced from peer-reviewed literature based on criteria including relevance to health professions education, structural clarity, and documented implementation. Data

were collected from original publications and related documents. The analysis involved open, axial, and selective coding, followed by the construction of a comparative matrix. Frameworks were examined across multiple dimensions: theoretical foundations, core components, implementation strategies, evaluation methods, and reported outcomes. Contextual and thematic analyses explored institutional and cultural influences. Quality assurance measures included triangulation of data sources and peer review of coding.

Results:
A preliminary Google Scholar search using six search terms: "Faculty Development framework", "Faculty Development model", "Continuous Professional Development Framework", "academic staff development model", "Faculty training framework" and "Faculty training model", for the period 2014–2025 yielded 1,311 publications. After applying the inclusion criteria, 62 documents were selected for further analysis. Preliminary findings indicate recurring features such as competency-based approaches, mentorship, and reflective practice. Variations were found in assessment strategies, feedback integration, and educator roles. Notably, most frameworks lacked consistent mechanisms for evaluating knowledge transfer and demonstrated limited focus on sustainability. Only a few included structured measures of post-training impact.

Conclusion:
This study highlights both shared and divergent features of FDFs. The findings provide valuable insights for developing adaptable, evidence-based frameworks to improve faculty development in diverse settings.

Takeaway Message:
Effective faculty development requires frameworks that are not only evidence-based but also adaptable to diverse educational and cultural contexts. This comparative analysis reveals that while many global frameworks share core principles, such as competency-based learning and mentorship, significant gaps remain in the areas of evaluation, sustainability, and measurement of knowledge transfer. By understanding these variations and gaps, institutions can design more responsive, context-sensitive faculty development programs that enhance educator effectiveness and ultimately improve health professions education.

ABSTRACT ID:
ORF-FDP09

Empowering Health Professions Educators: A Comprehensive Leadership Course

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Background:
Leadership skills are essential for educators who are involved in curriculum, course, personal and institutional management. The absence of leadership skills is often blamed for the failure of educational initiatives. Commonly cited reasons include lack of communication and engagement, inadequate support and guidance, and reluctance to embrace a collaborative and adaptive leadership approach. While faculty development programmes on teaching pedagogy, research and scholarship are well established, comprehensive leadership training is not regularly offered to the faculty at our institution. To address this gap, a four-day leadership course was designed and conducted, and its impact was evaluated.

Method:
In addition to leadership theories, the course emphasised practical applications, real-world sharing from prominent leaders and hands-on activities. These aimed to make the learning experience engaging, relatable, and directly

applicable to the participants' roles. The participants undertake a leadership exercise, observing and giving feedback to each other on their performance and team dynamics. The course also included a group task where participants applied their leadership knowledge to introduce potential education projects.

Results:
The course promoted self-reflection, fostering self-awareness about own leadership styles with a growth mindset. Their views on leadership shifted from a top-down to a collaborative approach. They appreciated that effective leaders serve as role models who demonstrate adaptability and resilience in navigating uncertainties and complexities. Emotional intelligence and empathy were essential for building collaborative relationships and leading effectively. The course's impact is evident in the progress of the proposed education projects. In four months, three of the five groups have made progress from ideation to planning and implementation of the education projects.

Conclusion:
The leadership course has broadened the perspectives of educators regarding leadership, emphasising the importance of transformational and situational leadership in fostering collaboration and individual well-being. The course successfully empowered the participants to confidently embrace academic leadership.

Takeaway Message:
A leadership course that incorporates practical applications, real-world sharing from prominent leaders, hands-on activities, group tasks and self-reflection empowers educators to embrace academic leadership with confidence and fosters collaboration.

Governance and Leadership

ABSTRACT ID:
ORF-GAL01

Senior Management of Medical Schools' Perceptions Regarding World Federation for Medical Education (WFME) Recognition of National Regulatory Bodies: A Qualitative Study

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Objectives:
This study aimed to understand how senior administrators at medical schools in Pakistan understand the World Federation for Medical Education (WFME) recognition of national accrediting bodies.

Design:
We conducted semi-structured interviews using a qualitative research design.

Settings:
Public and private medical schools across various provinces of Pakistan.

Participants:
15 key leaders including deans, principals, and vice chancellors of medical institutions.

Results:
The interviews unveiled four pivotal themes that profoundly influence leadership perspectives:

1. "Jumping on the bandwagon" – Highlighting the urgent need to follow international accreditation trends.
2. "The elephant in the room" – There are doubts and mistrust regarding the competence of local regulatory authorities.

3. "Any publicity is good publicity" – viewing accreditation more as a tool for institutional branding than genuine reform.
4. "Ripple effects" – Recognizing the wider, often unintended, consequences of pursuing recognition through institutional policies and faculty roles.

Conclusion:
Leaders normally regarded WFME recognition as a fundamental factor for their institutions' global competitiveness and graduates' career prospects. However, there's a concern that local regulators might not be as effective as they could be, and that there might be too much emphasis on just following the rules rather than making real changes. This could mean that the long-term benefits of accreditation might not be as great as they could be. For recognition to genuinely elevate educational standards, it must be accompanied by investments in local capacity development and systemic reforms.

ABSTRACT ID:
ORF-GAL02

To assess the impact of an Emotional Intelligence training program on Job Performance and Job-related Stress levels in Healthcare Professionals of Rawalpindi and Islamabad.

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Background:
Healthcare professionals (HCPs) face high-pressure environments where emotional intelligence (EI) plays a pivotal role in managing stress and enhancing job performance (JP). EI enables individuals to recognize, understand, and regulate emotions in themselves and others critical competencies in clinical settings. While Emotional Intelligence Training Programs (EITPs) are increasingly adopted globally, there is limited empirical evidence from low-resource countries like Pakistan. This study evaluates the impact of EITPs on EI, JP, and job-related stress (JS) among HCPs in Pakistan.

Methods:
A quasi-experimental study was conducted in two phases. In Phase 1, a cross-sectional survey assessed EI, JP, and JS levels among 165 HCPs from hospitals in Rawalpindi and Islamabad using validated questionnaires using convenient sampling. In Phase 2, a one-day EITP was conducted with a functional group of 12 HCPs drawn from the initial sample. Pre- and post-intervention scores for EI, JP, and JS were analysed using paired t-tests and Pearson correlations to evaluate the training's effectiveness.

Results:
Following the EITP intervention, notable changes were observed across all four components of emotional intelligence. Self-Emotional Appraisal (SEA) showed a slight decrease from 27.08 ± 5.33 to 26.08 ± 4.60, while Self-Emotional Management (SEM) improved significantly from 25.67 ± 6.85 to 31.25 ± 6.00. Social Awareness (SA) increased from 34.17 ± 3.43 to 37.17 ± 2.55, and Relationship Management (RM) rose from 31.92 ± 5.56 to 35.17 ± 4.32. EI scores post-intervention demonstrated a strong positive correlation with job performance ($r = 0.688$) and a moderate negative correlation with job-related stress ($r = -0.388$). An inverse relationship between JP and JS persisted ($r = -0.228$), reinforcing the role of EI in enhancing performance and reducing workplace stress.

Conclusion:
EITPs effectively enhance EI, JP, among HCPs, and reduction in JS leading to improved patient care.

Takeaway Message:
The study's implications extend to the broader healthcare industry, suggesting the potential benefits of incorporating EITPs into professional development initiatives to

promote well-being and effectiveness among healthcare professionals.

ABSTRACT ID:
ORF-GAL03

Regional Leadership in Global Medical Education: Hasanuddin University's Experience with Malaysian and Middle Eastern Medical Students

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Background:
Globalization in medical education is marked by cross-border academic exchange and collaborative training models. The Faculty of Medicine, Hasanuddin University (FMHU), has played a pivotal role in this movement by hosting international students in its undergraduate medical program. This study aims to explore FMHU's contributions to the globalization of medical education through its long-term involvement in training international medical students from Malaysia (1995–2015) and the Middle East (since 2021). The central research question focuses on how FMHU's internationalization strategies have supported the development of competent global physicians and the advancement of transnational medical education.

Method:
A retrospective, descriptive case study design was employed. Data were collected through institutional reports, graduate records, and curriculum documentation. Descriptive statistics summarized demographic and graduation outcomes of international cohorts.

Results:
Between 1995 and 2015, FMHU successfully educated over 600 Malaysian students under bilateral institutional agreements, with a graduation rate exceeding 90%. These students integrated into Malaysia's healthcare system with proven competencies. Since 2021, FMHU has expanded its global reach to students from the Middle East (primarily from Palestine, Jordan and Yemen), with 31 students currently enrolled. Findings highlight the strengths of a competency-based curriculum, cultural adaptability of the faculty, and the use of bilingual instruction as key enablers. Challenges included academic readiness and cultural adjustments, particularly in middle east cohorts.

Conclusion:
FMHU has demonstrated sustained commitment to international medical education through the structured integration of students from diverse backgrounds. Its contributions serve as a model of regional leadership in global health education, aligning with ASEAN and Middle Eastern educational cooperation initiatives. This experience emphasizes the importance of institutional adaptability, quality assurance, and cross-cultural pedagogy in fostering globalization in medical training.

Takeaway Message:
The Faculty of Medicine, Hasanuddin University (FMHU) learned that institutional adaptability is key to successful internationalization, requiring adjustments in curriculum delivery, administrative systems, and student services. Cross-cultural competence among faculty and the implementation of a bilingual, competency-based curriculum aligned with global standards enhanced educational relevance and student engagement. Long-standing partnerships, especially with Malaysian institutions, provided a foundation for structured international collaboration, while recent expansion to Middle Eastern students highlighted the need for formalized agreements and culturally responsive support. Tailored academic and psychosocial support systems were essential for international student retention and success. Continuous quality assurance through monitoring, alumni feedback, and outcome

tracking proved vital in maintaining academic excellence and responsiveness in a global educational context.

ABSTRACT ID:
ORF-GAL04

Leaders' Perspectives on Implementing a Reformed Curriculum Adapted from an International Medical School

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Background:
A curriculum is the foundation of any educational program. The traditional medical education model is being reformed by an emphasis on more integrated and competency-based model. The College of Medicine at Imam Abdulrahman Bin Faisal University (Kingdom of Saudi Arabia) moved to reform its undergraduate medical program (MBBS). The College leaders decided to adapt, integrated, competency and outcome-based curriculum from a distinguished institute in a developed country and to contextualize the curriculum locally. Implementation of such reformed curriculum brings challenges and different experiences. The aim of this study is to explore the experiences of the leading team during implementation of the reformed MBBS program, which was adapted from an overseas medical school.

Methods:
This qualitative study was informed by a phenomenological approach, in its aim to understand the lived experience of the participants, in the context of the College and work to reform the curriculum. Data collection involved semi-structured interviews with faculty who were leading the curriculum reform. Purposeful sampling was used. The interviews were digitally recorded and transcribed fully. Thematic analysis was used, and findings presented with supporting quotations

Results:
Eight full-time faculty members of who were in leadership position at the time of the curriculum reform participated in the study. Analysis of data revealed varied understandings, actions and experiences associated with the curriculum reform. Three main themes and six subthemes were generated. The main themes were 1. Leaders driving the initiation of the curriculum reform, 2. Sustaining the curriculum reform implementation: Leaders positive views of the adapted curriculum and 3. Implementation successes: leader's action, motivation and reflections on challenges. The main themes represent recurrent patterns across the participants' accounts.

Conclusions:
The qualitative study was appropriate to identify how the reform was initiated and implemented by leaders and surfaced the challenges they faced. They described the experience as complex and challenging. The challenges were mostly related to curriculum differences, adaption, early preparations, and faculty roles and overcoming resistance. Competency and outcomes-based education is now implemented widely. However, much remains to be done and challenges remain. This would confirm importance of sharing the experience.

Takeaway Message:
Implementing a reformed, competency-based medical curriculum adapted from an overseas institution presents both challenges and valuable learning experiences for academic leaders. Key challenges include curriculum adaptation, early preparation, faculty roles, and overcoming resistance. Despite these difficulties, the reform process fosters professional growth and aligns with global trends in medical education. Continuous

assessment, shared experiences, and ongoing improvements are essential for successful curriculum transformation.

ABSTRACT ID:
ORF-GAL05

Program Evaluation of Online versus Hybrid teaching using CIPP model at Private Medical School Lahore, Pakistan

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Background:
Evaluating undergraduate medical curricula is essential for ensuring their effectiveness and facilitating continuous improvement. This study aimed to compare the context, input, process, and output of the first-year MBBS curriculum during the COVID-19 pandemic (2019-20) and the para-COVID-19 period (2020-21), focusing on online and hybrid teaching models.

Methods:
A mixed-methods study was conducted at Shalamar Medical and Dental College in Lahore from April 2022 to April 2023. A committee of medical education experts, administrators, and the first-year chairperson reviewed the curriculum. A questionnaire survey and focus group discussions (FGDs) were conducted with first-year students from the 2019-2020 and 2020-2021 cohorts, which were recorded for analysis. Additionally, various educational materials including recorded lectures, guidebooks, planners, and assessment papers were examined. Comparisons were made regarding admission merit, module assessments, and professional examination results. The learning environment was assessed via the questionnaire, and facilities offered in both years were evaluated.

Results:
Qualitative data were analysed with NVivo software, while quantitative data were evaluated using SPSS version 23. The contextual analysis highlighted the necessity for online teaching during the COVID-19 pandemic, with the resources deemed adequate. Noteworthy support from the medical education department and faculty training initiatives were identified. For input, the student-faculty ratio was 3.8, and resources such as libraries, hostels, canteens, and digital resources were available. Faculty members were found to be knowledgeable and well-trained. The admission merit for the fully online cohort was superior to the hybrid cohort in 2020-21. Process analysis confirmed effective session delivery via webinars and Zoom, timely provision of study guides, and punctual assessments. The reliability of modular and professional examination papers was acceptable (Cronbach's alpha: 0.6-0.8) with a minimal difficulty index in key subjects. Nevertheless, students reported incidents of academic dishonesty during online assessments and expressed concerns regarding inadequate hands-on psychomotor sk

Takeaway Message:
Faculty should be trained on online teaching methods

Professionalism and Ethics

ABSTRACT ID:
ORF-PAE01

Workbook-Based Ethics Learning: an innovative approach for ethics education in diverse contexts

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Background:
Ethics is a core competency for graduating medical professionals. Yet, its integration into medical curricula remains a global challenge due to its inherently social nature and intricate relationship between cultural contexts and professional demands. These challenges are augmented in non-Western countries, where distinct sociocultural dynamics add complexity to ethics education. Context-specific content, sociocultural diversity, and politico-legal influences make its delivery highly nuanced and delicate. This paper presents the authors' experiences in addressing these challenges in Saudi Arabia and Pakistan by developing and implementing Workbook-Based Ethics Learning (WBEL), a novel educational strategy grounded in the Contextually Relevant Ethics Education Model (CREEM).

Method:
This WBEL was systematically developed and refined through expert consultations, pilot testing, and iterative feedback from students and faculty in Saudi Arabia and Pakistan to enhance its effectiveness, cultural relevance, and feasibility. Over the past decade, WBEL has been regularly implemented in both countries, with continuous improvements informed by diverse informal and formal feedback mechanisms.

Results:
WBEL has successfully provided a comprehensive framework for ethics education in Saudi Arabia and Pakistan, demonstrating adaptability across diverse cultural and educational contexts. Student and faculty feedback has been instrumental in enhancing its effectiveness in overcoming barriers to ethics education.

Conclusion:
By sharing insights and lessons learned, this work contributes to the global discourse on advancing context-sensitive ethics education, offering a model that can be adapted to various educational and cultural settings.

Takeaway Message:
Workbook-Based Ethics Learning (WBEL) offers a structured yet flexible approach to ethics education, addressing cultural and contextual challenges in non-Western settings. Its successful implementation in Saudi Arabia and Pakistan highlights the importance of contextually relevant, interactive, and continuously evolving teaching strategies.

ABSTRACT ID:
ORO-PAE02

Impact of Academic Intervention by workshops regarding plagiarism for using Chat GPT in a private medical college

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Background:
The increasing popularity of AI tools such as Chat GPT has heightened worries regarding academic plagiarism, allowing students to submit AI-generated material as if it were their own. This creates a major challenge for academic integrity and the proper evaluation of student knowledge. This intervention study

sought to create and assess an educational approach to improve students' understanding of plagiarism, especially in relation to Chat GPT, at Jinnah Medical and Dental College in Karachi.

Method:
An interventional academic study was carried out from May 2023 to October 2024 involving 317 MBBS students. A self-administered questionnaire was distributed both at the beginning of the study and 15 days following an interactive workshop titled "Awareness of plagiarism for using Chat GPT." The questionnaire included demographic information and 46 questions regarding AI usage, educator oversight, and the repercussions of plagiarism. The data was analysed using SPSS version 25, utilizing paired t-tests to compare pre- and post-intervention results and independent t-tests for assessing demographic relationships.

Results:
The research indicated a significant enhancement in the plagiarism awareness scores of students from before the intervention to after it (p-value <0.01). A significant portion (73.7%) concurred that materials generated by Chat GPT should be appropriately cited. Students who were younger (under 22 years old), day scholars, and those without previous research experience exhibited more considerable improvement. Notably, factors such as gender, internet usage, and GPA did not significantly affect the increase in scores. There was no notable distinction in post-intervention results between students who favoured or opposed the use of Chat GPT.

Conclusion:
Students' awareness of plagiarism in relation to Chat GPT was successfully raised by the intervention, and the majority of them acknowledged that accurate referencing is essential for evaluation fairness. The report emphasizes how urgently commissions and institutions of higher learning must establish explicit guidelines requiring the disclosure of AI tool use in scholarly work.

Takeaway Message:
Students' knowledge of AI-related plagiarism and the value of ethical referencing is much increased when they participate in focused seminars, which emphasizes the necessity of explicit institutional norms on AI disclosure.

ABSTRACT ID:
ORF-PAE05

Anchoring the change: A Transformative First Step in Identity of Medical Teachers after the First Face-to-Face Encounter in a hybrid HPE program

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Background:
Transformation in medical education requires a growth mindset, trainee development, and sustained faculty engagement. Practicing discernment for contextual framing, guided reflection, peer coaching, role modelling, community of practice, experiential learning, and mentoring, are candidate ingredients to design successful faculty development programs. The objectives of our study were to examine the initial process of professional identity transformation of medical educators after first face to face session of master's program in health professions education.

Method:
This qualitative study was conducted in Shifa School of Health Professions Education in Pakistan, wherein a mandatory task of guided reflective writing using Gibb's cycle, was given to participants of MHPE program, after first, four-day, face- to face session. Participants were medical teachers; 02 males and 14 females. There was great diversity in participants in terms of field of specialization, faculty position

and areas of living within Pakistan. Thematic analysis of reflective essays was conducted using Braun and Clerk six step approach.

Results:
Factors that promoted transformative learning were individual feedback and mentoring, peer collaboration, a supportive space for challenging discussions, real world relevance, and hands-on practice. Inspiring and motivating trainees made learning environment unconventional and act as role models. All these factors contributed to develop a culture of reflection, gave sense of belonging and inclusion to participants and promoted self-directed learning. The key processes identified in transformation were modelling, mentoring, reflection, and professional socialization.

Conclusion:
The first face to face session of our MHPE program successfully anchored the change in fewer aspects of professional identity of medical teachers by providing personalized learning, real world relevance to theoretical concepts, and experiential learning, in an unconventional, digitalized classroom where regular reflective exercises and self-directed learning was promoted, peer collaboration was ensured, an inclusion and sense of belonging was induced by mentoring, role modelling, reflections and socialization.

Takeaway Message:
Effectively designed faculty development programs can transform professional identity of educators provided discernment on contextual engagement of participants, and regular reflections are practiced, diversity enrichment of participants is ensured, personalized learning and experiential learning by feedback and mentoring is role modelled, peer collaboration, self-directed learning was promoted, and a conducive, unconventional learning environment was fostered where participants felt experienced sense of belonging and inclusion.

ABSTRACT ID:
ORO-PAE06

Behind the Black Box: Building Fair, Transparent, and Accountable AI in Medical Education

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The integration of artificial intelligence (AI) into assessment practices in Health Professions Education (HPE) presents a transformative opportunity to strengthen the accuracy, efficiency, and personalization of learning evaluations. AI-powered tools, including automated grading, intelligent tutoring systems, and predictive analysis, are reshaping how educators identify student needs and improve results. Ultimately, with innovation comes a critical need to address critical challenges, especially in a high-stakes assessment context.

This presentation explores the ethical implications of AI-driven assessments in HPE, emphasizing the need to balance technological advancement with the core values of transparency, fairness, and accountability. Through a case scenario and a comprehensive review of current applications, we spotlight risks such as algorithmic bias, privacy concerns, lack of accountability, and the exclusion of students with limited digital access. Additionally, the presentation points out how AI systems may misinterpret cultural variations, thus affecting student performance evaluation and trust in the educational systems. Based on recent research and international ethical frameworks, we propose applicable and effective strategies to ensure that AI-based assessments validate justice and inclusiveness. These strategies include diverse training data, explainable AI models, robust audit mechanisms, and human

oversight in decision-making. Importantly, this presentation recommends the development of frameworks that state clearly the roles and responsibilities, support the appeal processes, and ensure accountability. Finally, we advocate an ethical-by-design approach in AI assessment development, which requires collaboration between educators, students, developers, and policymakers. Incorporating ethical principles into AI deployment ensures the adoption of a fair learning environment and maintains public confidence in the competence and integrity of future health professionals.

Takeaway Message:
Incorporating ethical principles into AI deployment ensures the adoption of a fair learning environment and maintains public confidence in the competence and integrity of future health professionals.

ABSTRACT ID:
ORF-PAE07

Designing a Reflection based learning module to enhance Critical decision making in Ethical Dilemmas among Medical Students.

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Background:
Ethical reasoning and critical decision-making skills are the cornerstone for Professionalism. While undergraduate curriculum provides for a sound theoretical framework for medical Ethics, there are limited avenues for practical learning. This study attempts to develop, implement and evaluate a guided Reflection based learning module for undergraduate medical students to instil critical decision-making skill in ethical dilemmas.

Method:
A quasi-experimental, interventional study using a validated learning module incorporating problem-based discussions and guided reflective writing was conducted among 30 Undergraduate Medical Students after ethical clearance. The Module incorporated a training session on guided reflective writing, validated case vignette-based MCQ pre and post-test and three Problem based decision making exercise on ethical dilemmas and stakeholder feedback. Paired sample t-test was used to compare pre- and post-test scores to evaluate the effectiveness.

Results:
Post-test, 83% (N=24) of participants' scores increased by more than 30% ($p < 0.001$). Student Feedback analysis showed that 50% (n= 15) agreed the module improved their decision-making abilities. 63% identifies small Group discussions had the most educational impact in the module. Though 80% of the students approved the Guided reflections aided in decision making, 53% suggested it was time consuming and 41% recommended decreasing the number of questions. The participants (75%) felt that the module also helped improve their communication, decision-making skills, and interest in medical ethics. Faculty Feedback suggested 80% of the students actively engaged in the discussion indicating improved understanding. Only 50% of students reflected effectively with the guided questions.

Conclusion:
Integrating guided reflections and problem-based discussion efficiently developed critical decision-making capabilities in ethical dilemmas. Small Group discussions particularly proved to be impactful in allowing collaborative decision making. The guiding question format facilitated structured thinking for most students, but its practical utility may be enhanced by streamlining the number of questions.

Takeaway Message:
1. Structured Small Group Discussions significantly enhance critical thinking

abilities among students.
2. Guided reflections can efficiently support deep learning and aid decision making abilities.
3. Integrating dedicated learning modules in the curriculum provides students with an opportunity to practice decision making in a controlled environment.

ABSTRACT ID:
ORF-PAE09

Status of teaching and assessment practices of ethics and professionalism in undergraduate dental Institutes: A Pan-Pakistan survey

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Background:
With little empirical information and research available on how ethics and professionalism is being taught in undergraduate medical/ dental curricula in Pakistan, this study takes a closer look on the existing landscape and current practices in teaching ethics and professionalism in dental schools, highlights key gaps and unmet needs that require attention and addressal to better prepare students for prospective challenges as healthcare professionals.

Methodology:
An online, pan-Pakistan, non-probability sampling survey was conducted using Google Docs to evaluate the status of ethics education in Pakistani Dental Institutes using a pre-validated questionnaire by Lantz et.al (2011). The questionnaire had six domains; status of ethics as a stand-alone course, topics listed and organized, teaching and learning methods, assessment methods, use of one or more dental ethics textbooks, and elements affecting climate for ethics instruction.

Results:
A response rate of 62.2 % was achieved. 15% of the institutes reported offering a stand-alone ethics course. 81.3% of institutes had ethics instruction integrated in 2nd year of studies. Lectures, small group discussions and standardized patient instructions were the most common teaching methods employed by all dental institutes. A majority of the institutes reported multiple choice questions as the most used technique for assessment and role-plays and graded assay.

Conclusion:
Ethics & professionalism are being taught in a majority of undergraduate dental institutes in Pakistan with a general content aligned with educational mandates across the globe. Nonetheless a significant gap in instructional modes and modules between Pakistan and the world was observed in this study. The study reveals that Pakistani Dental institutes need to develop competency-evidence based curriculum, train educators, transition to interactive integrated and technology enhanced experiential educational practices, promote reflective and practice-oriented continuous learning, formative learning strategies that facilitate students' exploration of ethical, moral and professional complexities and appropriate behaviour assessment methods.

Key Words:
Ethics, Professionalism, Dental Institutes, Teaching and Learning, Pakistan

Take home message:
Despite significant advancements in taught ethics and professionalism courses in undergraduate dental education, the evolving nature of ethical challenges in dentistry necessitates adoption of integrated, student-centered and technology enhanced approaches. These include curriculum reforms, faculty development, student centered - formative and experiential learning.

The curricula are recommended to include self-evaluation & self-refinement hand-on activities

as not just one-time curricular requirement but an ongoing self-evaluation process to continuously uphold the highest standards of professional & ethical conduct

ABSTRACT ID:
ORF-PAE10

Ideological Influence in Healthcare Education: Balancing Social Accountability and Scientific Objectivity

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Background:
Healthcare curricula often reflect prevailing social, political, and religious ideologies, with uncertain effects on scientific objectivity and professional ethics. This study asked: How do dental practitioners perceive ideological influences in their education, and what impact do these influences have on notions of social accountability and scientific rigor?

Method:
Eight Pakistani dentists participated in semi-structured interviews built around five prompts examining ideological content in dental curricula. Transcripts were coded inductively using Braun & Clarke's six-step thematic analysis. A complementary sentiment analysis—validated by dual independent coders—classified each statement into four tonal categories (Concerned, Suggestive/Advisory, Skeptical, and Defensive). Word-frequency analysis and visualisations were produced with Python's NLTK, Matplotlib, and Luchidchart.

Results:
An overarching theme—"Ideological Influence in Healthcare Education: Balancing Social Accountability and Scientific Objectivity"—was supported by five sub-themes: (1) Balancing Act, (2) Bias and Omission, (3) Critical Thinking Under Pressure, (4) Inclusivity vs Imposition, and (5) Professionalism and Ethics. Sentiment analysis showed 40 % of statements were Concerned, 30 % Suggestive/Advisory, 20 % Sceptical, and 10 % Defensive. High-frequency terms included "healthcare," "education," "critical," and "bias," reflecting tension between ideological conformity and the need for evidence-based teaching. Participants reported episodes where ideological pressures led to selective content omission and reduced opportunities for critical discussion.

Conclusion:
Practitioners perceive ideological bias as a threat to scientific rigor and critical-thinking development in dental education. Transparent dialogue on ideology, structured critical-thinking exercises, and clearly articulated professional-ethics frameworks may help educators safeguard academic integrity while fulfilling social accountability mandates.

Takeaway Message:
Ideological bias can subtly erode scientific rigor and critical inquiry in healthcare education; sustaining professionalism and social accountability requires curriculum neutrality, transparent dialogue on ideology, and explicit critical-thinking scaffolds.

ABSTRACT ID:
ORF-PAE11

Professional Identity Formation in Undergraduate Medical Education in the Hierarchical and Collectivist Culture: A Scoping Review

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Medical education is a continuous process

that aims to produce healthcare professionals who provide high-quality, ethical care through professional identity formation (PIF). Given the contextual nature of PIF, we argue that sociocultural factors—particularly hierarchical and collectivist cultures prevalent in Global South societies—significantly shape this process. However, research on how PIF is conceptualized within these cultural contexts remains obscure. This scoping review seeks to explore PIF practices in Global South countries and analyse the influence of hierarchical and collectivist cultures on PIF. A comprehensive literature search was conducted across five electronic databases: PubMed, Springer Link, Scopus, Science Direct, and EBSCOhost. The search utilized relevant keywords, including 'undergraduate medical education,' 'professional identity formation,' 'hierarchical and collectivist cultures,' along with their synonyms. The search results underwent a systematic screening process, consisting of title screening, abstract screening, and full-text review. Our analysis of the included articles reveals that PIF in this context is defined as a complex and dynamic process of becoming a physician, shaped by both internal factors (such as motivation and values) and external factors (including sociocultural influences in learning environments). These factors significantly impact how students navigate professionalism dilemmas. However, the current literature on this topic is limited, highlighting the need for further research to explore the role of sociocultural factors in PIF. Such studies could pave the way for developing culturally sensitive approaches to PIF in undergraduate medical education.

Takeaway Message:
Professional identity formation (PIF) in medical education is a complex, context-dependent process shaped by both individual and sociocultural factors. In Global South countries, hierarchical and collectivist cultures significantly influence how students develop their professional identities and navigate professionalism dilemmas. However, current research in these settings is limited, underscoring the need for more studies to inform culturally sensitive approaches to PIF in undergraduate medical education.

ABSTRACT ID:
ORF-PAE14

From the Perspective of Nursing Students: A Phenomenological Exploration of Nursing Students' Patient Safety Competency and Educational Needs across Four Academics Years

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Background:
Patient safety is essential in nursing education and impacts the overall quality of healthcare globally. The World Health Organization (2011) and the QSEN framework (Cronenwett et al., 2007) highlight the importance of integrating patient safety skills into healthcare training, ensuring that future nurses can maintain high standards of safety and ethical practice. According to Farokhzadian et al. (2024) and Amsrud et al. (2015), despite international guidelines, research indicates that nursing students often feel unprepared to implement patient safety principles in clinical environments, particularly when safety training is fragmented, inconsistently delivered, or insufficiently prioritized. It is crucial to understand how nursing students in Pakistan perceive and experience patient safety during their education and clinical training. It is essential to identify patient safety competency gaps among nursing students.

Method:
This study employed a descriptive phenomenological design to explore the perceptions and experiences of Bachelor of Science in Nursing (BSN) students regarding patient safety competence and educational

needs. The focus group of nursing students was recruited from the first to fourth year through purposive sampling from selected nursing colleges in Rawalpindi, Pakistan. Each focus group comprises eight nursing students. A semi-structured interview guide informed by patient safety literature facilitated the discussions. Sessions were audio-recorded, transcribed verbatim, and analyzed using Braun and Clarke's (2006) six-phase thematic analysis, ensuring rigorous identification of core themes.

Results:
Thematic analysis revealed six central themes: (1) Exposure to clinical errors, (2) Nursing curriculum gaps and educational Needs, (3) Communication and error reporting barriers, (4) Medication and shift coordination, (5) Clinical standards and Aseptic Protocols, and (6) Ethical and holistic Patient Safety.

Conclusion:
Nursing students develop their safety competence, but significant educational gaps remain. There is an urgent need for a longitudinal and integrated patient safety curriculum that combines simulation, interprofessional collaboration, ethical training, and a non-punitive error-reporting culture to adequately prepare future nurses for safe, effective, and ethical practice.

Teaching and Learning

ABSTRACT ID:
ORF-TAL01

Medical Teacher-Student Perception of Translanguaging in English-medium Instruction (EMI) classes and Influential Factors of Teachers' Translanguaging Pedagogy: A Case Study of a Chinese Medical College

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Background:
Chinese universities have increasingly adopted English-medium instruction (EMI) in medical programs to cultivate globally competent healthcare professionals, yet this shift has highlighted significant linguistic and cultural challenges. Translanguaging pedagogy which accentuates the multilingual speakers' full linguistic repertoire for better communication, effectively addresses these challenges in medical education by leveraging students' multilingual resources (both L1 and L2) to enhance learning, interaction, and inclusivity, all of which are essential in complex medical disciplines.

Objectives:
To investigate 1) the perceptions of medical students and teachers on translanguaging in EMI classes, and 2) the influential factors of medical teachers' translanguaging use in EMI classes.

Method:
This study adopts mixed methods combining questionnaires, classroom observations and semi-structured interviews.

Results:
Quantitative data revealed overall positive attitudes among both teachers and students toward translanguaging in EMI classes. Teachers' use of translanguaging pedagogy—

both planned and spontaneous strategies—was most strongly supported in explaining key concepts and translating medical terms. Qualitative data revealed that while school EMI language policy and students' cognition played a role, teachers' translanguaging practices were predominantly driven by their professional judgment, specifically: ensuring accurate terminology expression, delivering systematic explanations of pathological mechanisms, and fostering rigorous clinical thinking.

Conclusion:
Both teachers and students in this study acknowledged the positive effects of translanguaging use in EMI medical classes. EMI teachers' translanguaging use was jointly influenced by school EMI language policy, students' cognition and their professional judgement to ensure better teaching effects. This study suggests that school policy makers should consider a more inclusive translanguaging policy, thus empowering teachers to adopt more effective translanguaging pedagogies in EMI classes and achieve better teaching efficiency.

Keywords:
translanguaging; English-medium instruction; medical education

Takeaway Message:
Both teachers and students acknowledged the positive effects of a certain amount of L1 use in EMI medical classes. For both policy makers and EMI educators, a more inclusive language policy may be considered in EMI classes to guarantee higher teaching efficiency in future.

ABSTRACT ID:
ORF-TAL02

Zero to Doctor: A novel initiative to prepare final year medical students for UKMLA

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Background:
The UK Medical Licensing Assessment (UKMLA) is a mandatory exam that all those who wish to practice medicine in the UK are required to pass from 2025.[1] However, existing evidence suggests variable preparation among students between medical schools, leading to anxiety, unpreparedness, and lack of assessment equity. [2]

Methods:
"Zero to Doctor" is a novel, peer-led UKMLA teaching programme developed by final-year medical students in collaboration with practising residents in the UK. Weekly sessions were conducted virtually over four months for all penultimate and final-year students. Quantitative and qualitative data were collected using pre- and post-session feedback questionnaires.

Results:
A total of 151 students attended the four-month course, with 129 filling out the questionnaire (85% response rate). 98% reported that the content reflected the UKMLA curricula, fostered clinical reasoning, and improved their theoretical knowledge and practical skills for safe practice as foundation

trainees. This is evident by self-rated knowledge scores improved significantly (pre-session median 4/6 [IQR 3-5]; post-session median 5/6 [IQR 5-6]; p<0.001). 94% rated the teaching quality as excellent/good, and 88% found it to be better than lectures delivered by the medical school faculty. 92% expressed interest in attending similar future sessions. Content analysis of qualitative responses highlighted participants' appreciation for interactive Q&As and actionable UKMLA preparation strategies.

Conclusions:
"Zero to Doctor" successfully addresses the inequity in UKMLA resources and preparedness, with strongly positive feedback and evident knowledge gain. We urge educational institutions to improve future graduates' preparedness through widening access to such programmes and evaluating their long-term impact on clinical competencies and UKMLA outcomes.

Takeaway Message:
The peer-led "Zero to Doctor" programme bridges UKMLA preparation gaps, improving students' knowledge (self-rated scores increased from median 4/6 to 5/6, p<0.001) and confidence, with 98% curriculum alignment and 94% rating teaching as excellent/good. Participants preferred it to traditional faculty-led teaching, valuing interactive strategies. Institutions should expand access to such equitable initiatives and assess their long-term impact on clinical competency.

ABSTRACT ID:
ORF-TAL03

Effect of feedback-integrated reflection, on deep learning of undergraduate medical students in a clinical setting

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Background:
Reflection supports self-regulated learning, while feedback enhances its effectiveness by guiding performance improvement. Together, they may better foster clinical reasoning and decision-making. This study addresses the question of whether feedback-integrated reflection enhances meaningful learning in undergraduate medical students compared to reflection alone, as measured by higher-order MCQ scores.

Objective:
To evaluate the impact of feedback-integrated reflection versus reflection alone on higher-order MCQ performance among undergraduate medical students in a gynecology clinical setting.

Methods:
A randomized controlled trial was conducted with 68 final-year medical students randomly assigned to a study group (feedback-integrated reflection) and a control group (reflection alone). Both groups completed a pre-test, followed by six daily teaching sessions on gynecology topics. Participants engaged in written reflections after each session, and the study group additionally received individualized feedback. Independent sample t-tests were used to compare pre and post-test scores between the groups, while paired t-tests assessed within-group improvements.

Results:
Pre-test scores were comparable between

the study group (11.68 ± 2.60, 38.93%) and the control group (11.29 ± 2.38, 37.15%; P = 0.52). Post-test scores showed a significant improvement in the study group (20.88 ± 2.98, 69.32%) compared to the control group (15.29 ± 2.66, 51.00%; P = 0.0001). The percentage gain in learning was 35.43% for the control group (reflection alone) and 78.77% for the study group (feedback-integrated reflection). The study group demonstrated a mean normalized learning gain of 69.07%, compared to 29.18% in the control group. The net learning gain, calculated as the difference in normalized learning gains between the study and control groups, was found to be 39.89%.

Conclusion:
The findings highlight the effectiveness of feedback-integrated reflection versus reflection alone in fostering deeper learning by improving higher-order MCQ scores in undergraduate medical students.

Takeaway Message:
Integrating feedback with reflection significantly enhances meaningful learning and improves higher-order MCQ performance in undergraduate medical education, highlighting its value as a powerful strategy in clinical teaching.

ABSTRACT ID:
ORF-TAL04

Effectiveness of Game-Based Learning in Educating Undergraduate Optometry Students on Contact Lens Adverse Events

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Background:
Game-Based Learning (GBL) is increasingly recognized as an innovative educational strategy that fosters active learning, critical thinking, and decision-making. However, despite its advantages, GBL remains underutilized in optometric education. This study aimed to evaluate the effectiveness of GBL in teaching undergraduate optometry students about adverse events associated with soft contact lens wear

Methods:
Forty-four third-year optometry students participated in the study. A customized educational game was designed using Scratch (MIT Media Lab) to simulate patient-optometrist interactions and clinical image analysis to enhance clinical reasoning, diagnosis, and management skills. During the pre-intervention phase, students completed assigned pre-readings and attended an instructional session, followed by a Situational Judgment Test (SJT) to assess baseline cognitive level. Students were then randomly assigned to either a GBL or a Traditional Learning (TL) tutor-led interactive group session. In the post-intervention phase, students completed a second SJT and a self-reflection questionnaire to evaluate cognitive gains and their learning experience through GBL or TL.

Results:
Both groups demonstrated statistically significant improvements in SJT scores from 9.0 to 13.4 in the GBL group (paired t-test, p = 0.000) and from 9.3 to 11.8 in the TL group (paired t-test, p = 0.000). However, there was no significant difference between the post-test scores of the two groups (independent t-test, p > 0.05). All students in the GBL group either strongly agreed or agreed with the positive statements in the self-reflection survey. In contrast, a small proportion of students in the TL group expressed disagreement regarding active engagement, interactive learning, and curiosity. Nevertheless, the self-reflection responses did not show a statistically significant difference between groups (Mann–Whitney U test, p>0.05).

Conclusion:
A simulated clinical scenario integrated into a GBL platform enhanced students' overall learning experience and was as effective as TL in improving cognitive performance.

Takeaway Message:
Clinical simulation-based Game-Based Learning (GBL) can be effectively integrated into optometry curricula to enhance student engagement, strengthen clinical observation, diagnostic, and management skills, and better prepare students for real-world practice.

ABSTRACT ID:
ORF-TAL05

Impact of peer role play as a teaching learning method for imparting medical humanities in phase II medical students at a tertiary care teaching hospital

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Background:
Role play provides an experiential method for teaching medical humanities, allowing students to explore complex ethical, social, and cultural dimensions of healthcare. It enhances communication skills, empathy, and understanding of diverse perspectives through active participation in simulated clinical roles.

Aim:
To assess the impact of role play in teaching medical humanities to MBBS students.

Methods:
An educational interventional prospective study was conducted with 85 Phase II MBBS students participating in the AETCOM (Attitude, Ethics, and Communication) 2.1 module. The module included five sessions: three for sensitization, one cine-education session, and one role play session. Students prepared for a week and performed three role plays under faculty guidance. A student panel judged the performances. Pre- and post-tests assessed communication skills, and feedback was collected through structured questionnaires. Students also submitted reflective writing after the role play.

Results:
The comparison of pre- and post-test scores using a paired t-test showed no statistically significant difference ($p = 0.12$). However, perceptual feedback was positive:

- 45% strongly agreed that communication is best learned via role play.
- 60% felt it was the most effective method for learning clinical features and prescription communication.
- 55% believed it best demonstrated values like empathy and honesty.
- 57% felt it served as a transition from classroom to clinical settings.

Reflections emphasized the importance of doctor-patient communication and professional values such as empathy and autonomy.

Conclusion:
Role play is an effective method for teaching communication and core values in medical humanities, promoting professional growth among medical students.

Takeaway Message:
The humanities are important aspects of everyday medical practice, and they are usually incorporated early into medical education. The National Medical Council of India emphasizes the importance of understanding a patient's psychological, social and cultural needs, alongside their pathology. Extending medical education beyond the biomedical sciences and clinical skills is a core strategy in the development of professional values and behaviours, including professional identity formation. Medical humanities may encourage a deeper understanding of patients' illness journeys. Some values are better taught by

actually depicting thus role play serves the best method to teach medical humanities and soft skills like communication.

ABSTRACT ID:
ORF-TAL06

Validation of Training of Simulated Patients for Teaching and Assessment of History-Taking Skills of Medical Students in Obstetrics and Gynecology

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Introduction:
History-taking is an essential skill in medical education, particularly in Obstetrics and Gynecology (OB-GYN), where it involves sensitive topics such as reproductive health, sexual history and cultural considerations. The use of Simulated Patients (SPs) provides a structured, competency-based approach for training medical students in history-taking. However, implementing SP programs in the Middle East is challenging due to cultural and religious sensitivities. This study aimed to recruit, train and validate SPs for teaching OB-GYN history-taking in a Middle Eastern medical education context.

Materials and Methods:
A cross-sectional and correlational study was conducted among 5th-year medical students in a Middle Eastern medical school during their OB-GYN clinical rotation. Two clinical scenarios, pre-eclampsia and early pregnancy bleeding, were developed, and SPs were recruited and trained to simulate these cases. A structured training program was implemented, and SP performances were evaluated by four expert raters using validated checklists. Cronbach's alpha, intra-class coefficient and Fleiss' kappa test were used to assess inter-rater reliability. A quasi-experimental study compared student performance in an Objective Structured Clinical Examination (OSCE) between an SP-trained intervention group and a non-SP-trained control group.

Results:
Content and face validity were established for all assessment tools. The inter-rater reliability for SP performance across history-taking subscales ranged from moderate to substantial (kappa = 0.55–0.66), with lower agreement for professionalism & communication (kappa = 0.22). SP training effectively enhanced student competency in OB-GYN history-taking. However, OSCE performance did not significantly differ between the intervention and control groups (p = 0.179, Cohen's d = -0.201).

Conclusions:
SP-based training for OB-GYN history-taking in the Middle East is feasible, despite cultural barriers to SP recruitment and training. Future research should explore long-term skill retention and improved assessment methodologies for professionalism and communication skills.

Takeaway Message:
Our study underscores the need for continuous refinement of assessment methodologies and criteria, especially for subjective areas like communication and professionalism. In regions of conservative culture, there are challenges in finding appropriate clinical opportunities, especially for male students in obstetrics. The use of SPs can help bridge this gap, but cultural sensitivities must be carefully managed

ABSTRACT ID:
ORF-TAL07

Integrating Hands-on, Heads-on, and Hearts-on Learning: A Novel Framework to Transform Postgraduate Medical Education

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Background:
Conventional postgraduate medical education in most countries prioritizes greatly on theoretical learning, with very little emphasis on hands-on training. Moreover, there is almost no importance given to teaching empathy to the students, which usually is the most essential component of medical practice for a doctor. To address this gap in training, we developed the 3H Learning Model — a framework that blends cognitive (Heads-on), psychomotor (Hands-on), and affective (Hearts-on) domains — to create a more holistic educational approach to teaching.

Methods:
A weeklong residential training program was designed for ophthalmology residents across multiple medical colleges across India. A 12-hour session was arranged for the students each day, with a structured format of interactive, case-based discussions with active learning strategies, simulation-based wet lab training, and empathy-building reflective sessions towards the end of the day. Post-program feedback was collected based on Kirkpatrick's four levels of training evaluation. The survey included their self-perceived competence in clinical decision-making, surgical confidence, and patient-centric communication. Qualitative feedback was also collected through open-ended questions.

Results:
Out of 47 participants, 34 participated in the post session survey. 97% reported an increased understanding of concepts through active learning strategies and discussions. 88% reported increased confidence in surgical planning and skills, and 99% acknowledged a deeper understanding of patient centric care in the form of empathetic learning. Overall, 70% reported an increased likelihood of applying the 3H skills in their clinical work.

Conclusion:
The 3H model offers a replicable structure for enhancing postgraduate medical education by training learners not only on what they should know and practice, but also on how they should feel and think.

Takeaway Message:
Integrating active learning with emotional intelligence training may lead to more competent, compassionate, and reflective clinicians.

ABSTRACT ID:
ORF-TAL08

Evaluating the Viability of Student Role-Players for Enhancing Communication Skills in Simulated Clinical Scenarios

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Background:
Paid actors (PA) and student role players (SRP) are often considered standard tools for communication skills training in medical education. We aimed to determine the comparative effectiveness of each approach among fourth-year medical students.

Method:
This is a quasi-experimental study involving 176 undergraduate medical students from a private university in Seremban, employed

using convenience sampling. The sample size was calculated using a two-proportion formula. Each student participated in five orthopaedic clinical sessions over six weeks, with alternating exposure to both teaching methods. Topics include lumbar and cervical spines, ankle and foot, shoulder and elbow, and hand and wrist examinations. Analysis was done using IBM SPSS version 28 for the Pearson chi-square test.

Results:
Out of the total respondents, 85 (48.3%) participated in the PA group and 91 (51.7%) in the SRP group. No differences emerged in measured communication aspects except for a statistically significant difference in the simulated patients' (PA and SRP) ability to portray patient roles accurately without using notes ($p = 0.012$), with a higher proportion in the PA group (89.4%) agreeing compared to the SRP group (74.7%). Familiarity with role-players did not significantly affect learning outcomes in either group ($p = 0.593$).

Conclusion:
Both teaching methods demonstrated comparable effectiveness in improving medical students' communication skills across nine out of 10 measured parameters, confirming that student role-play continues to be a viable and effective method in medical education

Takeaway Message:
This study demonstrates that student role-players are comparably effective to paid actors in developing communication skills among medical students in most areas assessed. Given the comparable outcomes across nine of ten communication parameters, the continued use of student role-play presents a cost-effective alternative for teaching clinical communication. For institutions like IMU University, this approach can significantly reduce training costs without compromising educational quality while also providing students with enhanced opportunities for peer learning and engagement.

ABSTRACT ID:
ORF-TAL09

Effectiveness of a Visual Thinking Strategies Facilitator Training Workshop for Enhancing Educator Skills and Acceptance

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Background:
Supporting the university's digital initiative and the library's commitment to develop skilful library users in utilizing library resources were the major factors of this course being introduced. This course is part of the Information Literacy activities offered by the library and with the objective of developing library users' skills in utilizing library resources effectively for their teaching, learning and research activities. This study aimed to explore the effectiveness of the course in using library resources effectively towards participants through the 11 modules offered.

Methodology:
This was a pilot quantity study that was conducted with 11 IMU University librarians regarding the effectiveness of the course. A total of 7 questions were prepared and shared through Microsoft Forms for participants to answer and the data later were analysed.

Results:
About 10 participants (90.9%) were very satisfied with the course content, course presentations, course workflow and assistance from the librarian while only 1 (9.1%) was satisfied. The first open-ended question was related to participants' knowledge gained from the course. Majority of them stated the course has helped them with how to navigate through the library portal effectively. They also stated that this course also managed to support their research activities as it has increased their awareness regarding copyright issues, enabling them to avoid unintentional copyright infringement. The second open-ended question

was related to suggestions. They suggested an additional advance level course is added in the future by using use-case scenarios presenting practical examples or case studies. Lastly, 11 participants (100%) were happy with this course overall.

Conclusions:
The course managed to achieve its objective as the participants stated that they were able to utilize the library resources effectively for their teaching, learning and research activities after completing this course though certain improvements could be included in the future.

Takeaway Message:
Information literacy activities are essential for the development of library skills among library users.

ABSTRACT ID:
ORF-TAL10

Transforming Ophthalmology Fellowship Training: From Passive to Active Learning

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Purpose:
Traditional ophthalmology training has relied on passive learning methods such as didactic lectures, presentations, textbook reading, and faculty-led discussions. These approaches often fail to fully engage trainees or build critical decision-making skills. Three years ago, our fellowship program transitioned to active learning. By incorporating case-based discussions, problem-solving, simulation, flipped classrooms, and peer interaction, we aimed to boost engagement, retention, and clinical readiness. This study evaluates the transition's effectiveness through feedback from both trainees and faculty.

Venue:
A tertiary ophthalmology institute implementing active learning strategies in clinical and academic fellowship training over three years.

Methods:
Active strategies included:
- CBL/PBL for real-time decision-making
- Flipped classrooms for pre-session engagement
- Simulation training (wet labs/surgical models)
- Interactive grand rounds and peer-assisted learning
- Gamification and quiz-based teaching

We conducted six-monthly micro and macro assessments using clinical pearls, U and I videos, and Bloom's taxonomy to evaluate cognitive and procedural progress. A Likert-scale questionnaire was distributed to 109 fellows and 8 faculty to assess changes in engagement, understanding, and teaching satisfaction.

Results (≤200 words):
Among fellows, 86% found active learning more engaging than passive, and 76% reported better knowledge retention. 91% felt peer discussions enhanced understanding, while 67% gained confidence in diagnosis and management. Faculty noted increased participation (100%), improved questioning, and stronger problem-solving (88%). Assessments revealed progress in higher-order skills. Some faculty noted a need for concept reinforcement.

Conclusions:
Active learning improved engagement, preparedness, and collaboration.

Challenges:
1. Faculty workload – mitigated via training and shared resources
2. Resistance to change – addressed by gradual rollout
3. Time constraints – handled via blended/self-directed models
4. Variable participation – improved through gamification and peer support

Active learning proved to be a powerful, sustainable model for ophthalmology education.

Takeaway Message:
Transitioning from passive to active learning in ophthalmology fellowship training significantly enhances trainee engagement, clinical preparedness, and critical thinking. Structured assessments, peer-led discussions, simulation, and Bloom's taxonomy-based strategies foster deeper understanding and skill development. Despite implementation challenges, active learning proves to be a sustainable and effective approach to shaping competent, real-world-ready ophthalmologists.

ABSTRACT ID:
ORF-TAL11

Speak My Gen Z Language: Communication Manual Rewired for Future Global Healthcare Professionals

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Background:
In today's globalized medical education, cultivating culturally responsive communication skills aligned with international standards are essential. This is particularly urgent as Generation Z enters healthcare when communication is increasingly global, digital, and deeply human. Traditional training methods often feel outdated and disconnected from how this generation learns and reflects. The New IMU Communication Skills Manual addresses this gap by offering a concise, learner-centred resource tailored for Generation Z, integrating global health perspectives, core competencies, and modern learning styles. This study aims to evaluate the manual's effectiveness through student feedback.

Method:
We developed a manual covering the preclinical and clinical essential topics including verbal/ non-verbal communication, feedback, professionalism, inclusivity/diversity, and reflection. It incorporates the Calgary-Cambridge framework as a structured guide. The manual demonstrates how students can apply communication skills to key clinical problems (KCPs) each semester. To enhance engagement, we introduced Nikki, a fictional mascot who guides students through the manual, offering relatable tips and encouraging reflection. The manual is accessible on the student e-learn portal. Its impact and student experience were evaluated through a survey using a 5-point Likert scale and open-ended questions.

Results:
Medical students from Semester 1 completed a survey. The majority (86.4%) agreed or strongly agreed that the manual was helpful and relevant to their needs. Regarding user experience, 83.7% found the manual clear, understandable, and easy to navigate. A few (4) students noted that the manual was wordy, suggesting room for further improvement.

Conclusion:
The findings indicate that the communication skills manual is user-friendly and effective in enhancing students' communication competencies. Designed to align with Gen Z learning styles, it offers a sustainable educational strategy that supports communication skills development in future doctors. This highlights the importance of adapting educational materials to meet evolving learners' needs in a globalized healthcare education environment.

Takeaway Message:
In an era of globalized medical education, cultivating culturally responsive and effective communication skills is more critical than ever, especially for Generation Z entering the medical profession. Traditional training often falls short of engaging today's learners.

The New IMU Communication Skills Manual bridges this gap by offering a concise and learner-centred resource tailored to Gen Z. Student feedback confirms its effectiveness and usability. This highlights the need to continuously adapt medical education materials to align with evolving learner needs and international standards in healthcare communication.

ABSTRACT ID:
ORF-TAL12

Enhancing Student Learning in Small Group Anatomy Teaching: Comparison of Pre- and Post-Session Assessment

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Background:
In the recent medical curriculum transformation, anatomy is mainly taught in small group teaching, also known as medical museum sessions (MMS). A review of the learning process in anatomy shows that, compared to passive learning during lectures, interactive practical and tutorial sessions help students visualize 3D forms of the organs, their relationships, and clinical applications. However, close monitoring and evaluation are required to make sure that learning takes place. This study aims to assess the effectiveness of well-monitored small-group Anatomy teaching using pre- and post-tests.

Method:
This quasi-experimental one group pre-test post-test study was conducted in MMS of semester 4 medical students, in the Medical Science Phase of the MBBS program. Prior to the sessions, the structured instructions and pre-learning materials based on learning outcomes were provided to all students. In the session, students were guided to learn using anatomical specimens and models. The sessions were well monitored by two lecturers. The pre-and post-MMS tests were introduced in three different MMS. The questions consist of picture-based identification, one best answer question and short answer questions in Microsoft form. The total grade points were calculated and analysed using a paired t-test. The results were presented with mean±SEM.

Results:
80-100 semester 4 Medical students participated in both pre- and post-tests. The mean score of the pretest was 6.89±0.24, and that of the post-test was 8.38±0.22. The post test result was significantly higher compared to the pre-test ($P<0.001$).

Conclusion:
Well-monitored small group sessions in Anatomy, based on the cognitive level of students, can result in effective learning with improved performance.

Keywords:
Anatomy, small group learning, medical curriculum, pre- and post- assessment

ABSTRACT ID:
ORF-TAL13

Enhancing Reflective Writing in Medical Students: A Comparative Study of Feedback and Guiding Questions

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Background:
Ethical reasoning and critical decision-making skills are the cornerstone for Professionalism. While undergraduate curriculum provides for a sound theoretical framework for medical Ethics, there are limited avenues for practical learning. This study attempts to develop, implement and evaluate a guided Reflection based learning module for undergraduate

medical students to instil critical decision-making skill in ethical dilemmas.

Method:
A quasi-experimental, interventional study using a validated learning module incorporating problem-based discussions and guided reflective writing was conducted among 30 Undergraduate Medical Students after ethical clearance. The Module incorporated a training session on guided reflective writing, validated case vignette-based MCQ pre and post-test and three Problem based decision making exercise on ethical dilemmas and stakeholder feedback. Paired sample t-test was used to compare pre- and post-test scores to evaluate the effectiveness.

Results:
Post-test, 83% (N=24) of participants' scores increased by more than 30% ($p < 0.001$). Student Feedback analysis showed that 50% (n= 15) agreed the module improved their decision-making abilities. 63% identifies small Group discussions had the most educational impact in the module.

Though 80% of the students approved the Guided reflections aided in decision making, 53% suggested it was time consuming and 41% recommended decreasing the number of questions. The participants (75%) felt that the module also helped improve their communication, decision-making skills, and interest in medical ethics.

Faculty Feedback suggested 80% of the students actively engaged in the discussion indicating improved understanding. Only 50% of students reflected effectively with the guided questions.

Conclusion:
Integrating guided reflections and problem-based discussion efficiently developed critical decision-making capabilities in ethical dilemmas. Small Group discussions particularly proved to be impactful in allowing collaborative decision making. The guiding question format facilitated structured thinking for most students, but its practical utility may be enhanced by streamlining the number of questions.

Takeaway Message:
1. Both one-on-one feedback and guiding questions are effective in enhancing the quality of reflective writing among undergraduate medical students.
2. While feedback motivates students and helps personalize their reflections, guiding questions support better organization and clarity in writing.
3. A blended approach using both techniques may provide the most comprehensive support for developing reflective skills in medical education.

ABSTRACT ID:
ORO-TAL14

Students' Empowerment in Developing a Legal and Fiqhi Based Innovative Health Care Ethics & Law Course

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Background:
The field of medical education is evolving to address the ethical and legal challenges faced by healthcare professionals, particularly in Islamic cultures where integrating Islamic ethical principles into curricula is essential. This study investigates the implementation of a flipped classroom model for teaching healthcare ethics and fiqhi law at Saudi University, aiming to enhance student engagement and prepare future practitioners for ethical dilemmas.

Method:
A descriptive cross-sectional study was

conducted with 87 medical students enrolled in the course. The research aimed to assess students' levels of engagement and motivation in the flipped classroom setting, gather perceptions regarding its effectiveness, and identify challenges faced in adapting to this instructional approach. Data were collected using a structured questionnaire with items rated on a Likert scale.

Results:
The analysis of student responses indicated a generally positive sentiment towards the flipped classroom model, with a majority reporting increased engagement and opportunities for collaboration. However, concerns regarding workload and a tendency to prefer traditional teaching methods were also noted. Students expressed mixed feelings about self-paced learning and uncertainty about the flipped model's overall effectiveness in enhancing their understanding of ethics and law.

Conclusion:
The integration of the flipped classroom model in healthcare ethics and fiqhi law education offers valuable opportunities for enhancing student participation. To optimize its implementation, ongoing educator training and a gradual approach to introducing the model are recommended, ensuring an effective and supportive learning environment that addresses student needs.

Key words:
Inverted classroom; healthcare ethics; teaching methodology; flipped classroom.

Takeaway Message:
Integrating the flipped classroom model into the healthcare ethics and Fiqh law education program presents a valuable opportunity to boost undergraduate medical students' engagement. To accomplish effective implementation, continuous educator training and a phased introduction of the model are advised, fostering a supportive learning environment that responds to student needs.

ABSTRACT ID:
ORF-TAL15

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Background:
Simulation-based learning enhances practicum preparedness by enabling trainees to practice clinical skills, develop confidence, and receive formative feedback in a structured and supportive environment. To address the transition from theory to practice, a novel pre-practicum bootcamp was implemented for Master of Clinical Psychology trainees prior to their first clinical placement.

The bootcamp featured simulated intake sessions using trained actors as clients with mental health presentations. Trainees practiced clinical interviewing and history taking, followed by personalised feedback from clinical supervisors. Additionally, they engaged in hands-on practice of scoring and interpreting cognitive and behavioural assessments using anonymised client data as a refresher of core psychometric skills. The program was strategically designed to optimise limited resources while accommodating a large cohort.

Qualitative feedback indicated that trainees found the bootcamp invaluable for improving intake interviewing skills, applying theoretical knowledge, and using assessment tools effectively. They also reported greater confidence and reduced anxiety in preparing for their first clinical placements. Suggestions for enhancement included smaller group sizes, extended and more frequent practice sessions, increased supervision, and inclusion of treatment-focused role plays in Cognitive Behavioural Therapy which is the main therapeutic approach of the programme.

This pre-practicum bootcamp represents a scalable, resource-efficient model for improving clinical readiness. It addresses core competencies early in training and provides a bridge between academic learning and real-world practice.

Takeaway Message:
A well-designed, simulation-based pre-practicum bootcamp can significantly enhance clinical psychology trainees' readiness for real world applications by bridging theory and practice, improving key clinical competencies, and building confidence while also offering a scalable model for early, resource-efficient skills training.

ABSTRACT ID:
ORO-TAL16

Implementation of Team Based Learning (TBL) in Preclinical Phase Medical Students: Lesson Learned and Future Directions

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Background:
Team-Based Learning (TBL) is an active learning method aimed at increasing collaboration, critical thinking, and practical knowledge application. It was implemented with third-year preclinical medical students in an integrative module, shifting from the system-based structure used earlier. TBL was introduced to enhance engagement and address students' boredom from repeated Problem-Based Learning (PBL) sessions. This paper presents a narrative reflection on the implementation process, outcomes, and challenges.

Method:
A total of 114 third-year preclinical medical students participated in a six-week integrative course. Three TBL sessions were conducted, each following the standard three-phase model: pre-class preparation, individual and team readiness assurance tests (iRAT/tRAT), and team-based application exercises. Adaptations included shorter session durations and small group discussions during the preparation phase. iRAT/tRAT scores contributed to students' summative assessment. This narrative is drawn from facilitator experience, informal observations, and internal reflections.

Result:
The implementation took place in a flexible learning space with movable chairs, facilitating group interaction. Some students showed increased engagement, especially those typically less active. However, challenges emerged including passive learning habits, a score-driven mindset from assessment design, and inconsistent faculty involvement. Limited faculty preparation and lack of formal TBL training impacted the consistency and effectiveness of group-based learning.

Conclusion:
The TBL implementation improved student engagement and collaborative learning, especially for less active students. However, challenges like passive learning habits, assessment-driven motivations, and inconsistent faculty participation limited its effectiveness. To enhance outcomes, early socialization and formal TBL training for faculty and students are suggested, along with shifting assessments to a formative approach and arranging student groups to encourage peer-assisted learning.

Takeaway Message:
To enhance outcomes, early socialization and formal TBL training for faculty and students are suggested, along with shifting assessments to a formative approach and arranging student groups to encourage peer-assisted learning.

ABSTRACT ID:
ORF-TAL17

Student-centred clinical case-based concept maps for authentic learning in biochemistry

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Background:
Clinical biochemistry, a branch of medical science, is complex and poses significant challenges for students. To develop work-ready biochemistry graduates, we incorporated real patient cases, which students used to build concept maps to engage learning. This study investigates the implications of student-centred clinical case-based concept maps on authentic learning experience and academic outcomes.

Method:
The Master of Laboratory Medicine students enrolled in clinical biochemistry at Royal Melbourne of Institute or Technology (RMIT) University from February 2029 to June 2023 (n=238) were the subjects of this study. Students worked in groups to analyse real patient case articles sourced from peer-reviewed literature and built concept maps to contextualise the biochemical basis of disease. Anonymous course experience survey with questionnaires pre-validated by the University was employed as a measure to assess students' satisfaction and quality of teaching. Content analysis was performed on free-text comments provided by students regarding their learning experience. Academic grades of all students pre- and post-intervention were statistically analysed.

Results:
A total of 98 out of 238 students completed the survey. Significant positive changes over time were observed in students' satisfaction ($p = .003$) and their perception of the quality of teaching ($p = .008$) upon introduction of the clinical case-based concept map strategy. The intervention also led to improved academic grade distributions. Analysis of the qualitative data demonstrated that students valued concept maps that facilitated basic science knowledge application, while enhancing their critical thinking skills with real patient scenarios and collaborative learning.

Conclusion:
Concept mapping of clinical cases by students engaged learning through curiosity to investigate real-life diseases, leading to better knowledge retention and problem-solving abilities. Our research may offer insights into integrating basic and clinical science education to better equip graduates with the contemporary skillset in response to the changing demands of future workforce.

ABSTRACT ID:
ORF-TAL18

Enhancing Nursing Students' Clinical Reasoning and Self-Directed Learning through Blended Flipped Learning in Physical Assessment Education

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Background:
Clinical reasoning (CR) and self-directed learning (SDL) are essential core competencies for nursing students, particularly in the process of physical assessment, where they play a crucial role in clinical decision-making. However, many nursing students are not adequately prepared in these areas, and traditional teaching methods may not effectively cultivate these skills. Therefore, utilizing blended flipped learning to enhance students' learning autonomy, clinical reasoning, and physical assessment skills has become

a critical issue in contemporary nursing education.

Objective:
This study investigates the impact of blended flipped learning (BFL) on nursing students' CR and SDL in a physical assessment course.

Methods:
This quasi-experimental study used cluster sampling to evaluate the impact of Blended Flipped Learning (BFL) on nursing students' physical assessment course. A total of 100 student nurses were randomly divided into two groups: the experimental group (n=54), which used BFL, and the comparison group (n=46), which received traditional instruction. The intervention spanned 8 weeks, with data collected at three points—baseline (pretest), mid-intervention (Week 4), and post-intervention (Week 8). Outcomes were assessed through measures of clinical reasoning scale and self-directed learning, allowing for a comprehensive comparison of the BFL approach to traditional teaching methods.

Results:
The experimental group showed significantly higher self-directed learning and clinical reasoning than the comparison group at Weeks 5 and 9 ($p < .05$). These findings indicate that the intervention effectively enhanced students' clinical reasoning and self-directed learning. Blended flipped learning had a positive impact on students' learning motivation and contributed to fostering a spirit of autonomous learning while improving clinical reasoning skills in the physical assessment course.

Blended flipped learning effectively enhances clinical reasoning and self-directed learning in nursing students. With instructor feedback, it fosters motivation and lifelong learning.

ABSTRACT ID:
ORO-TAL19

Improving accuracy of ventilator parameter recording among respiratory therapy interns through image card-based teaching

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Background:
During the COVID-19 pandemic, many educational institutions adopted remote teaching, which may have impeded the learning of ventilator operation. This study aims to evaluate the use of an image card-based teaching method to improve the accuracy of ventilator parameter recording among novice respiratory therapy interns entering clinical practice.

Methods:
Twelve respiratory therapy interns completed 6.5-day clinical rotations at our hospital during 2022 and 2023, including five days of image card-based learning. The teaching methodology incorporated: 1. Visual learning: image cards provided clear, intuitive visual guidance, including ventilator mode settings, parameters, and waveform graphics, enabling interns to quickly comprehend ventilator settings and monitoring parameters. 2. Step-by-step learning: The educational program consisted of four phases: basic microteaching (ventilator operation), pre-assessment, clinical simulation practice, and reflective discussion. The approach emphasized instructor-student interaction to reinforce learning through hands-on practice.

Results:
Six respiratory therapy interns participated in the program each year (2022 and 2023). Regardless of initial pre-test scores, all interns demonstrated improved accuracy in parameter recording following the image card-based instruction. The 2022 cohort (traditional in-

person education) improved from an average score of 63.0 to 93.3. The 2023 cohort (remote learning background) showed more dramatic improvement, from 13.2 to 91.3.

Conclusion:
The image card-based teaching method effectively standardized learning outcomes regardless of prior educational modality or initial knowledge gaps. This approach enabled interns to intuitively learn and master ventilator setup, interface operation, and parameter configuration, thereby improving recording accuracy and clinical judgment. Future developments will expand the educational content and integrate interactive learning platforms to enhance new interns' capability to address clinical challenges.

Takeaway Message:
1. The image card-based teaching method effectively standardized learning outcomes regardless of prior educational modality or initial knowledge gaps.
2. This approach enabled interns to intuitively learn and master ventilator setup, interface operation, and parameter configuration, thereby improving recording accuracy and clinical judgment.

ABSTRACT ID:
ORF-TAL20

Perception of a Peer Mentoring Program among Medical Students in a Malaysian Medical School: A Qualitative Study

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Background:
Peer-assisted learning is an educational method in which students learn from their peers. It is implemented in many medical schools, but the program design and reason for implementation often differ. In peer-to-peer tutoring, academically good students are designated tutors, and those in need of support are designated tutees. Our study aimed to explore the perceptions of both peer tutors and tutees on the peer mentoring program.

Methodology:
This was a qualitative study conducted at a Malaysian medical university. One-to-one semi-structured interviews were conducted with peer tutors and peer tutees enrolled in the peer mentoring program via Microsoft Teams, and the data were transcribed thereafter. Thematic analysis was used to explore the data and identify emerging themes.

Results:
Students' experiences, views on the program, and recommendations for improvement were the themes identified for both groups of students. The theme of experience had three subthemes: positive and negative experiences, and motivation to join the program. Under views on the program, we identified three subthemes, which included the challenges of the program, the benefits of the program, and factors for tutor-tutee interaction. The peer tutors mostly expressed positive views on the program, but time constraints were one of their challenges. They felt this experience improved their communication skills and their knowledge. The peer tutees also had a positive experience, but connecting with the tutors and having online sessions were the challenges they faced. They perceived that moral support and help with questions were some of the advantages of these sessions. They felt that having an ice-breaking session would help improve the interaction. Both groups of students expressed that a structured program would be more beneficial for their learning.

Conclusion:
The peer tutors and tutees positively perceived the peer tutoring program. Students suggested that a more structured program could improve it.

Takeaway Message:
Peer tutoring is a valuable academic support mechanism for students.

ABSTRACT ID:
ORF-TAL21

Social Accountability in Action: Service-Learning Initiatives in Pakistan's Healthcare Sector Amidst Globalization

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Background:
Pakistan's health sector faces complex challenges, including health disparities and a double burden of diseases. Iron deficiency anemia is one easily preventable disease which affects 58.8% of children and 50% of women of reproductive age. Globalization has increased the flow of information, resources, and ideas, but its benefits have not been utilized and evenly distributed, exacerbating health inequities. Service learning, a pedagogical approach that integrates community service with academic learning and promotes social responsibility is used successfully in global west and may be the solution to many public health issues of developing countries.

Methods:
A series of health education campaigns were developed using the mixed methods approach. A total of 123 college students developed and delivered five educational campaigns on iron deficiency anemia to 539 community women and 83 children. Collaboration with Flinders university led to addition of point-of-care testing for haemoglobin levels in one of the projects. Questionnaires were used to measure the students' perceived knowledge about civic responsibility, communication skills, and Iron deficiency anemia pre- and post-intervention and compared using the Wilcoxon rank test. McNemar test was used to measure changes in the women's health literacy. Focus group discussions were conducted to collect students' reflections.

Results:
Students showed significant improvement in civic responsibility, communication skills, and knowledge of iron deficiency anemia. Community women demonstrated substantial improvement in health literacy, and POCT screening revealed a high prevalence of anemia, which decreased post-intervention. The average haemoglobin concentration increased by more than 5gm/dl.

Conclusion:
Service-learning initiatives can address health disparities in developing countries like Pakistan by harnessing the energy of college students. This approach promotes social responsibility, improves health outcomes, and has implications for promoting health equity in resource-constrained settings. In the context of globalization, these findings have implications for promoting health equity and social accountability in resource-constrained settings.

Takeaway Message:
Service-learning initiatives can address health disparities in developing countries like Pakistan by harnessing the energy of college students. This approach promotes social responsibility, improves health outcomes, and has implications for promoting health equity in resource-constrained settings. In the context of globalization, these findings have implications for promoting health equity and social accountability in resource-constrained settings.

The community based educational projects using SL projects were able to generate evidence for the institutions, students, faculty, and the community participants about the benefits of experiential learning. In addition, these projects provide evidence that if properly trained and monitored, medical students, as well as high school students, can be used

effectively to help public health personal. The collaboration with Flinders University Australia led to a framework for combining technological advances with teaching and learning strategies and brought the treatment to the doorstep of a marginalized community resulting in improvement in the human indicator.

ABSTRACT ID:
ORO-TAL22

Pitfalls in Medical Education and Evolving Strategies

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Background:
In the current era characterized by rapid advancements in medical knowledge, medical educators continually strive to impart comprehensive knowledge to students. We explore what's working, what's missing, and what could change for the better in medical education so that students can get all the essential equipment before facing the complexities of real- world problems with their patients.

Methods:
A survey on "what we have got wrong in medical education", is sent to medical students at the University of Nottingham. Then, the medical educators in Nottinghamshire discussed their opinions on "What parts of medical education do we feel are outdated, unhelpful, or need to change". The survey results from the students are shared and brainstorm on "How should medical education change to fix these mistakes" as a focus group.

Result:
How and where today's medical education fails to prepare medical students to become effective clinicians are identified. Traditionally, medical students are taught about specific conditions. However, the symptom-to-diagnosis approach eliminates subject barriers and enables rapid disease identification. This approach aligns with patient presentation and encourages a multi- system perspective. Various teaching methods, such as interleaving, spacing, testing, and concept mapping, enhance students' long-term information retention and recall in clinical settings. Newly qualified doctors also face non-technical and non-clinical aspects, such as managing workload, triaging jobs, multidisciplinary teamwork, reflection, and well-being, which are underemphasized in medical education.

Conclusion:
It is imperative to acknowledge that the medical field is experiencing unprecedented growth in knowledge, which can pose a significant challenge for junior doctors attempting to maintain their knowledge base solely through traditional methods. This traditional approach can lead to knowledge gaps and hinder the doctor's ability to effectively deliver care. Therefore, it is crucial to implement the proposed novel strategies to address these challenges, as they have demonstrated efficacy in clinical settings.

Takeaway Message:
To recognize pitfalls in medical education such as non-clinical competencies and the need evolve teaching methods that can help with memory retention and recall. Emphasizing integrative approaches such as symptom-to-diagnosis frameworks and evidence-based pedagogical strategies—interleaving, spacing, testing, and concept mapping—can enhance clinical reasoning and retention. Furthermore, integrating training on non-clinical competencies, including workload management, interdisciplinary collaboration, and reflective practice, is essential to prepare graduates for the multifaceted realities of medical practice.

ABSTRACT ID:
ORO-TAL23

An in-depth exploration of innovative teaching and learning strategies: transforming educational practices for enhanced student success

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Background:
This research aims to explore and evaluate innovative teaching and learning strategies that can transform educational practices. As modern education evolves, educators must adapt to new pedagogical approaches that enhance student engagement and academic outcomes.

Objectives:
- To identify key teaching and learning strategies that foster student success.
- To analyse the effectiveness of various educational approaches in diverse learning environments.
- To provide recommendations for implementing innovative strategies in classrooms.

Methods:
A mixed-method approach was used, including quantitative data from surveys of educators and students across different institutions and qualitative interviews. A comprehensive literature review was conducted to support the findings, and case studies of institutions implementing innovative strategies were analysed.

Results:
The study found that strategies such as flipped classrooms, project-based learning, evidence-based medicine, simulation-based learning, peer-assisted learning, observational learning, and the use of technology in education significantly improve student engagement and retention. Collaborative learning environments also contributed to higher student satisfaction and performance.

Conclusion:
Innovative teaching and learning strategies play a critical role in enhancing educational practices. This research highlights the need for educators to adopt flexible, student-centred approaches to foster better learning outcomes. Recommendations for successful implementation include professional development for teachers and an emphasis on technology integration in the classroom.

Takeaway Message:
Teachers must embrace innovation if they are to genuinely improve student achievement. This involves combining technology, creativity, and student-centered approaches to promote critical thinking, greater engagement, and lifelong learning. The first step toward educational transformation is a readiness to reconsider conventional approaches and give each learner's unique requirements top priority.

ABSTRACT ID:
ORF-TAL24

Globalizing Immersive Learning: Students' Perspectives on Case-Based Integrated Learning (CBIL) in Undergraduate Anaesthesiology Rotation

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Background:
As medical education evolves globally, immersive and integrative approaches are gaining prominence to bridge the gap between theory and clinical practice. At Aga Khan University, Case-Based Integrated Learning (CBIL) was introduced during the undergraduate anaesthesiology rotation to promote clinical reasoning, critical thinking,

and active learning. This study aimed to assess the effectiveness of CBIL in improving students' knowledge and explore their perceptions regarding this approach.

Method:
A descriptive cross-sectional study was conducted with fourth-year medical students during their two-week anaesthesiology rotation. Two CBIL sessions were implemented, preceded by pre-reading materials. Knowledge acquisition was measured using pre- and post-tests (10 MCQs) conducted on the Virtual Learning Environment (VLE). Additionally, students completed a structured feedback form to evaluate the learning experience.

Results:
The mean test scores improved from 6 (pre-test) to 9 (post-test), indicating a positive knowledge gain. Student feedback revealed that 62% agreed the sessions promoted active engagement, while 53% felt CBIL helped apply basic sciences in clinical contexts. Furthermore, 68% agreed the discussions supported conceptual reinforcement, and 54% stated they could apply knowledge from pre-readings. However, only 46% felt the sessions promoted adequate learner–facilitator interaction, and 40% found the post-session assignments useful. Some areas such as the timeliness and clarity of pre-readings and quizzes were identified as needing improvement.

Conclusion:
CBIL sessions effectively enhanced knowledge and engagement, aligning with global educational priorities that emphasize immersive, student-centered learning. By fostering contextual understanding and clinical preparedness, CBIL represents a globally relevant strategy to enrich undergraduate medical education, especially in rotations like anaesthesiology that often lack traditional teaching time.

Takeaway Message:
Case-Based Integrated Learning (CBIL) offers a transformative educational strategy that aligns with global efforts to modernize medical education by promoting active, student-centred, and immersive learning. In our study, CBIL enhanced knowledge acquisition, fostered clinical reasoning, and encouraged the integration of basic sciences with clinical practice, even within a short anaesthesiology rotation. Students reported improved engagement and conceptual understanding, highlighting the model's effectiveness. As health professions education continues to globalize, CBIL presents a scalable and culturally adaptable method for enriching clinical training in diverse learning environments.

ABSTRACT ID:
ORF-TAL25

Deconstructing and teaching skin suturing

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Background:
Skin suturing is a level 3 Malaysian Medical Council requirement in the undergraduate curriculum. Proficiency cannot be attained with a single course, and suture pads do not offer visible or haptic feedback.

Suture needles describe the circumference of a circle. To rotate the needle cleanly through the tissue, ninety-degree principles are applied because ninety degrees the perfect angle. Poorly closed wounds are a result of failing to attend to 90 o alignment of the needle to the tissues, across the wound, and into the tissues.

The banana is a very effective training model. When banana skin is damaged, it releases an enzyme that reacts with oxygen, causing browning. Malignment of the needle or excessive force with the needle will result in damage to the banana skin, offering visible feedback.

Methodology:
Thirty students are assigned in batches of seven to attend the clinical skills unit (CSU0 in the Faculty of Medicine to learn suturing skills. They have been asked to bring Cavendish bananas (Musa acuminata cultivar), with ripening scale of 4 to 5. A seven 7 cm incision is made in the skins, and 5 perpendicular lines are drawn at 1 cm intervals across the incision with a black pen. Care with the forceps: If held incorrectly, forceps can exert a pressure of 6x106 Nm^2, 6000 kPa, 60 BAR, or 870 psi scratching and /or crushing the skin.

Needle alignment:
- Align the needle at 90° in all orthogonal planes.
- Insert needle perpendicularly, rotate, and deliver the needle on the curve.
- Ensure the entry and exit are equidistant from the wound edges.
- Attend to the set up for each stitch.

Conclusion:
The banana is an ideal model for practice because surgical wound is the Indelible Signature of the operator; it behoves us to get it right.

Takeaway Message:
The banana offers a very effective model for practicing skin suturing, and it is sustainable!

ABSTRACT ID:
ORF-TAL26

Beyond Testing: Team-Based Learning for Deeper Assessment as Learning and Alignment with Programmatic Assessment Principles

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Background:
In contemporary higher education, particularly within professional disciplines such as medicine, the significance of robust and effective assessment methodologies has become increasingly pronounced. Educators and institutions are continually seeking approaches that not only evaluate learner competence but also foster meaningful learning and development. Programmatic assessment has emerged as a contemporary paradigm in this context, emphasizing the longitudinal collection of assessment data to facilitate learning and provide a holistic evaluation of learner progress over time. Team-Based Learning (TBL) is not only a learning teaching strategy but also serves as a low-stakes assessment. This study aims to investigate the extent to which TBL aligns with the principles of programmatic assessment, with a particular focus on its role as a low-stakes, formative assessment strategy that supports longitudinal learner development and feedback-driven learning.

Method:
Programmatic assessment model has been defined as a specific approach to the design of assessment and education aimed at optimizing the learning and decision function of assessment. Programmatic assessment is built on twelve key principles agreed in Ottawa 2020 after input from the expert group and Ottawa attendees. We analysed which key principles aligned with TBL and which did not align and discussed them individually.

Results:
The Ottawa Consensus Principles of Programmatic Assessment focus on continuous, feedback-driven, and holistic assessment. While most principles align well with TBL, a few may not directly support or may even conflict with TBL's core design.

Conclusion:
The Ottawa Consensus principles offer a robust framework for reimagining assessment in medical education, shifting the focus from isolated, high-stakes testing to a holistic, learning-centred approach. This alignment not only enhances feedback and learner

engagement but also supports the continuous development of competencies essential for clinical practice.

Takeaway Message:
When thoughtfully implemented, TBL aligns closely with the principles of programmatic assessment and can serve as a powerful strategy to shift assessment from a focus on isolated outcomes to a continuous, feedback-rich, and learner-centered process. By integrating TBL within a programmatic assessment framework, educators can promote deeper learning, meaningful engagement, and the ongoing development of clinical competencies, advancing both assessment for and as learning in medical education.

ABSTRACT ID:
ORO-TAL27

Evaluating the Educational Impact of an AI-Powered Totipotent Interactive Patient Simulator (TIPS)

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AI-powered tools are increasingly used to address the growing demand for clinical teaching capacity in medical education. We present TIPS, a novel AI-simulated patient built on a bespoke large language model (LLM) specifically trained for realistic clinical dialogue. Unlike conventional scripted or chatbot-based systems, TIPS offers fully interactive, multimodal simulations (text, voice, and video), allowing learners to practise consultation skills across diverse formats. Its design supports dynamic, context-sensitive patient behaviour and incorporates a wide range of demographic characteristics, addressing long-standing limitations in diversity and flexibility seen in human simulated patients and pre-scripted platforms. In contrast to commercial solutions, TIPS enables tailored content, alignment with local curricula, and enhanced control over pedagogical parameters. The use of a dedicated LLM and controlled training data also provides a research platform for investigating learning outcomes, bias, and student-AI interaction.

To evaluate educational impact, we conducted a mixed-methods study involving second-year medical students who used TIPS in repeated self-directed consultation exercises over one semester, alongside their existing communication skills curriculum. Outcomes were assessed using pre- and post-intervention questionnaires and structured performance tests.

Preliminary data from 44 participants (mean age 21; 59.1% female) indicate that 61% had prior experience with AI tools such as ChatGPT, using them primarily to summarise content, clarify complex topics, and organise study schedules. Around 68% reported use of AI in academic settings. These findings suggest a student cohort familiar with GenAI but holding varied expectations about its role in healthcare and learning. Post-intervention data, currently in analysis, will assess changes in consultation competence and shifts in learner attitudes following extended engagement with the TIPS platform.

These preliminary findings underscore the feasibility of integrating bespoke GenAI tools like TIPS into undergraduate medical education. As post-intervention data become available, we aim to determine whether such tools can meaningfully enhance consultation skills and learner confidence. If effective, TIPS may offer a scalable and curriculum-aligned complement to faculty-led teaching, particularly in settings where access to human simulated patients or diverse clinical scenarios is limited.

ABSTRACT ID:
ORF-TAL28

Impact of a Faculty-Led Coaching Program on Academic Performance and Experiences of Struggling Medical Students: A Mixed-Methods Study

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Background:
First-year medical students often face challenges in adjusting to the rigor of the medical curriculum, resulting in poor academic performance and diminished confidence. Faculty-led coaching programs have emerged as a promising intervention to enhance academic performance by offering personalized academic guidance to struggling medical students.

Methods:
This mixed-methods study evaluated the impact of a year-long, faculty-led coaching program for first-year medical students identified as struggling learners after failing a high-stakes exam early in the academic year. Quantitative data measured academic performance across three subsequent block exams, while qualitative insights were gathered through one-on-one interviews and analysed thematically to explore student perceptions of the program

Results:
Quantitative analysis revealed that 73.7% of participants (14 out of 19) passed all three block assessments following the coaching intervention, reflecting a statistically significant improvement ($p = 7.13 \times 10^{-11}$). Thematic analysis identified five key themes: (1) Academic struggles and barriers prior to coaching, (2) Improvement in study skills and learning habits, (3) Enhanced emotional and motivational resilience, (4) The student-coach relationship as a driver of change, and (5) Influence of peer and external support systems.

Conclusion:
The faculty-led coaching program had a substantial positive impact on students' academic performance and their confidence in navigating the medical curriculum. Students perceived the program as transformative, enhancing their study strategies while fostering greater confidence and academic resilience. Early integration of structured coaching interventions can be a valuable strategy to support struggling medical students.

Takeaway Message:
Struggling students aren't looking to give up,they're looking for help. Especially during the challenging transition into medical school, they need structured, accessible faculty support to navigate the demanding curriculum. It's our responsibility to create spaces where they can find us before they fall behind.

ABSTRACT ID:
ORF-TAL29

Perceptions of Dental Students on the Use of Mock Debates to Enhance Their Oral Communication Skills: An Exploratory Qualitative Study

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Background:
Oral communication is an essential skill of dental professionals that directly influences the quality and success of patient care. However, digital reliance negatively affects students' interpersonal communication skills. This study explored the perceptions of dental students regarding mock debates as a tool for enhancing their oral communication skills, thus addressing the need for innovative strategies in dental education.

Methods:
This exploratory qualitative study was

conducted at the Dental College of Riphah International University, Islamabad. The study utilized a structured debate activity involving 75 second-year dental students and a focus group discussion (FGD) with six purposively selected participants representing diverse performance levels. Data from the FGD were analysed thematically via NVivo to capture the depth of participants' experiences and insights.

Results:
Four themes emerged from the analysis: interpersonal communication competence, holistic personal growth, comparative effectiveness, and challenges with the proposed solutions. The students reported improved verbal and nonverbal communication, critical thinking, confidence, and teamwork through debates. Debates were highlighted as complementary to other teaching strategies, such as problem-based learning and small-group discussions. Challenges include the complexity of debate rules, loud environments, and limited preparation time. The participants recommended simplified structures, repeated exposure, and constructive feedback to enhance debate effectiveness.

Conclusions:
Mock debates provide a practical and engaging approach for improving oral communication skills in dental education. Debates align well with the pedagogical goals of dental curricula by fostering communication skills augmented by critical thinking, active listening, and teamwork. Future research should explore the longitudinal impacts and refine debate formats to maximize educational outcomes.

ABSTRACT ID:
ORO-TAL30

Self-directed learning (SDL) readiness of medical and dental students, in a private university of Pakistan.

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Background:
According to the adult learning principles suggested by Knowles, all adult learners have the proven capability of being self-directed if provided with the appropriate learning environment. Self-directedness in students encourages them to become lifelong learners, which is essential to provide evidence-based patient care.

Objectives:
The objectives of this study were to assess the self-directed learning readiness of students and highlight the impact of student-centered teaching strategies on their readiness level.

Methods:
This study was conducted at 2 colleges of Ziauddin University- Ziauddin Medical College and Ziauddin College of Dentistry. All students enrolled in 1st & 2nd year MBBS and BDS program were included in the study. This was a cross-sectional study conducted at mid of the Professional Year.

After taking the consent, students were provided with a valid questionnaire, based on a Likert-scale, developed by Williamson, to measure students' readiness of their SDL level.

Results:
The response rate was 35% (n=114/325), with the majority of participants from the MBBS program (88.5%, n=101) and females (67.5%, n=77). The overall mean SDL readiness score was 234.58 (±23.94). Students from Year 1 and Year 2 both predominantly scored high

levels (76.3%) with mean SDL scores of 233.5 (±24.56) and 235.2 (±23.63) respectively. A total of 23.6% of students had moderate-level scores.

Conclusion:
Overall, the study supports the idea that student-centered, active teaching methods significantly enhance self-directed learning readiness of students. This reinforces the importance of integrating such strategies into medical and dental education curricula to foster lifelong learning and independent knowledge acquisition.

Takeaway Message:
SDL and PBL are very significant teaching methodologies that instill the quality of accountability in accordance with clinical competence in medical students. Thus, medical institutes must incorporate these sessions into the curriculum

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ABSTRACT ID:
ORO-TAL33

Educational Videos as an Adjunct Learning Tool in Pre-Clinical Operative Dentistry

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Background:
E-learning is an important adjunct used for teaching clinical skills in medicine and dentistry. Pre-clinical simulation courses provide a safe environment for students to learn clinical skills before moving on to the clinical stage. Operative dentistry skill is one of the basic skill courses in the undergraduate dental curriculum, requiring learning clinical skills. Current literature lacked information about the use of e-learning tools as an additional teaching aid for pre-clinical operative skills in dentistry. This study evaluated and compared the effectiveness of e-learning resources as an additional teaching aid to traditional teaching methods.

Methods:
A randomized control trial was conducted at the College of Dentistry, Jouf University. Fifty students were divided into two groups. One group was taught the traditional way whereas the other group received additional videos to supplement the learning. Both groups were assessed using OSCEs at the end.

Results:
The difference between both groups was statistically significant ($p < 0.05$). Female students performed better in three OSCE stations out of six. Furthermore, the students positively responded to the use of additional resources.

Conclusion:
The use of e-learning resources in pre-clinical operative dentistry courses can be a useful adjunct to traditional teaching methods and can result in better learning of dental pre-clinical operative skills.

Takeaway Message:
The use of e-learning resources in pre-clinical operative dentistry courses can be a useful adjunct to traditional teaching methods and can result in better learning of dental pre-clinical operative skills.

ABSTRACT ID:
ORO-TAL34

Enhancing Resuscitation Training through Competition: Participant Reflections from the Labuan Resuscitation Challenge

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Background:
Conventional Advanced Cardiac Life Support (ACLS) training—typically delivered over two days—often lacks realism, sustained

engagement, and interprofessional team-based learning. To address these gaps, the Labuan Resuscitation Challenge was implemented in a remote island hospital as an innovative, gamified training model integrating simulation and collaborative practice.

Objective:
To explore participants' perceptions of confidence, satisfaction, and educational value following a competition-based ACLS training program.

Methods:
Forty Emergency Department (ED) staff—including medical officers, nurses, and paramedics—were divided into 8 multidisciplinary teams. The program was conducted over two months, featuring structured simulation rounds, progressive scenarios, and inter-team competition. Gamified elements included team names, logos, and war cries to enhance morale. Participants completed post-event feedback surveys assessing confidence (pre/post), overall satisfaction, and open-ended reflections. Quantitative data were analysed descriptively; qualitative responses underwent thematic analysis.

Results:
Confidence in leading resuscitation improved markedly (from 44% to 83%). Overall satisfaction scored 4.8 out of 5.0 (SD 0.3). Thematic analysis revealed four major themes: "Learning under pressure," "Team spirit and belonging," "Safe space to make mistakes," and "Memorable and motivating." Notable quotes included: "This was the first time I felt adrenaline and learning mixed together—just like in real life." "Our war cry wasn't just fun—it made us feel like a real team."

Conclusion:
The Labuan Resuscitation Challenge highlights the potential of competition-based simulation to enhance confidence, interprofessional collaboration, and learner engagement. It offers a replicable model for improving resuscitation training in resource-limited, high-stakes environments

Student Assessment

ABSTRACT ID:
ORF-SAS01

Developing a Structured Framework for Enhancing Remediation in Medical Education: A Mixed-Methods Study

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Background:
Remediation in medical education is essential to support struggling learners and uphold academic and professional standards. However, current remediation practices are often inconsistent, lacking a structured and evidence-based framework. This variability poses risks to both student progression and patient safety. Existing research highlights the fragmented nature of remediation efforts and calls for an integrated model that includes early identification, personalized support, and continuous monitoring. Despite these insights, there remains a significant gap in standardized practices, particularly regarding long-term effectiveness and institutional scalability. The objectives of the study were twofold as follows: To explore the factors contributing to the need for change in the remediation process and the key indicators of struggling learners leading to the remediation process in a pre-clinical medical program.

Methods:
A mixed-methods design was employed, combining quantitative and qualitative data collection. Surveys were used to assess the perceived effectiveness of current remediation processes, while academic performance data

was analysed pre- and post-intervention. Semi-structured interviews with students, faculty, and administrators were conducted to provide qualitative insights.

Results:
A total of 18 students (M=9 & F=9) responded to the Student Remediation Survey.
With regards to the Stress Perception by Remediation Process, majority of respondents reported "No stress at all" across most remediation methods. In terms of overall satisfaction, most students were moderately satisfied, indicating that there's room for improvement. 10 students,6 faculty members and 4 administrative staff participated in the semi-structured interviews. Thematic analysis of the data is ongoing.

Discussion and Conclusion:
This study aims to address critical deficiencies in remediation by proposing a holistic and reproducible model. By integrating educational theory with practical implementation, the framework aspires to improve learner outcomes and institutional practices. It aligns with competency-based medical education principles and has the potential to inform future accreditation standards and faculty development initiatives.

Takeaway Message:
A well-structured, evidence-based remediation framework can enhance learner support, improve academic outcomes, and foster a culture of continuous improvement in medical education.

ABSTRACT ID:
ORF-SAS02

Advancing Proficiency in Laparoscopic Surgery Training: Development and validation of a Comprehensive Laparoscopic Surgery Skill Acquisition Measurement Tool using box trainers

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Background:
Laparoscopic surgery has become a cornerstone of modern surgical practice, offering numerous benefits in patient outcomes. However, the acquisition of proficient laparoscopic surgical skills remains a significant challenge due to the limitations of current training tools. This research aims to address this gap by developing and validating a comprehensive tool for assessing laparoscopic skill acquisition using box trainers.

Methods:
A thorough literature review was conducted to identify key laparoscopic tasks. These tasks, including Peg Transfer, Precision Cutting, Suturing and Knot Tying, Ligating Loop, and Object Manipulation, were subsequently selected by an expert focus group of experienced laparoscopic surgeons. The tool was developed to assess these tasks by measuring key performance metrics such as task completion time, precision, accuracy, and instrument movement smoothness. To ensure the reliability and validity of the tool, psychometric evaluations were conducted using Cronbach's alpha, Content Validity Index (CVI), and Scale-Content Validity Index (SCVI). The tool was further validated through comparison with expert evaluations of participant performances. Data were collected from a diverse group of medical practitioners, including residents and practicing surgeons, who performed the designated tasks on box trainers.

Results:
Reliability analysis revealed strong internal consistency with Cronbach's alpha 0.9. The CVI demonstrated high relevance, with S-CVI/UAI (Relevance) score of 1.00, indicating excellent agreement among experts on the relevance of all tasks. However, the S-CVI/UA (Clarity) score was 0.71. The overall content validity, as measured by the S-CVI/Ave score, was 0.87, indicating acceptable content validity. Expert evaluations showed strong correlation (Spearman's $\rho = 0.78$), with tool-based assessments.

Conclusion:
This study provides a reliable and comprehensive tool for assessing laparoscopic skill acquisition on box trainers. The validation of the tool establishes its potential as an effective mechanism for improving surgical training.

Takeaway Message:
The developed tool offers a reliable, objective, and validated method for assessing laparoscopic skill acquisition on box trainers. With high content validity and strong correlation to expert evaluations, this tool has the potential to enhance surgical training.

ABSTRACT ID:
ORO-SAS03

Do iRAT and tRAT Scores Reflect Learning Outcomes of Preclinical Medical Students? A Correlational Study

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Background:
Active learning approaches, like Team-Based Learning (TBL) and Problem-Based Learning (PBL), help medical students develop skills in teamwork and critical thinking. The nature of TBL incorporates both individual readiness assurance tests (iRAT) and team readiness assurance tests (tRAT) that attempt to assess students' understanding of the subject material and help promote active discussion. While using TBL elements, it is unclear what the predictive validity of each component of TBL is on student performance in both PBL tutorials and in summative assessments. This study is to investigate the relationship, if any, between TBL scores, PBL tutorials, and exam results in preclinical medical students.

Methods:
A cross-sectional correlational study involved 113 third-year medical students enrolled in the Adolescent and Adulthood Module. Students participated in weekly TBL sessions comprising iRAT and tRAT assessments. PBL tutorial performance was evaluated using standardized rubrics encompassing analytical reasoning, communication, teamwork, and information synthesis. Summative scores were obtained from end-of-module written examinations. Pearson correlation analyses explored associations among the TBL components, PBL tutorial performance, and exam outcomes.

Results:
Students scored markedly higher on tRAT (89.55 ± 8.21) compared to iRAT (55.99 ± 14.84; $p < 0.001$), underscoring the benefit of peer collaboration. A modest but significant correlation was observed between iRAT and tRAT ($r = 0.274$, $p = 0.003$). tRAT also showed a weak yet statistically significant association with PBL performance ($r = 0.37$, $p < 0.001$), while iRAT showed no such relationship. Interestingly, iRAT scores correlated moderately with summative exam scores ($r = 0.579$, $p < 0.001$), whereas tRAT did not ($r = 0.170$, $p = 0.072$).

Conclusion:
tRAT is a valuable tool for supporting PBL objectives but may not adequately reflect individual academic achievement. Future research should explore combining TBL with

other assessments to predict clinical reasoning and outcomes.

Takeaway Message:
Team-based learning fosters collaboration and supports PBL objectives, as seen in the high tRAT scores and their positive correlation with PBL tutorial performance. However, tRAT alone is not a reliable indicator of individual academic success. In contrast, iRAT scores moderately correlate with summative exam results, suggesting that individual readiness assessments better reflect students' cognitive preparedness. Thus, to accurately evaluate both collaborative competencies and academic achievement, medical curricula should integrate both iRAT and tRAT while aligning them with formative and summative assessments.

ABSTRACT ID:
ORF-SAS04

Perceptions of Medical Students About the Use of AI in Assessment and Feedback

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Background:
The integration of artificial intelligence (AI) into medical education is expanding, with students increasingly turning to premium AI tools such as ChatGPT Plus, Grammarly Premium, and Amboss AI to enhance academic performance and interpret assessment feedback. However, limited evidence exists regarding medical students' perceptions of the effectiveness, ethical considerations, and limitations of these tools within the context of assessment and feedback. This study aimed to explore medical students' perspectives on using AI tools to support feedback and assessment processes.

Method:
A cross-sectional, descriptive study was conducted among 100 pre-clinical and clinical medical students at a medical university. Participants completed an online questionnaire containing Likert-scale items and open-ended questions assessing frequency of AI tool use, perceived usefulness, concerns, and ethical considerations. Quantitative data were analyzed using descriptive statistics, while qualitative responses underwent thematic analysis.

Results:
Most students reported regular use of AI tools, with 72% using ChatGPT Premium, 60% using Grammarly Premium, and 41% using Amboss AI. Students used AI primarily to clarify instructor feedback, prepare assignments, and enhance clinical reasoning. Specifically, students used AI to simplify complex language in feedback, explain difficult concepts, provide context for clinical guidelines referenced in feedback, generate practice questions to address learning gaps, and interpret the tone of feedback to enhance its constructive use. A majority (81%) agreed that AI tools improved their understanding of feedback, while 67% reported increased confidence in their academic performance. However, 42% expressed concerns about overreliance on AI, 35% indicated limited trust in AI-generated responses, and 29% raised ethical concerns regarding AI use in assessments. Thematic analysis identified three key themes: perceived empowerment, ethical ambiguity, and the need for formal guidance on AI use.

Conclusion:
Medical students find premium AI tools beneficial for interpreting assessment feedback and improving academic outcomes, particularly by simplifying complex instructor comments and providing additional explanations to aid understanding. However, concerns about ethical use and potential overdependence highlight the need for structured guidelines and AI literacy training. Institutions should address these gaps to ensure that AI integration supports learning while maintaining academic integrity and professional standards.

Take-Home Message:
Premium AI tools assist medical students in clarifying instructor feedback and improving academic performance, but to ensure responsible and effective use, medical schools must provide clear guidelines, promote AI literacy, and encourage a balance between technological support and critical thinking.

ABSTRACT ID:
ORO-SAS05

Exploring the potential of ChatGPT as Virtual OSCE Facilitator: A Pilot Study

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Background:
Objective structured Clinical Examinations are an essential component in assessment. These are standardized and timed practical exams that assess the skill-based knowledge of both students and trainees. OSCEs play a crucial role in assessing soft skills such as communication skills in medicine, but standardizing and resourcing these assessments can be challenging. The emergence of generative AI tools like ChatGPT offers opportunities to innovate educational assessment. This study investigates ChatGPT's potential as a virtual assistant to support OSCE communication skills stations, aiming to enhance assessment efficiency and consistency.

Objective:
To explore the feasibility, acceptability, and perceived effectiveness of using ChatGPT as a virtual facilitator in the OSCE station.

Methods:
A mixed-methods pilot study was conducted in the NUST School of Health Sciences, Islamabad. ChatGPT was trained through structured prompt engineering to simulate an OSCE examiner and facilitate communication-focused stations over 50 minutes for 10 students. Participants' experiences were collected via post-OSPE questionnaires (quantitative) and focus group discussions (qualitative). Data were analysed using descriptive statistics and thematic analysis.

Results:
nitial results show promising acceptance among students, with 87% feeling comfortable interacting with the AI tool. Key themes identified through thematic analysis include objectivity, consistency, and rapid response times. The approach also demonstrated feasibility due to its potential to reduce faculty workload and resource requirements. However, some participants emphasized the importance of human supervision to complement the AI tool.

Conclusion:
ChatGPT shows potential as a valuable virtual assistant in OSPEs, offering a user-friendly and effective assessment experience for students. However, further studies with a larger sample size are needed to fully understand its educational impact and potential for widespread implementation.

Takeaway Message:
ChatGPT, when used as a virtual OSCE facilitator, offers a promising, low-resource, and scalable solution for assessing communication skills in undergraduate medical education. While it enhances objectivity and standardization, its integration should be complemented by human oversight to ensure contextual relevance and ethical integrity.

ABSTRACT ID:
ORF-SAS07

Evaluating Team Based Learning as an Effective Low-Stake Assessment Tool in Undergraduate Medical Education

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Background:
Low-stake assessment plays a crucial role in medical education by supporting learning, identifying knowledge gaps, and promoting the development of clinical reasoning. However, traditional assessment methods often fall short in actively engaging students or fostering peer collaboration. Team-Based Learning (TBL), a structured and student-centered instructional strategy, offers a promising alternative by promoting teamwork, delivering immediate feedback, and encouraging application of knowledge to clinical scenarios. Given its potential, it is essential to explore whether TBL can serve not only as an instructional method but also as an effective low-stake assessment tool. The current study was done to evaluate the effectiveness of TBL as low-stake assessment tool in undergraduate medical education.

Methods:
This cross-sectional observational study was conducted among first- and second-year MBBS students in the Department of Physiology at Islamic International Medical College. A total of 181 students completed the feedback form. After obtaining institutional ethical approval, a TBL session was implemented following the standard TBL structure. Data was collected using a feedback form and was analysed using descriptive statistics.

Results:
A total of 181 students filled out the questionnaire about their TBL experiences. Most have prior experience with TBL in teaching (87.3%) and assessment (86.7%). Overall, 73.5% evaluated TBL activities as "Good" or "Excellent," with 26.5% rating them "Fair" or "Poor." Team-Based Learning was seen beneficial in improving understanding by 60.3% of students, whereas 39.7% found it ineffective. Furthermore, 76.2% believed that clinical practice preparation was beneficial, whereas 23.7% disagreed. Most students regarded TBL exams to be non-stressful (77.9%) and beneficial (75.1%), with 72.6% of them supported their ongoing usage.

Conclusion:
Team-Based Learning is well-received by students and shows strong potential as a low-stake assessment tool. It supports active learning, teamwork, and clinical preparedness with minimal stress.

Takeaway Message:
Empowering minds, one idea at a time. Take away the key insights and apply them to make a positive impact.

ABSTRACT ID:
ORF-SAS08

Speaking the Same Language? Exploring Stakeholders' Perspectives on Assessing Medical Students' Communication Skills in OSCEs

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Background:
As medical education globalises, the need for reliable and comparable assessments of core competencies like communication skills is increasingly important. Communication skills are widely evaluated through Objective Structured Clinical Examinations (OSCEs).

We employ the Calgary-Cambridge model to teach and assess these skills, involving both simulated patients (SPs) and faculty examiners in the assessment. Over time, discrepancies between SPs and faculty evaluations have been observed. To address this, our study examined the inter-rater agreement between these groups and explored factors influencing their grading. Understanding these dynamics is essential for developing adaptable, fair assessment strategies suitable for diverse educational and cultural contexts. Ultimately, this would contribute to the training of holistic doctors capable of meeting diverse patient expectations in globalized healthcare environment.

Method:
A mixed-methods study involving 376 medical students from two cohorts undergoing OSCEs was conducted. Quantitative analysis assessed inter-rater agreement. Qualitative data were collected through eight focus group discussions (FGDs) with SPs and faculty to explore factors influencing grading decisions. Thematic analysis of qualitative data identified key themes. The quantitative and qualitative approaches were integrated.

Results:
The percentage agreement between faculty and SP ranged from 0 to 62.5%, while Cohen's Kappa ranged from -0.0053 to 0.198, indicating no significant agreement between assessors. FGDs revealed that SPs focus on patient-centered aspects, such as empathy, rapport, and authenticity, whereas faculty emphasized clinical communication competencies, including structure, clarity, and professionalism. Additionally, some noted that grooming and appearance influenced grading, while ethnicity, age, and race were consistently reported as having no impact.

Conclusion:
Differences between faculty and SPs' assessments highlight diverse communication standards in medical education. Rather than indicating inconsistencies, these variations reflect complex real-world multicultural expectations that future doctors will encounter. Embracing this diversity enhances OSCE authenticity and fosters fair, comprehensive, and stakeholder-informed communication skills assessments in medical education.

Takeaway Message:
This study found no significant agreement between simulated patients (SPs) and faculty in assessing communication skills during OSCEs. Each group evaluates from distinctly different perspectives: SPs prioritize patient-centered qualities such as empathy and rapport, while faculty emphasize clinical communication structure and professionalism. This lack of concordance does not imply flawed assessment but rather reflects the cultural and interpersonal complexities doctors face in real-world clinical practice. Embracing and integrating these diverse viewpoints can enhance the authenticity, fairness, and comprehensiveness of communication skills assessments, ultimately better preparing medical students to meet the evolving demands of global healthcare.

ABSTRACT ID:
ORO-SAS09

Testing the Test: Which Assessment Instruments Differentiate Deep and Surface Learners

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Background:
Descriptive Assessments (DA) and Single Best Answer (SBA) assessments have distinct psychometric properties. Students' learning

approaches—surface or deep determine their preparation for and perception of assessments. This study evaluates whether DA and SBA can effectively differentiate between surface and deep learners in undergraduate physiology.

Methods:
This prospective observational study involved 110 consenting undergraduate medical students. Students' learning approaches (surface and deep) were assessed using the validated Biggs' Revised Two-Factor Study Process Questionnaire (R-SPQ-2F). Participants completed DA and SBA assessments, each mapped to the same curricular construct to ensure equivalent construct validity. Eight paired assessments (reflected the national summative assessments currently in use) were conducted to cover a diverse range of curriculum areas.

Results:
Deep learning showed a strong positive correlation with DA scores ($r=0.4552$, $p<0.001$), compared to a moderate correlation with SBA scores ($r=0.2006$, $p=0.03$). Fisher's Z (5.047, $p<0.01$) confirmed a significant correlation difference. Deep learners scored significantly higher on DA compared to surface learners (7.25 ± 1.25 vs. 6.53 ± 1.52, $p<0.01$), but no significant difference was observed in SBA scores (5.44 ± 1.32 vs. 5.46 ± 1.18, $p=0.98$). Regression analysis revealed that learning approaches significantly predicted DA scores ($p=0.028$ and 0.023) but not SBA scores ($p=0.368$ and 0.262).

Conclusion:
DA demonstrated higher discriminative validity than SBA in distinguishing surface and deep learners, highlighting the limitations of SBA instruments used in high-stakes decisions. This could, however, be attributed to the poor construct validity of the instruments used rather than SBAs as an instrument. However, the assessment items used in this study are currently used for high-stakes assessments on progression and postgraduate selection, which questions their ability to differentiate deep and surface learners.

Takeaway Message:
This study draws on the Students' Approach to Theory Psychological Framework and empirically establishes the superiority of DA in differentiating between deep and surface learners.

SBAs are frequently utilized in high-stakes evaluations. While they guarantee objectivity, it is imperative to ascertain their construct validity in order to evaluate deep learning beyond mere factual recall. If designed to assess more profound cognitive processes, they can serve as effective assessment tools that distinguish between deep and surface learners while maintaining objectivity.

Furthermore, it is necessary to develop rubrics for DAs to be scored objectively, especially given their efficacy in differentiating students who engage comprehensively with their learning materials from those who rely solely on rote memorization to pass their examinations.

ABSTRACT ID:
ORF-SAS10

Widening access to medical education: A realist evaluation of selection pathways

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Background:
Research on selection into medicine has mainly focused on robustness of selection criteria, processes, and tools, less on the effectiveness of selection pathways. Published research is often limited to single institutions or single interventions. Following on from

our realist review of widening access (WA) to medical education, this realist evaluation explored admissions and selections pathways using Australian case studies to inform WA pathways, practices and policies.

Methods:
We completed a realist evaluation (using RAMSESII protocol) to develop an explanatory theory on how contexts and mechanisms interact to contribute to WA in selection. Case studies of four Australian medical schools, included evaluation of websites, documents, and student data from 2010 to 2022. Interviews with 41 staff and 17 first year students explored Contexts (sociocultural, political, and structural conditions), Interventions (pathways, adjusted selection scores), Mechanisms (dispositional, institutional, situational processes) and Outcomes (increased applicants, successful selection). Through iterative analysis we developed explanations and interpretations of WA and generated a common program theory.

Results:
Across the case study sites, inter-related Contextual factors influenced how Interventions were implemented for specific diversity groups . Interventions focused on modifying selection criteria and collaborating with relevant community. The program theory shows that the Mechanism's underpinning Intervention success were an established vision and philosophy of the institution and medical school, inter-personal communication and relationships with community, and wrap around support for applicants that raised individuals' aspirations and ability to apply.

Conclusion:
Political mandates are important driving forces for WA, which may explain the narrow range of pathway options. Institutional structures are the biggest threats to successful mechanisms. Change in cohort diversity is visible, but longitudinal evaluation of selection outcomes is needed. We present the program theory and interactions between context and mechanisms along with recommendations for a national discussion on effective implementation and evaluation of WA interventions.

Takeaway Message:
This study provides insights for medical school policy makers seeking to design and implement more effective widening access strategies.

ABSTRACT ID:
ORF-SAS11

Creating Globally Accepted Benchmarks for Assessment of Ophthalmology Trainees

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Background:
Ophthalmology training lacks standardized, globally accepted benchmarks for formative assessments. This study aimed to design a structured framework integrating cognitive, psychomotor, and professional competencies using Bloom's Taxonomy and clinical microlearning. The objective was to create an adaptable, transparent model for evaluating ophthalmology fellows internationally.

Method:
A prospective observational study was conducted involving 161 ophthalmology trainees across three assessment cycles (October–December 2024). Assessment tools included (1) clinical pearls for knowledge articulation, (2) Bloom's Taxonomy-aligned medical and surgical viva presentations, and (3) reflective video submissions focusing on surgical and outpatient skills. The design was guided by educational taxonomies, surgical milestones, and international curriculum comparisons. All submissions were reviewed by a multidisciplinary education team using predefined rubrics.

Results:
90.6% of trainees completed all three steps. 72% demonstrated progressive cognitive

skill levels across Bloom's domains. Rubric-based evaluations revealed strong inter-rater agreement (κ=0.81), ensuring reliability. Fellows who received structured feedback showed significantly improved performance in subsequent cycles ($p<0.05$). Video reflections provided qualitative insights into surgical decision-making and professionalism, enhancing triangulation of assessments.

Conclusion:
This structured assessment framework provides a scalable, competency-aligned model for ophthalmology fellow evaluation. Integration of clinical reasoning, surgical preparedness, and reflective learning offers a comprehensive blueprint that can inform global fellowship programs.

Takeaway Message:
A structured, competency-based assessment framework—grounded in Bloom's taxonomy and real-world clinical skills—can standardize ophthalmology training across global fellowship programs, ensuring fairness, clarity, and progression in trainee development.

ABSTRACT ID:
ORF-SAS12

Exploring the experiences of content experts with item vetting during item bank development

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Background:
The objective was to explore content experts' experiences with item vetting during item bank development at a public sector medical university of Rawalpindi, Pakistan. Research Questions: What are the experiences of content experts with item vetting during item bank development at a public sector medical university of Pakistan.

Methods:
An exploratory study was carried out from December 2022 to February 2023 at a public sector medical college of Rawalpindi. A purposive sampling technique was employed to collect data from all content experts of the study institute who participated in item vetting activity during pre-exam moderation in the university. A pilot-tested semi-structured interview guide was utilized, interviews were audio recorded and later transcribed. Participants' anonymity was ensured. Various quality assurance strategies were employed to ensure the trustworthiness of the findings. Thematic analysis was performed on the transcribed data and themes were finalized by achieving consensus among all authors.

Results:
Six themes overarching the fourteen subthemes emerged from the data. Participants expressed a profound sense of satisfaction and valued their experience in refining expertise in constructing multiple-choice questions (MCQs). It was widely acknowledged that such activities not only contribute to the enhancement of item development skills but also improve quality of items.

Conclusions:
The consistent implementation of item vetting routines, in conjunction with diligent adherence to item writing protocols, contributes to quality assurance measures in assessment. Item bank development for fair and transparent assessment ensures production of competent healthcare professionals filtering incompetent ones hence improving health care services in the community.

Takeaway Message:
Consistent item vetting is crucial for developing high-quality assessment items and ensuring fair evaluations, ultimately contributing to competent healthcare

professionals and improved community health services.

ABSTRACT ID:
ORO-SAS15

An approach to develop cognizance among clinical faculty regarding integrated OSCE

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Background:
Changes in assessment strategies are required to confidently 'certify' 'ready to practice' graduates appearing in the MBBS exit exam. Researchers suggest that integrated OSCE (i-OSCE, a modified form of OSCE) is an effective tool to better assess the advanced critical thinking skills of graduating doctors, necessary for basic clinical practice. However, very limited literature is available on the utilization of this tool.

Objective:
The study aims to develop cognizance among clinical faculty regarding the use of i-OSCE in the exit exam of MBBS.

Methodology:
Design: Multi-phase, mixed-method, exploratory-sequential study: Qualitative phase was followed by Quantitative phase having a Quasi-experimental design. Settings: Study was conducted at a private Medical University, Islamabad, Pakistan. Participants: 7 participants for the Qualitative phase and 49 for the Quantitative phase participated in the study. Purposive sampling was done for both phases. Tool: First phase: Qualitative; face-to-face semi-structured interviews from senior assessment experts/HODs. It also includes the development of a survey questionnaire based on the themes generated during qualitative data analysis. Second phase: Quantitative; pre and post-test, Quasi-experimental design. Analysis: Thematic analysis for Qualitative data: descriptive and inferential analysis for Quantitative data was performed.

Results:
Qualitative: Limitations of conventional OSCE include: being discipline-based, repetition of content and restricted critical-thinking skills. Factors contributing to i-OSCE implementation include: many potential areas of integration, avoidance of repetition, and patient-centered assessment approach. Challenges and concerns related to i-OSCE comprise: Faculty resistance, lack of trained faculty, infrastructure, fear of compromised assessments, weightage of internal assessments, and policies of accrediting bodies. Quantitative: After intervention, non-significant 'p' value of total scores was obtained but item-by-item analysis showed significant 'p' values in certain areas.

Conclusion:
Results showed increased faculty motivation towards learning i-OSCE. More training workshops are required to address the challenges of station design and conduct.

Key words:
OSCE limitations, critical thinking, i-OSCE

ABSTRACT ID:
ORF-SAS16

The Shaping of Medical Professional Identity in Community-Based Medical Education: A Mixed-Methods Study in China

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Background:
Community-Based Medical Education (CBME) has been advocated for the learning of clinical reasoning and integration of theory into clinical practice. It is also considered to be an important approach to enhance medical students' professional identity. CBME is not

yet widely implemented in China and its effects in nurturing medical graduates is scarcely investigated.

Methods:
This study compared the professional identity development of medical students under CBME (N=69) and conventional training programs (N=313) in a Chinese medical college and investigated how CBME influenced this process. Data collected through medical student's professional identity scale were subject to t-test and ANOVA. Data from the semi-structured interviews with 10 CBME students were analysed thematically.

Results:
ANOVA on professional identity scale data revealed that CBME students scored significantly higher in total professional identity and its subdimensions (professional affect, professional behaviour, and professional commitment) compared to conventional program peers. Semi-structured interviews elucidated CBME's formative mechanisms: early clinical exposure enhanced students' understanding of the roles of community healthcare, expanding their perception of physicians from mere "treaters" to "health managers" and "social responsibility bearers." Competency development through practice integration fostered differentiated communication strategies and internalization of professional norms, thereby strengthening self-efficacy and identity. Additionally, clinical mentors' guidance, patient interactions, and research engagement further reinforced professional identity.

Conclusion:
The study confirms the promotive impacts of CBME on shaping medical students' professional identity. It recommends optimizing medical education through three strategies: 1) enhancing practice-oriented teaching with expanded clinical opportunities, 2) refining community-based learning systems, and 3) constructing supportive ecosystems to cultivate professionals with robust professional identity.

Takeaway Message:
Semi-structured interviews elucidated CBME's formative mechanisms: early clinical exposure enhanced students' understanding of the roles of community healthcare, expanding their perception of physicians from mere "treaters" to "health managers" and "social responsibility bearers." Competency development through practice integration fostered differentiated communication strategies and internalization of professional norms, thereby strengthening self-efficacy and identity. Additionally, clinical mentors' guidance, patient interactions, and research engagement further reinforced professional identity.

Stakeholder Engagement

ABSTRACT ID:
ORF-STE03

Global Research Agenda in Health Professions Education: A Scoping Review

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Background:
Research agenda exercises in Health Professions Education (HPE) have been conducted across institutions, but no consolidated global agenda exists for international adaptation. This scoping review aims to synthesize a global HPE research agenda based on priorities identified across countries and regions.

Method:
A systematic search was conducted in databases (PubMed, Web of Science, Scopus,

Embase, CINAHL, ERIC) using keywords and MESH terms related to "health professions education" and "research agenda." Original articles published in English between 2000 and 2025 were screened and analyzed based on the PRISMA-ScR guidelines. Two independent reviewers conducted the selection and resolved conflicts through discussion. A total of 1292 records were identified, with 322 titles screened and 148 abstracts reviewed. After a full-length review of 40 publications, 23 studies were included.

Results:
These studies were conducted across various regions, including multinational (n=5), USA (n=5), Iran (n=4), UK (n=2), Ireland (n=1), Australia (n=1), New Zealand (n=1), Taiwan (n=1), Hong Kong (n=1), Pakistan (n=1), and Sudan (n=1). Common top research agenda includes curriculum development, professional competence, workplace and clinical education, teaching and learning methods, and educational evaluation and assessment. The studies covered a wide range of health professions specialties, such as general healthcare, emergency medicine, nursing, dental, surgical, physical and nutrition education.

Conclusion:
This study synthesizes shared research agendas in HPE from diverse medical specialties, institutions, countries, and regions. The agenda includes curriculum development and design, professional competence and development, workplace and clinical education, teaching and learning methods, and educational evaluation and assessment. The identified priorities can serve as a global benchmark to guide future HPE research and optimize resource allocation.

Takeaway Message:
The identified priorities can serve as a global benchmark to guide future HPE research and optimize resource allocation

ABSTRACT ID:
ORF-STE04

Malaysian SeDIA Cohort: An Analysis of students' reflections on learning through a student led community engagement activity on research subjects with diabetes.

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Background:
The Malaysian SeDIA cohort recruitment activity, through its community engagement cluster, collaborated with a group of IMU University Year 1 medical undergraduate students who conducted their community engagement and health promotion initiatives in their Year 1 MPU 3412 Social Responsibility module. A primary goal of the MPU module is to encourage students to serve the community meaningfully, through a community engagement initiative. This paper describes the reflections of the student participants as stakeholders in the community engagement initiative.

Method:
The students designed, developed and implemented a patient engagement project where they developed content for an educational talk, conducted post talk quizzes and exercise demonstrations with participation of the research subjects. The primary aim of the patient engagement activity was to educate the research subjects about practical steps to prevent and manage diabetes and keep active. The students then wrote a reflective report on their experience of participation in the MPU 4 project. This analysis was done to gain an understanding of the expectations, requirements and learning achievements of students as stakeholders in their project and learning journey.

Results:
The students' reflections provide an insight into the soft and hard skills they acquired through the project, beyond the defined curriculum. Students realised it was "important to see health issues from the patients' perspectives" and skills acquired included persuasive and empathetic communication, public education, and teamwork, which were all considered as foundational to becoming compassionate and effective healthcare professionals". They reflected that "medicine is not just about diagnosing and treating, but also about empowering individuals to take charge of their health with knowledge, support, and empathy".

Conclusion:
Student led experiential learning through community engagement projects allows students to apply classroom knowledge to real-world situations, fostering a deeper understanding and skills development, as well as early exposure to real patient interactions.

Takeaway Message:
Fostering an early transformative student learning and professional development experience through student led community engagement projects with real world patients.

ABSTRACT ID:
ORF-STE07

Active and direct patient participation in health professions education: A narrative overview of literature from the global south

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Background:
Patients traditionally played a passive role in health professions education (HPE). However, their active involvement is increasingly valued, particularly in higher-resourced regions of the world known as the Global North. This study explores active and direct patient involvement in HPE contexts in the Global South (GS) regions of the world.

Methods:
A narrative review of literature was conducted, utilizing a systematic search of multiple electronic databases. 3966 abstracts were identified, and 80 full texts were reviewed. Ultimately, five papers were included in the final corpus.

Results:
The selected studies were set in five GS countries, involving undergraduate, postgraduate medical and pharmacy training. Real patients, their caregivers and standardized patients acted as teachers or assessors focusing on learners' history-taking, communication skills, and professionalism. Challenges included cultural sensitivity and safety concerns, e.g. during home visits. Educators faced difficulties in patient recruitment, training and compensation.

Conclusion:
Active and direct patient involvement in HPE within GS contexts remains limited. Current efforts focus on patients as teachers or assessors, with little contribution to educational design, instruction and mentoring. Educators may be overlooking the potential of diverse cultural perspectives to enhance patient engagement in HPE, making this a valuable area for future research.

Takeaway Message:
Patient involvement in HPE in the Global South is limited, focusing on teaching and assessment missing opportunities for broader contributions.in shaping healthcare education.

- A one-size-fits-all approach to patient involvement is ineffective; cultural and contextual factors must be considered in

these initiatives.

- Patients in the Global South may hesitate to participate due to collectivist cultures and high-power distances, unlike in the Global North.
- Educators should seek to understand patient perspectives in their cultural contexts and create flexible frameworks that respect local values and healthcare systems.
- Pilot programs or advisory boards can help integrate patients as educators, assessors, or curriculum designers, while promoting culturally sensitive, patient-centered learning.

ABSTRACT ID:
ORF-STE08

Strengthening Stakeholder Support: Exploring Parental Stress and Coping in Hearing Impaired and Autistic Populations

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Background:
Developing effective interventions for children with Special needs requires active stakeholder engagement, especially from parents. Understanding parental stress and coping strategies enables healthcare professionals to design individualized, family-centered interventions and promote positive behavioural and emotional outcomes. Integrating this knowledge into health professions education equips future practitioners with essential skills, supports interdisciplinary collaboration, and strengthens evidence-based, psychosocially informed care for complex developmental conditions.

Objective:
The purpose of this study was to determine the stress levels and coping techniques used by parents of children with autism and hearing impairment in order to inform stakeholder-driven support systems.

Methods:
Non-probability convenience sampling was used to perform a cross-sectional study. Between October 2018 and March 2019, 300 parents, aged 20 to 60, were gathered from Special Education Institutes in Islamabad and Rawalpindi (200 of whom had hearing-impaired children and 100 of whom had autistic children). The Parental Stress Scale, the Coping Strategies Inventory, and a demographic questionnaire were used to gather data at the Isra Institute of Rehabilitation Sciences. SPSS 21 was used to conduct the statistical analysis.

Results:
The mean stress score for parents of children with hearing impairments was 47.44 ± 12.85, and the most common coping mechanisms were problem-focused engagement (mean = 26.03) and problem-focused disengagement (mean = 24.25). Conversely, parents of autistic children employed emotion-focused and problem-focused engagement tactics the most, with a mean stress score of 48.92 ± 11.22.

Conclusion:
Parents of children with autism and hearing impairments exhibit different stress profiles and coping strategies. These revelations highlight how crucial it is to include parents as important partners in the development of tailored support networks, interventions, and policy initiatives that promote the welfare of families.

Take-Away Message:
Understanding the emotional and psychological experiences of parents of children with autism and hearing impairment is essential for healthcare professionals. This study emphasizes the need to equip future practitioners with the skills to recognize family dynamics, respond empathetically, and deliver care that reflects real-world challenges. Integrating such insights into training promotes more holistic, collaborative, and effective healthcare practices across disciplines. By comprehending the stress and coping

mechanisms of parents of children with autism and hearing impairment, professionals may create support systems that are more inclusive, responsive, and successful. As stakeholders, we create stronger paths to better outcomes for families and children when we actively listen to and work with parents.

ABSTRACT ID:
ORF-STE09

Development, Validation and Evaluation of an Instrument That Measures Institutional Contributors of Medical Students' Resilience

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Given the growing concerns around medical students' psychological health, resilience has emerged as a critical attribute to alleviate emotional distress and support academic and clinical success. While resilience is influenced by both individual attributes and contextual factors, existing measurement tools largely neglect the institutional role in fostering resilience. In response to this gap, this study aimed to develop, validate, and evaluate a comprehensive instrument that measures institutional contributors to resilience among undergraduate medical students.

The research was conducted in three phases using an exploratory sequential mixed-methods design. In Phase 1, institutional contributors were identified through a scoping review of literature, followed by qualitative data collection via focus groups with students and in-depth interviews with faculty and administrative staff. These insights informed the development of the initial version of the Institutional Contributors to Resilience (I-CoRe) questionnaire, comprising 85 items across nine conceptual domains.

Phase 2 focused on instrument validation. Content validity was established with a panel of nine experts, yielding a high Scale-Content Validity Index (S-CVI/Ave = 0.98). Response process validation was conducted with twenty-one medical students to ensure item clarity and interpretability. Exploratory Factor Analysis (EFA) using data from 201 students revealed a refined structure with eight domains and 54 items. Subsequent Confirmatory Factor Analysis (CFA) with 502 participants further refined the tool to 18 items grouped into four latent domains. The final model demonstrated good fit indices and high internal consistency (Cronbach's alpha = 0.95).

In Phase 3, the tool's external validity was evaluated through correlational analysis with established measures: the Medical Education Resilience Scale (MeRS-14) and Depression Anxiety Stress Scale (DASS-21). As hypothesized, the I-CoRe instrument showed a strong positive correlation with MeRS and negative correlations with DASS, supporting its construct validity.

Takeaway Message:
The findings highlight the crucial role of institutions in fostering student resilience through supportive policies, faculty engagement, collaborative learning environments, and mental health responsiveness. The validated I-CoRe instrument offers a novel, psychometrically sound tool to assess and enhance institutional practices that promote resilience. This instrument holds significant implications for medical educators and policymakers aiming to improve student well-being, academic performance, and ultimately, the quality of patient care.

Keywords:
Resilience, medical students, institutional support, validation, mental well-being, medical education

ABSTRACT ID:
ORF-STE10

The Impact of Global Health Partnerships on Cambodia's Health Science Education: Current Status and Future Prospects

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Background and significance:
Health science education (HSE) in Cambodia has seen notable transformations due to the increasing of global health partnerships (GHPs). These partnerships—ranging from bilateral collaborations with foreign universities to support from NGOs and international agencies—have significantly contributed to faculty training, curriculum development, infrastructure enhancement, and research capacity building. In a country where health education has long faced challenges such as resource scarcity and staff shortages, GHPs have played a crucial role in aligning educational programs with international standards.

Objective:
This assessment examines the impact of international partnerships on Cambodia's HSE, recognizing key achievements while identifying areas requiring improvement to ensure sustainability and local ownership.

Methods:
The study reviewed academic literature, institutional reports, and policy documents from 2010 to 2024, focusing on aspects such as student outcomes, infrastructure, curriculum reform, and faculty development.

Findings:
Findings reveal that collaborations with partners from France, Japan, Korea, Germany, Thailand, Australia, and the US have improved educational quality and expanded postgraduate and continuing professional development programs. Initiatives by organizations like GIZ and JICA have enhanced teaching and research capacities, while support from WHO, USAID, and the World Bank has integrated essential public health competencies into curricula. However, persistent challenges include overreliance on donor funding, fragmented aid efforts, limited program sustainability, and inconsistent evaluation methods.

Conclusion:
GHPs have been instrumental in elevating the standards of Cambodia's HSE by fostering innovation, improving quality, and strengthening international collaboration. Yet, for these improvements to endure, there is a pressing need to reinforce national leadership, develop robust monitoring and evaluation systems, and align partnership efforts with Cambodia's long-term health education goals. Future efforts should focus on building local capacity, encouraging mutual learning, and implementing sustainable, country-driven strategies to cultivate a health workforce that is both globally competent and responsive to national needs.

Takeaway Message
Global health partnerships have significantly advanced health science education in Cambodia by enhancing faculty development, curriculum quality, and research capacity. These collaborations have modernized training and aligned it with international standards. However, long-term impact depends on reducing dependency on external support, ensuring sustainability, and aligning efforts with national priorities.

Strengthening local ownership, building institutional capacity, and establishing effective evaluation frameworks are essential. Future partnerships should emphasize mutual learning and sustainable development to support a health workforce that meets both local needs and global standards. Strategic, country-led approaches are key to achieving lasting improvements in Cambodia's health education system.

ABSTRACT ID:
ORF-STE11

Interprofessional Education Between Nursing and Traditional Chinese Medicine Students in Eczema Management Through an Immersive Ward Simulation

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Background:
Interprofessional education fosters collaboration among healthcare professionals. Traditional Chinese Medicine (TCM) students often train in outpatient settings, managing patients independently with limited exposure to multidisciplinary teamwork. Nursing students, though mostly hospital-trained, rarely encounter structured Complementary Medicine experiences. High-fidelity immersive simulations, conducted in a technologically advanced room capable of projecting realistic, 360-degree clinical scenarios, were introduced to address these gaps. These simulations offer realistic contexts that enhance teamwork and role clarity. Eczema, a common clinical condition, was chosen to provide a shared platform for TCM and nursing students to explore integrative care and bridge understanding with conventional medicine.

Methods:
A quasi-experimental mixed-methods study involved 12 TCM and 17 nursing students. Participants were randomly mixed and divided into three groups rotating through clinical stations. One station led by a Western medical doctor in a simulation ward. Another by a TCM practitioner in the immersive room, offering hands-on exposure to traditional approaches. The third, by a nursing lecturer in a simulation ward, focused on dressing techniques and skin care. All students interacted with a patient with eczema whose skin showed real signs of the condition. Pre- and post-tests assessed knowledge of eczema pathophysiology and management. Reflective reports were thematically analysed.

Results:
Average test scores improved post-simulation. Students reported greater confidence, improved communication, and deeper appreciation for interprofessional collaboration. Reflections showed the experience encouraged re-evaluation of clinical approaches and broadened understanding of integrative care.

Conclusion:
Immersive interprofessional education addresses TCM and nursing training limitations by improving collaborative skills and clinical knowledge. This approach is promising for wider healthcare education applications, promoting stronger interdisciplinary teamwork and patient-centred care.

Takeaway Message:
By merging immersive simulation technology with interdisciplinary clinical teaching, this innovation redefines how TCM and nursing students co-learn, transforming a common patient scenario into a high-impact, experiential bridge for integrative, practice-ready education.

ABSTRACT ID:
ORF-STE12

Bridging Knowledge and Practice: A CPD Model for Pharmaceutical Scientists through Academia-Industry Collaboration

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Background:
The pharmaceutical industry's rapid evolution demands a workforce with robust scientific understanding to drive innovation and troubleshoot challenges in an ever-changing and increasingly demanding environment. A Continuing Professional Development (CPD) programme was collaboratively developed by pharmaceutical scientists from IMU University and a leading Malaysian pharmaceutical manufacturer. The primary educational goal was to bridge the gap between university-acquired knowledge and workplace practices by enhancing participants' understanding of pharmaceutical chemistry, analytical thinking, and scientific reasoning. The programme targeted a diverse group of employees, from entry-level to mid-career, enabling them to contribute more effectively to product development and innovation.

Method:
To ensure educational relevance and contextual fit, an in-depth training needs analysis was conducted through extensive consultation with industry senior management. Insights gathered informed the development of an 8-week, chemistry-focused refresher course structured to reinforce essential concepts underpinning pharmaceutical product development. The educational design incorporated active learning principles through a blend of workshops, real-world case studies, and guided problem-solving.

Results:
The training revealed gaps between theoretical understanding and practical application among participants, validating the need for such targeted educational interventions. The inclusion of formative and summative assessments focused on case-based analysis proved effective in consolidating learning. Participants demonstrated improved conceptual clarity and the ability to contextualise and apply scientific principles within their specific work roles. These outcomes highlight the programme's success in fostering critical thinking and problem-solving skills, essential for high-performance in pharmaceutical settings.

Conclusion:
This initiative demonstrates the educational value of the collaborative CPD programme that aligns closely with industry needs and operational realities. The success of this programme suggests that future CPD designs should prioritise needs-based co-creation, contextual learning through authentic industry scenarios, and scaffolded skill development. Such approaches can significantly enhance workforce competence, adaptability, and innovation capacity in science-driven industries.

Takeaway Message:
A collaborative Continuing Professional Development (CPD) programme, developed through a needs analysis, effectively utilised active learning and real-world case studies. This initiative significantly improved participants' conceptual clarity and their application of scientific principles, thereby boosting critical thinking and problem-solving skills. The programme's success highlights the immense value of academia-industry collaboration and needs-based, contextual learning in enhancing workforce competence and driving innovation within the pharmaceutical industry.

E-POSTER PRESENTATION ABSTRACTS

Curriculum Design

ABSTRACT ID:
EPF-CUD01

Co-Designing a Work-Based Learning Curriculum for a Food Science Innovation Degree: A 2u1i Industry-Academia Collaboration Mode

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Background:
The food industry often highlights a gap in practical skills, soft skill competencies, and industry readiness among fresh graduates. In response, the Bachelor of Science (Hons) in Food Science Innovation (FSI) was developed using a "with the Industry, for the Industry" approach under the 2u1i mode—comprising two years of academic study followed by one year of industry placement. We aimed to describe the design of a work-based learning (WBL) curriculum that aligns with industry demands and fosters sustainable industry collaboration.

Method:
The curriculum development process spanned 18 months and followed a multi-phase approach: (1) focus group discussions with food industry stakeholders to assess programme feasibility and identify core competencies, (2) co-design meetings involving industry representatives, professional body, and academic experts, and (3) iterative reviews by internal and external panels, including the Board of Studies and programme reviewers. Industry partners were engaged through formal invitations, collaborative meetings, and joint decision-making process related to curriculum content and industry placement.

Results:
A total of 6 industry partners from diverse sectors: food ingredient supplier, food manufacturing, research and development, and quality assurance who actively contributed to the curriculum design and committed to providing industry placements. Key outcomes included the integration of industry-led modules, real-world case studies, research project, and a 1-year industry placement framework co-supervised by industry coaches. Industry partners cited early involvement, shared curriculum development, and alignment with their talent pipeline as key drivers of their commitment. Feedback indicated strong support for the programme's relevance and its potential to produce industry-ready graduates

Conclusion:
The collaborative development of the FSI curriculum under the 2u1i mode illustrates the importance of early and meaningful industry engagement in designing effective WBL programmes. The success in securing committed industry partners underscores the value of co-creation in bridging academic learning with real-world application, ultimately ensuring graduates are equipped with future-ready skills.

Take-home message:
Meeting industry demands and addressing market needs remain the central focus of curriculum development.

ABSTRACT ID:
EPF-CUD02

Early career research training on Grant writing & Research Management

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Background:
Research capacity building is crucial for early-

career health professionals to foster evidence-based practice and enhance healthcare outcomes. In low- and middle-income countries (LMICS), barriers such as limited training opportunities, insufficient mentorship, and a weak research culture often hinder the development of research skills. The objectives of this study are to Assess the impact of a structured training program on research and grant writing skills among early career professionals, evaluate its effectiveness, and gather participant feedback for future course enhancement.

Methods:
A sequential exploratory mixed-methods study was conducted. A needs assessment survey was followed by a blended learning workshop series, delivered through online platforms with in-person assessments and presentations. Thirteen interactive sessions focused on literature review, data analysis, and grant proposal development. The program was evaluated using the Kirkpatrick model at three levels: reaction, learning, and behaviour. Qualitative data were collected through focus group discussions (FGDs).

Results:
Among 183 participants from 68 institutions in 17 cities, the majority were female (61.7%) with a mean age of 28 years. Over 66% had minimal or no prior research experience. Key barriers included lack of training opportunities (47%), poor workplace research culture (39%), and high clinical workload (38%). Participants reported high satisfaction with the course format and content. They demonstrated improved understanding of research and grant writing concepts and planned to apply the skills in their workplaces. FGDS highlighted three themes: positive impact on learning and professional identity, suggestions for improved delivery, and increased collaboration and peer networking.

Conclusion:
The training significantly enhanced participants' research competencies and motivation. Well-structured, accessible programs with practical components and mentorship can effectively strengthen research capacity among early-career professionals in LMICS.

Take-Away Message:
Structured, accessible research and grant writing training can significantly empower early career professionals in LMICS to overcome barriers and actively engage in meaningful research.

ABSTRACT ID:
EPF-CUD03

Incorporating a Sex and Gender Lens into Medical Education in Pakistan

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Background:
The World Health Organization, in alignment with Sustainable Development Goal 5 to achieve gender equality and empowerment of women and girls, recommends the inclusion of sex and gender considerations in medical education curricula. Little is known about whether the influence of biological sex and gender on disease presentation, pathogenesis, management, and outcomes is adequately incorporated in medical education in low- and middle-income countries such as Pakistan. We conducted an exploratory qualitative study to understand faculty and students' perspectives on the inclusion of sex- and gender-related content at two universities in Pakistan.

Methods:
Using purposive sampling, 16 faculty members were recruited for in-depth interviews and 14 medical students for focus group

discussions, with equal gender representation (15 males, 15 females) from the provinces of Sindh and Khyber Pakhtunkhwa. Data were collected using validated semi-structured interview guides, with each interview lasting 45–60 minutes. All recordings were analysed inductively in NVivo version 1.7.1 to identify themes.

Results:
Six key themes emerged with sub-themes: (1) conceptual understanding of sex and gender; (2) existing curricular gaps; (3) faculty training for sex- and gender-sensitive teaching; (4) gender representation in medical specialties; (5) research opportunities; and (6) curricular integration (including importance, timeliness, acceptability, barriers, facilitators, strategies, and assessment). While participants understood the concept of sex and gender, they felt its integration into teaching sessions and research was limited and not explicit. Barriers identified included a densely packed curriculum, lack of awareness, cultural resistance, insufficient faculty training, and the absence of institutional policies. Recommended strategies included leadership engagement, systematic curriculum mapping and integration, and faculty training. All participants recognized the timeliness of this intervention and anticipated long-term improvements in patient outcomes.

Conclusion:
This study highlights the need and identifies strategies for explicit integration of sex and gender related content in medical education in Pakistan.

Takeaway Message:
Explicit integration of sex- and gender-related content in medical education curricula in Pakistan is urgently needed. Addressing existing barriers through leadership engagement, faculty training, and systematic curriculum revision can enhance gender-sensitive teaching and research, ultimately improving patient outcomes and supporting global gender equality goals.

ABSTRACT ID:
EPO-CUD04

Psychiatry Training Course: Does it Affect Attitude of Undergraduate Medical Student Towards Mental Illness and Psychiatry?

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Background:
As recent research has indicated a rising worldwide burden of mental disease as well as a growing incidence rate of psychiatric illnesses, the stigma mental health illnesses harbor has never been higher. Health professionals must try their best not to be affected by this stigma for effective health care to be conducted. To test if future doctors retain their expected negative outlooks on mental patients, we aimed to assess the attitude of 5th year medical students towards psychiatry before and after clinical psychiatric course.

Subjects and Methods:
Ninety-three medical students, who were divided into three blocks, completed the Attitudes Towards Psychiatry [ATP-30] in a prospective study. Unfortunately, Because of Corona pandemic the third block received online teaching session without meeting real patients.

Results:
We had 93 patients divided over 3 blocks, and the Ratio of female to male participant students was nearly 1.6:1. Among them, no statistically significant differences have been found regarding ATP score, and general attitude towards psychiatry among hospital attendance group and among the online studied group before and after the course [$P<0.05$]. However, favourable attitudes

toward psychiatry were increasing observably after attending the course [20.4%, 43%]. Hospital learning students held more increase in the favourable attitude [23.1%,49.2] in comparison to online learning students [14.3%, 28.6].

Conclusion:
longer clinical rotation for medical students in mental health settings for at least 4 weeks or longer could influence medical students' opinion about psychiatry positively; medical schools should also promote research, discussions, and seminars on different psychiatric illnesses in order to enhance awareness among the students.

Takeaway Message:
Longer clinical rotation for medical students in mental health settings for at least 4 weeks or longer could influence medical students' opinions about psychiatry as a discipline positively.

ABSTRACT ID:
EPF-CUD05

Leveraging AI to Enhance Education Efficacy: The Imperative for Aligning Curriculum, Instruction, and Assessment

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Background:
Assessment is a critical component of education, providing feedback on the achievement of learning objectives. When aligned with curriculum and instruction, assessments yield accurate, reliable measures of student progress. However, in medical education, where vast amounts of information must be mastered, this alignment is often lacking. Misalignment can lead to student underperformance, frequently misattributed to individual shortcomings rather than systemic issues. This study investigates whether AI technology can enhance the alignment of assessment, curriculum, and instruction in medical schools, improving student outcomes.

Method:
We analysed data from over 30% of allopathic and osteopathic medical schools in the U.S. Using AI-driven tools, we examined how assessments correlated with instructional content and curricular objectives. The AI functioned as a reference librarian, integrating data across educational platforms to identify inconsistencies between what was taught and what was tested.

Results:
Our findings revealed frequent misalignment due to the decentralized nature of curriculum design, instruction, and assessment. In many cases, different groups were responsible for each component, leading to gaps in content coverage. AI-assisted analysis identified specific discrepancies, helping institutions restructure their assessment strategies to ensure coherence with instructional materials. Schools that implemented AI-driven alignment strategies reported improved student performance and a more cohesive educational experience.

Conclusion:
AI technology offers a powerful solution for ensuring assessments accurately reflect curriculum and instruction. By addressing systemic misalignment, AI enhances educational consistency, reducing undue student burden and improving learning outcomes. This study underscores the need for institutions to adopt AI-driven approaches to optimize the assessment process in medical education.

Takeaway Message:
The alignment of standard, written curriculum, taught curriculum, and assessed curriculum is often taken for granted. Given the vast quantity of information in a medical education schools should leverage the power of AI to improve their alignment and student outcomes.

Educational Technology

ABSTRACT ID:
EPF-EDT01

360 Immersive Learning Space: Transforming Education for Healthcare Students

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The higher education landscape is undergoing a significant transformation, driven by technological advancements and a growing demand for innovative pedagogical approaches. Immersive Interactive Learning Spaces (IILS) represent a transformative shift in educational environments by leveraging advanced technologies to create engaging, dynamic, and student-centred learning experiences. This shift aligns with the increasing emphasis on experiential learning, in which learners actively construct knowledge through hands-on immersion (Kolb, 2014).

Background:
As educational institutions adopt immersive learning technologies, understanding students' perceptions and experiences becomes crucial. Gaining insight into how students engage with IILS can inform the development of effective interventions to optimise learning and promote meaningful engagement. Therefore, the project aims to study the students' experiences in an immersive interactive learning space with a focus on

1. What are the perceptions of students engaged in an immersive interactive learning space?
2. What challenges are faced by the students engaged in an immersive interactive learning space?

Method:
This study aimed to explore students' perceptions, engagement, and challenges within immersive learning environments. Feedback was collected from 30 healthcare students after using the Immersive Interactive Learning Space (IILS) at IMU University.

Result:
The survey revealed highly positive feedback, with 94.7% of students indicating that IILS enhanced their learning outcomes. Realism (73.7%) and active engagement (63.2%) were especially appreciated, while 52.6% highlighted gamification as a motivational factor. However, one student described the experience as "overwhelming," likely due to complex navigation or excessive sensory input, which can redirect cognitive effort away from learning.

Conclusion:
The findings affirm the transformative potential of IILS in supporting experiential, student-centred learning and advancing SDG 4, Quality Education. Nevertheless, issues like cognitive overload must be addressed. Recommendations include simplifying design, providing scaffolded onboarding, balancing immersive stimuli with educational content, incorporating adaptive features and continuous improvement through student feedback.

Takeaway Message:
IILS represent a powerful tool for modernising education, while their benefits are clear. This project might hint to the educators on developing the immersive content per their curriculum by addressing the cognitive barriers. With that, educators can unlock the full potential of these environments, ensuring they serve all learners effectively, preparing them not just for exams, but for the complexities of real-world professional practice.

ABSTRACT ID:
EPF-EDT03

Impact of Generative AI on Learning, Teaching and Assessment in Health and Medicine

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Background:
The rapid advancement of Generative Artificial Intelligence (Gen-AI) presents transformative opportunities for health and medicine education. However, students and educators are seeking guidance on the practical as well as the responsible and ethical use of Gen-AI. The aim of this project was to devise and evaluate practical guidelines and use-cases to guide the responsible and ethical use of Gen-AI for students during their training and future work as a health professional.

Methods:
We co-created educator and student Gen-AI guidelines and use-cases for health and medicine courses at an Australian university. The Gen-AI guidelines and use-cases were disseminated and evaluated. The evaluation was conducted using a mixed-methods approach combining quantitative surveys and qualitative semi-structured interviews with educators and students. All students and educators involved in health and medicine courses were invited to participate. Ethical approval was obtained from the institution and all participants provided informed written consent.

Results:
The evaluation was undertaken by 45 students and 15 educators who had participated in over 30 health and medicine courses. Most students (80%) and educators (100%) self-rated their Gen-AI proficiency as beginner or intermediate. Over two-thirds of students (66%) and approximately half of the educators (40%) utilised GenAI for learning, with the majority using ChatGPT. Only one-third of students found GenAI easy to use (33%) and were confident to write a prompt (39%). Most students (45%) reported that Gen-AI aided their understanding of difficult concepts but did not notice any impact of Gen-AI on their academic performance (50%). Educators most frequently used Gen-AI for developing student learning and assessment activities and resources.

Conclusion:
This research will contribute to the understanding of how Gen-AI can be effectively and ethically utilized in health and medicine education, providing valuable insights for educators, policymakers, and technology developers.

ABSTRACT ID:
EPF-EDT04

Developing a Large Language Model for a Self-directed Triage training program using Artificial Intelligence

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Background:
Triaging is a key activity in Emergency department. Triaging involves vital parameter values and the triage history. Triaging also depends to a certain extent on the local demographics, disease patterns and practice guidelines. This makes training triaging ideally unique to that region or hospital. This uniqueness is not captured in traditional triage training programs and most definitely not in self-directed programs. Therefore, this study attempts to develop such a program using Artificial Intelligence (AI) technologies.

Methods:
This training program will be developed in two stages. In stage one a Large Language Model (LLM) was developed using historical triage data for 3 years from a Metropolitan large hospital in Victoria, Australia. The data used included the numerical vital sign parameters and the triage notes. This step is already developed. Thereafter, in the second stage, a scenario based online triage program will be developed and will be hosted in a Moodle platform. The triage categories picked by candidates will be compared against the ideal answer generated by the LLM.

Results:
Results of Stage one showed that the best model derived out of the data was a Random Forest machine learning algorithm which had an F1 score of 0.85. Out of the individual triage categories the best prediction was for Category 2 (82% accuracy) and the next was Category 1 and 3 (64% accuracy). The generated model was tested for 10 scenarios each with 3 experienced triage officers where the accuracy was verified to be over 87%.

Conclusion:
This project proves that AI technologies can develop a model that can mimic triaging in a particular hospital with a satisfactory accuracy. However, the generated model is unique to that region or hospital. But the method used in this study can be easily used to develop such a specific triage model for a

Takeaway Message:
AI technologies can be used to develop a successful triaging model for a particular hospital, that can thereafter be used to develop a self-directed unique triage training program.

ABSTRACT ID:
EPF-EDT05

Enhancing Interprofessional Education Through AI: A Pilot Study Using the Myai Teaching Assistant

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Background:
Interprofessional Education (IPE) is a vital educational strategy that promotes teamwork and collaborative practice, essential for delivering high-quality patient care. Despite its benefits, the effective implementation of IPE often faces significant challenges, including logistical barriers and limited faculty expertise, particularly in smaller or single-discipline healthcare institutions. Addressing these challenges, this research explores the potential of MyAi Teaching Assistant, an innovative artificial intelligence-driven platform, to create virtual, interactive, and collaborative learning environments. This pilot study aims to develop and implement an AI-driven IPE module using the MyAi Teaching Assistant to overcome traditional barriers in IPE delivery. It also seeks to evaluate the module's effectiveness in enhancing interprofessional competencies among healthcare students.

Method:
A mixed-methods design will be adopted, guided by the ADDIE instructional framework and aligned with the Interprofessional Education Collaborative (IPEC) core competencies. Quantitative evaluation will involve pre- and post-intervention assessments using the validated Interprofessional Attitudes Scale (IPAS), while qualitative insights will be collected through focus group discussions. The module will be implemented in three phases: pre-class individual learning and pre-test via the MyAi platform; in-class collaborative discussions based on IPEC scenarios; and post-

class feedback, competency assessment, and reflection. Data analysis will include descriptive statistics and thematic analysis to evaluate changes in competencies and engagement.

Result:
The study is expected to highlight the potential of AI integration in healthcare education to deliver efficient, scalable, and accessible IPE.

Conclusion:
In conclusion, this pilot study proposes that integrating the MyAi Teaching Assistant into IPE may effectively address existing barriers and enhance collaborative competencies among healthcare students. The anticipated findings could provide valuable insights into the benefits and feasibility of AI-supported IPE, guiding future educational strategies aimed at improving teamwork and ultimately advancing healthcare delivery.

Takeaway Message:
Integrating AI through the MyAi Teaching Assistant has the potential to significantly enhance IPE by overcoming traditional implementation barriers. The pilot study anticipates that AI-driven IPE modules will improve healthcare students' competencies in collaboration, foster positive attitudes towards teamwork, and increase engagement, ultimately contributing to better healthcare outcomes.

ABSTRACT ID:
EPF-EDT06

Harnessing Educational Technology in Health Science Education in Cambodia: Current Trends and Future Directions

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Background and significance:
Educational technologies are key to the transformation of health professionals' education. Their use in medical and health education present both opportunities and challenges in low- and middle-income countries (LMICs) like Cambodia. Leveraging current and emerging technologies for digital health education can fill existing gaps and enhance the sustainability, quality, and accessibility of health professionals' education.

Objective:
To investigate existing educational technology use in the training of Cambodian health professionals, assess its benefits, and recommend future directions for a sustainable integration that meets international standards.

Methods:
Review and interpret existing data from peer-reviewed publications. Data from relevant studies and reports were analysed and compared to determine current deployment of digital tools, technology-enhanced learning, and blended learning models in Cambodian health education settings.

Findings:
Evidence shows that Cambodian health education institutions have included online learning tools and mobile-based platforms as education strategies since the COVID-19 pandemic outbreak. Still, the primary obstacles persist: insufficient legislative support, restricted faculty training, and sub-optimal digital infrastructure. Virtual lab and simulation technologies are used infrequently, and internet connection in rural regions remains uneven. Nevertheless, hybrid approaches and locally relevant digital material, and pilot projects backed by global organizations have delivered improvements in learning outcomes and student engagement.

Conclusion
The adoption of educational technology in Cambodian health professions education is improving, but in an inconsistent, dispersed manner. To ensure sustainable progress, we suggest (1) development of a national strategy

for digital education in health sciences, (2) investment in digital infrastructure and faculty capacity-building, and (3) fostering regional and global partnerships to adapt and upscale proven educational technology innovations. This will enhance the quality and resilience of health workforce training and prepare Cambodia's health professionals for local and global health challenges.

Keywords:
Cambodia, Educational technology, E-learning, Faculty development, Health science education, Sustainable education

ABSTRACT ID:
EPF-EDT07

Detection of Heat Related Illness via Retinal Scan Application: A pilot study

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Background:
Heat stroke is a life-threatening condition characterized by hyperthermia, systemic inflammation, and multi-organ dysfunction, requiring prompt diagnosis and treatment to prevent morbidity and mortality. Traditional diagnostic methods, such as clinical assessment and core temperature measurements, are often invasive and time-consuming, limiting their effectiveness in early detection. Recent advancements in retinal imaging technology suggest that retinal scans may offer a non-invasive alternative for detecting physiological changes associated with heat stroke. This pilot study, titled HEATRISE (HEAT Retinal Scan Evaluation), aims to evaluate the feasibility and effectiveness of using retinal scan applications to detect heat related illnesses.

Methodology:
The study employs a cross-sectional design with universal sampling, targeting 30 individuals diagnosed with heat related illnesses. Participants will undergo retinal scans using a retinal imaging application which assesses pupillary light reflex (PLR) and smooth muscle pursuit (SMP). Data collected will include demographic information, clinical symptoms, and core body temperature measurements. Retinal images will be analysed for PLR and SMP. Statistical analysis will determine the correlation between retinal changes and heat related illness.

Discussion and conclusion:
The expected outcomes of this study include the usability of a non-invasive, rapid screening evaluation for heat related illness. The result of this study will improve early identification and initialization of treatment for heat related illness. The retinal scan application holds great promise for education across various learning domains. It provides a non-invasive way to train students in diagnostic techniques, ensuring that learning can take place without causing any discomfort to patients. Students can engage in hands-on training, receive immediate feedback on their skills, and learn how to integrate technology into their practice. This approach not only enhances their understanding of diagnostics but also prepares them for real-world applications in a compassionate and effective manner. The study findings will have transformative educational opportunities that extend beyond traditional medical training. The integration of retinal scan technology into medical curricula represents a paradigm shift toward evidence-based, technology-enhanced learning.

Results:
The retinal scan application holds great promise for education across various learning domains. It provides a non-invasive way to train

students in diagnostic techniques, ensuring that learning can take place without causing any discomfort to patients. Students can engage in hands-on training, receive immediate feedback on their skills, and learn how to integrate technology into their practice.

Conclusion:
The study findings will have transformative educational opportunities that extend beyond traditional medical training. The integration of retinal scan technology into medical curricula represents a paradigm shift toward evidence-based, technology-enhanced learning.

ABSTRACT ID:
EPF-EDT08

Developments in E-Learning in Undergraduate Otolaryngology Education During the COVID-19 Pandemic: A Scoping Review

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Background:
The COVID-19 pandemic necessitated a rapid shift to e-learning, presenting global challenges for workplace-based undergraduate clinical training. Educators experimented with various digital solutions to overcome these hurdles. This review aims to identify and synthesize effective e-learning strategies in otolaryngology education from this period. Reviewing these experiences can help identify innovations worth continuing or refining, thus contributing to global strategies in health professions education. Clinical education is inherently complex and varies significantly across specialties, each with unique challenges. Specialty-focused reviews, such as this one on otolaryngology, can inform clinician-teachers about relevant e-learning developments, contributing to future pedagogy and sustainable innovations. Educators may also like to explore the current practice status of these methods with further inquiry.

Methods:
This review followed Arksey and O'Malley's five-stage framework. A comprehensive search of Google Scholar and PubMed identified peer-reviewed articles, from which seven were selected for review after assessing their quality using Joanna Briggs Institute (JBI) appraisal tools. Data were then extracted, charted, and summarised into an analytical report.

Results:
Well-developed online teaching enhances communication, clinical reasoning, and confidence. They also foster telemedicine skills. Virtual outpatient rotations and head-neck physical examinations are effective alternatives. Mobile tele-education enhances essential skills; a blended approach may optimize learning outcomes. E-learning is highly satisfactory as a supplementary tool, and outsourcing Flipped-Classroom online components save clinical teachers time without compromising educational quality.

Conclusion:
Developments in otolaryngology e-teaching during COVID-19 were encouraging, primarily in high-income countries. Despite limitations, the overall trend was positive. However, limited technological resources may hinder the global adoption, sustainability, and equitable access of eLearning. To facilitate global health professions education in this field, otolaryngologists can adopt and enhance e-teaching methods for curriculum integration, considering diverse stakeholder needs. Furthermore, ongoing development and evaluation, especially in resource-limited settings, are essential for achieving higher-order learning outcomes and knowledge retention.

Takeaway Message:
- Considering otolaryngology's typically small curriculum presence in undergraduate medical education, the identified developments in e-learning strategies during the pandemic seems encouraging.
- Carefully designed eLearning methods

may offer effective tools for developing essential clinical skills like clinical reasoning/communication skills.
- Virtual learning environments, such as virtual outpatient rotations and simulated physical examinations, may serve as effective and accessible alternatives or supplements to traditional clinical experiences, potentially expanding learning opportunities beyond geographical limitations.
- Mobile tele-education and well-developed phone applications may offer promising avenues for reinforcing basic ENT learning and fostering telemedicine skills among students.
- Reflecting on the diverse e-learning strategies adopted during the pandemic offers valuable insights for the sustainable globalisation of clinical education.

ABSTRACT ID:
EPO-EDT09

AI, Intelligence, and the Human Mind: Demographic Disparities in Cognitive Impact and Digital Dependency

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Background:
Artificial Intelligence (AI) has become integral to medical education, transforming learning methodologies, clinical decision-making, and research workflows. While AI enhances knowledge acquisition and diagnostic efficiency, concerns about cognitive offloading, attentional control, and digital dependency remain underexplored. This study examined the impact of AI on cognitive performance, including memory, attention, and problem-solving skills, among medical undergraduate and postgraduate students. It also explored demographic disparities in AI dependency among medical students.

Method:
A cross-sectional survey was conducted with 482 medical students (60% undergraduate, 40% postgraduate), with sample size determined using a 95% confidence level and 5% margin of error. Three validated psychometric instruments were used: AI Dependency Scale (AIDS), Cognitive Failures Questionnaire (CFQ) and Digital Media Overuse Scale (dMOS). Data were analysed using descriptive statistics, ANOVA, and multiple regression modelling.

Results:
Undergraduates exhibited higher CFQ scores (mean = 44.2 ± 7.5) than postgraduates (mean = 39.1 ± 6.8; $p < 0.01$). AI dependency was significantly higher in students aged 18–25 (mean = 32.1 ± 5.3) compared to those aged ≥30 (mean = 26.4 ± 4.9; $p < 0.001$). Gender differences showed higher AI dependency among females (mean = 30.8) vs. males (mean = 29.2), though not statistically significant ($p = 0.07$). Regression analysis identified age and academic level as significant predictors of AI dependency and cognitive performance ($R^2 = 0.45$, $p < 0.001$).

Conclusion:
Medical students, particularly undergraduates, exhibit increased cognitive reliance on AI, raising concerns about long-term adaptation and digital overuse. The findings underscore the need for structured AI literacy programs and educational interventions to ensure responsible AI integration while promoting cognitive resilience.

Takeaway Message:
Over-reliance on AI is diminishing cognitive resilience in medical students, necessitating structured literacy programs to ensure responsible integration and independent thinking.

ABSTRACT ID:
EPO-EDT10

Towards Representative GenAI in Health Professions Education: Detecting and Correcting Demographic Bias in AI-Powered Simulation Education

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Background:
Generative AI (GenAI) is increasingly deployed in health professions education, particularly for simulated patients and instructional imagery. However, concerns have emerged regarding demographic bias in AI-generated outputs, with potential consequences for equity, realism, and global applicability. This study presents a multi-method analysis of demographic representation across simulated 'patient' cohorts (GPT-3.5, GPT-4-mini) and AI-generated 'clinical' images (DALL·E 3, Midjourney). Quantitative comparisons against national census and survey benchmarks revealed significant overrepresentation of lighter skin tones, males, and middle-aged adults, alongside the near-complete absence of certain ethnic and age groups. However, prompt-based interventions incorporating demographic data achieved marked improvements in representativeness.

These findings raise important questions about the readiness of current GenAI models for use in inclusive medical training environments. Inaccurate or stereotyped representations may undermine educational authenticity, reinforce existing disparities, and skew students' expectations about the patient populations they will encounter in practice.

Building on this analysis, we propose a framework for systematically auditing AI tools in medical education. Central to this is the development of an "AI report card" to evaluate models on key dimensions of demographic safety, regional appropriateness, and educational validity. The report card is designed to support educators and institutions in selecting GenAI tools that align with their curricular and equity goals.

This work contributes to ongoing international efforts to ensure that the globalisation of health professions education is underpinned by principles of fairness, inclusivity, and contextual relevance. Future work will validate the framework across diverse educational settings and explore model fine-tuning and prompt engineering strategies to ensure safer, more representative AI-assisted simulation.

ABSTRACT ID:
EPO-EDT12

Revolutionizing Medical Education: Evaluating the Impact of Artificial Intelligence-Driven Personalized Learning Pathways on the Academic Outcomes

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Background:
Artificial intelligence allows each student a learning experience personalized to their requirements and interests. Traditional teaching methods often overlook individual differences, while Artificial intelligence-driven personalized learning pathways allow students to tailor lessons to their learning style, pace, and expertise.

Objective:
This randomized study aims to ascertain how individualized learning routes driven by artificial intelligence influence the academic performance of fourth-year medical students. It especially investigates whether artificial intelligence can design a learning environment more intriguing, adaptable, and efficient than conventional instruction approaches.

Methodology:
One hundred fourth-year medical students from Riphah Islamic International University participated in the study and were enrolled in a general surgery program and the topic was "Acute Abdomen". Participants were randomly assigned to either an experimental group or a control group based on their pre-test results. Both groups performed a post-test after an hour of study using artificial intelligence-driven personalized learning pathways generated by ChatGPT4 (experimental group) and conventional methods (control group). Afterward, groups shifted their learning strategies before sitting the final test using a crossover plan. The Institutional Review Board of the institution approved ethically, and pilot research confirmed the accuracy of the instruments. Performance was examined using effect size estimates, descriptive statistics, and t-tests.

Results:
Data analysis included descriptive statistics, independent-samples t-tests, paired-samples t-tests, and effect sizes (Cohen's d) using SPSS version 26. Initial pretest scores showed no significant difference between the experimental group (M = 17.12, SD = 6.99) and the control group (M = 18.64, SD = 6.91, t(98) = 1.094, p = 0.277). Post-intervention, the experimental group (M = 22.8, SD = 5.11) significantly outperformed the control group (M = 19.24, SD = 7.11, t(98) = 2.875, p = .005, Cohen's d = 0.58). Gain calculations highlighted a notable score increase in the experimental group (mean change = 5.6 points,

ABSTRACT ID:
EPF-EDT14

Trends in the usage of the Learning Management System by the students in a Malaysian University

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Background:
The usage patterns of Learning Management system (LMS) can yield valuable insight into student behavior and inform efforts at making the experience of digital learning better. Understanding these trends is critical for addressing gaps in LMS adoption and for developing strategies to enhance its role in higher education. This study aims to identify trends and patterns in the usage of LMS, such as peak usage times and variations across the academic calendar.

Method:
This study employs a quantitative, descriptive approach. The data for this study were extracted from the LMS database, spanning from 2023 to 2024, specifically focusing on user logs that record interactions within the platform. The study examines user engagement trends and seasonal patterns in the LMS used at a Malaysian university, highlighting fluctuations in activity and user behavior throughout the year.

Results:
Peak usage occurred between September and November for both years, 2023 and 2024, with over 2.1 million total accesses and 4,823 unique users. The unique monthly user count ranges between 4,300 and 4,900. There was increased activity from September to November, followed by reduced engagement in December and February. On average, user access per month remained between 25 and 29 accesses per user, showcasing stable interaction dynamics. Access patterns show the highest access between 1 PM and 3 PM, followed by 8 AM and 9 AM, and then slowly increase between 8 PM and 10 PM. In contrast, the lowest levels of access are between 2 AM and 5 AM.

Conclusion:
The LMS experienced peak usage between September and November, and between 1PM to 3 PM, indicating a crucial window for educators to engage with students. These insights areal so valuable for system

administrators, enabling them to plan technical upgrades and maintenance.

Takeaway Message:
LMS usage data offers actionable insights into student engagement patterns. Institutions can leverage these trends to optimize student support.

Faculty Development

ABSTRACT ID:
EPO-FDP01

Experience in using commitment-to-change statements in the AO faculty education program

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Background:
The AO Foundation initiated the Faculty Education Program (FEP) to elevate and standardize the 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.

The FEP course runs over six-weeks. The intended learning outcomes 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 and manage time and logistics.

At the end, each participant filled in a CTC statement describing one or more changes in teaching behaviour that he/she would commit to. One copy was returned to the participant and another retained by AO. Three months later, an email questionnaire was sent to each participant to follow-up on his/her CTC. Extent of change in behaviour was divided into "full", "partial" or "nil". The reasons were documented using free text. Number of learners taught by participants within this same period was recorded.

Convenience sampling of 71 participants from five FEP courses from 2018 to 2023 was analysed. 93% made "full" or "partial" changes. 7% reported "nil" changes. Common barriers to change include "no opportunity", "too busy" and "staged changes". Others include "comfortable with previous style", "lack of feedback" and lack of favourable response to attempted change in behaviour. 2431 learners were taught by participants in the same period.

Using CTC statements in FEP courses is feasible. CTC increases the likelihood of behavioural change and increased awareness of barriers to change. The organizers can then address these barriers.

Takeaway Message:
CTC statements promote reflection, motivation and accountability to change behaviour. Barriers to change may be internal or external. Including CTC statements in FEP courses is feasible. CTC increases the likelihood of change in behavior. Better awareness of the barriers to change allows the AO foundation to address these barriers and further increase the likelihood of change.

ABSTRACT ID:
EPF-FDP02

The FAIMER Institutes – Revolutionizing global faculty development

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Background:
Background: Over the past two decades, FAIMER, a division of Intealth has contributed significantly to faculty development globally in health professions education. This symposium examines the FAIMER programs using the strategies, stakeholders, and sustainability frameworks.

Strategies:
Besides the International FAIMER Institute (IFI) in Philadelphia, there are/were FAIMER Regional Institutes (FRI)s in Brazil, Chile, China, Egypt, India, Indonesia, South Africa, and Uganda. FAIMER offers a two-year fellowship in health professions education (HPE) with onsite sessions providing an immersion experience and online learning between sessions. Since the pandemic, the IFI and some FRIs have moved completely online. The fellowship is closely linked to the fellow's home institution (HI) with an education innovation project (EIP) supported by and carried out at the HI. FAIMER organizes regular webinars to strengthen fellows' skills.

Results:
The FAIMER global community has played a vital role in strengthening education, healthcare, and regulatory systems in several developing nations. Fellow's research and leadership skills are strengthened through the conduct and publication of the EIP. FAIMER works with different stakeholders, including medical schools, educators, fellows, alumni, policymakers, and regulators. FAIMER has successfully created a community of practice (COP). Fellows may be invited as faculty for subsequent cohorts, strengthening linkages. The FAIMER family (FAIMERly) meets in person at conferences and workshops, strengthening relationships.

Research, sustainability:
FAIMER designs and conducts studies focused on international HPE, including the quality of medical schools and their graduates, international accreditation, licensure, and certification processes. The FRIs are funded by FAIMER through a generous grant from Intealth. Over the years, FRIs have added tuition fees paid by the fellow/HI, ensuring program sustainability.

Conclusion:
With over 2000 fellows and alumni from 59 countries, FAIMER has created a vibrant network of global health professions educators who have influenced country, regional, and global educational policy and practice.

Takeaway Message:
FAIMER, a division of Intealth, enhances faculty development in health professions education (HPE) through its International FAIMER Institute (IFI) located in the USA, and FAIMER Regional Institutes (FRIs) located globally. A core feature of these programs is the institutional project, enabling fellows to apply their learning directly to their work environments.

Over 2,000 fellows from 59 countries have participated, creating a global network of HPE educators driving change.

FAIMER designs and conducts studies focused on international HPE, including the quality of medical schools and their graduates, international accreditation, licensure, and certification processes.

ABSTRACT ID:
EPF-FDP03

Faculty Development for Competency-Based Education in Health Sciences: Adapting Course Development to Resource Constraints at Health Sciences Institute of Royal Cambodian Armed Forces

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Background:
Competency-based education (CBE) is essential for improving health sciences training in Cambodia. The transition to the CBE framework requires substantial faculty development to ensure improvement in quality. Efficient course development is crucial for integrating the CBE curriculum with the national core competency framework (CCF) and program learning outcomes (CLOs). This approach requires organized procedures and effective faculty strategies, especially in situations with limited resources. HSI-RCAF designed CBE courses to emphasize the problems and insights gained.

Method:
The Bachelor of Science in Medical Laboratory Bridging program, which includes 22 courses and three policies and procedures (P&Ps), was developed to align with the national CCF. Using the Plan-Do-Study-Act (PDSA) cycle for continuous monitoring and quality improvement, the CBE model was implemented in four phases: Phase I (nine courses), Phase II (eight courses), Phase III (five courses), and Phase IV (three P&Ps). GIZ experts led a Technical Working Group (TWG) that set timetables, templates, and methods. Each member created a course with weekly feedback. Experts taught members about CLO establishment and constructive alignment using the national CCF. Teaching experts assessed course drafts and held reflection sessions to improve them.

Result:
TWG completed 17 courses in three months, focusing on transforming from content-based to competency-based curricula and technology-enhanced methods like artificial intelligence. They gained knowledge of curriculum mapping and teamwork skills. However, challenges like language barriers, technological issues, and inconsistent access to documents hindered progress. The initiative highlights the need for structured communication and better resource allocation.

Conclusion:
To improve future course development, adopting a proactive, flipped model can enhance engagement and discussions. Smaller group collaborations will promote idea exchange, while ongoing dialogue will strengthen alignment with the CCF. Future efforts should prioritize developing assessment blueprints and integrating materials into Learning Management Systems to meet student and faculty needs effectively.

Takeaway Message:
Faculty development is crucial in the transition phase toward competency-based education.

ABSTRACT ID:
EPO-FDP04

Developing a Remote International Mentoring Scheme (RIMPS) for Undergraduate Medical Education in Conflict Zones

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Background:
In war-torn regions, traditional medical education is severely disrupted due to lack of infrastructure, faculty shortages, and safety concerns. The Remote International Mentoring Programme Scheme (RIMPS), a collaboration between the Health Education Support Group (HESG) and Global Health Partnerships, aims to bridge this gap by providing structured, virtual mentorship to aspiring medical educators in foundational sciences.

Methods:
Experienced global mentors—professors, specialists, and senior educators—are matched with mentees who wish to specialize in and teach core subjects (e.g., Anatomy, Physiology, Microbiology). Mentorship includes biweekly virtual meetings, curated learning resources, assignments, and workshops designed to develop both subject expertise and teaching skills. Once trained, mentees begin teaching students independently. They are encouraged to answer student queries on their own, consulting mentors only when needed. Mentors also assist in designing and adjusting national curricula tailored to local needs.

Results:
RIMPS successfully supported the development of a national foundation-year curriculum adaptable to each participating medical school's context. Mentees demonstrated improved teaching confidence, content mastery, and professional development. The programme also enriched mentoring capabilities for UK-based participants. Despite ongoing instability, consistent support was maintained using flexible communication tools such as Zoom, Telegram, and mobile calls, enabling immediate response and continuous engagement.

Conclusion:
RIMPS illustrates the transformative power of remote mentorship in supporting sustainable medical education in conflict zones. By empowering local educators through global expertise, the programme fosters long-term academic resilience and offers a scalable model for use in other resource-limited or crisis-affected regions.

Takeaway Message:
The Remote International Mentoring Programme Scheme (RIMPS) exemplifies how academic institutions can play a pivotal role in strengthening medical education in conflict-affected regions. By leveraging remote mentorship, institutions contribute to humanitarian efforts, foster international academic collaboration without political entanglement, and support long-term development through capacity-building of local educators. This scalable model demonstrates the potential of academia to drive sustainable impact beyond borders.

ABSTRACT ID:
EPF-FDP05

The Functional Elements of Entrusted Professional Activities for Dental Educators: A Scoping Review

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Background:
Entrustable Professional Activities (EPAs) are defined as units of professional practice that can be delegated to individuals once sufficient competence and trust have been demonstrated. Originating from the framework of competency-based medical education, the EPA concept is relatively new to the field of dentistry. At present, there remains limited understanding and application of EPAs specifically for dental educators.

Objective:
This scoping review aimed to systematically explore the extent, range, and nature of the literature on EPAs for dental educators, addressing the research question: What are the key functional elements of EPAs for dental educators as described in the existing literature?

Methods:
This scoping review was conducted following the framework proposed by Arksey and O'Malley, with enhancements based on the Joanna Briggs Institute (JBI) guidelines. A comprehensive search was carried out across five electronic databases—PubMed, Google Scholar, Scopus, Cochrane Library, and ProQuest—supplemented by a grey literature search covering the period from 2005 to 2024. Articles were screened using predefined inclusion and exclusion criteria. Data were extracted using a standardized extraction form, and the findings were synthesized thematically and descriptively.

Results:
A total of 1,632 records were screened, resulting in the inclusion of five articles in the final review. From these, seven overarching themes were identified, encompassing a total of 40 EPAs.

Conclusion:
The limited availability of articles underscores a significant gap in this area. This scoping review provides a comprehensive overview of the existing literature on EPAs for dental educators, laying a foundation for future research to inform and enhance EPA-related policy and practice in dental education.

Keywords:
Scoping review, entrusted professional activities, dental educators, functional elements

Professionalism and Ethics

ABSTRACT ID:
EPF-PAE02

Medical Students' Emotional Responses towards the White Coat Ceremony and Its Influence in Professional Identity Formation - A Pilot Study

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Background:
The White Coat Ceremony (WCC) marks a critical transition in medical education, symbolizing the entrance into clinical practice. While widespread, limited empirical research has evaluated the emotional experiences of students during WCC and its role in shaping professional identity.

Objectives:
To investigate medical students' emotional experiences towards the White Coat Ceremony and to explore their opinions on the significance of the event in fostering professional identity.

Methods:
A cross-sectional, multi-centre pilot study was conducted involving 51 medical students from Taylor's University Malaysia, MAHSA University Malaysia, and UCSI University Malaysia. Participants completed an online questionnaire assessing socio-demographic data, emotional states after WCC, and perceptions of WCC's impact. Data was analyzed using descriptive statistics. The internal consistency of the emotional response items was assessed using Cronbach's alpha, yielding a value of 0.837, indicating good reliability of the scale.

Results:
The majority of respondents were aged 18–25 years (78%), with balanced gender representation and predominantly Malaysian nationality. After the WCC, Medical students reported high levels of motivation, hope, focus, and confidence following the White Coat Ceremony (WCC), with average scores exceeding 4.0 on a 5-point Likert scale. Notably, feelings of anxiety were moderate, indicating that the WCC generally fostered positive emotional outcomes among participants. Over 80% of participants agreed that the WCC strengthened their bond with their medical school and enhanced their motivation to uphold professional values. Students identified professionalism, recognition of role, and accomplishment as the primary values associated with the ceremony.

Conclusion:
The pilot findings suggest that the White Coat Ceremony elicits strong positive emotional responses and reinforces key elements of professional identity among medical students. This supports its continued use and optimization as an emotionally impactful rite of passage within medical education.

Keywords:
White Coat Ceremony, Medical Education, Professional Identity, Emotional Experiences, Student Perception, Pilot Study

Takeaway Message:
The White Coat Ceremony significantly enhances positive emotional states such as motivation, hope, and confidence in medical students while reinforcing their professional identity, highlighting its value as a meaningful and impactful milestone in medical education.

ABSTRACT ID:
EPF-PAE03

Ideological Influence in Healthcare Education: A Thematic and Sentiment Analysis of Narratives from Dental Academia

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Background:
The integration of ideological perspectives—social, political, and religious—into healthcare curricula has prompted discourse regarding its impact on critical thinking, academic objectivity, and inclusivity. This study explores how such ideologies are perceived within dental education settings in Pakistan.

Methods:
Eight structured interviews were conducted with healthcare educators and students. An

inductive thematic analysis, following Braun and Clarke's six-step approach, identified core themes. Manual sentiment analysis categorized emotional tones across four domains: Concerned, Suggestive/Advisory, Skeptical, and Defensive. Additional computational analyses, including word frequency and visualizations (word cloud and thematic map), were performed using Python (NLTK, Matplotlib, WordCloud).

Results:
The overarching theme identified was "Ideological Influence in Healthcare Education: Balancing Social Accountability and Scientific Objectivity." Five sub-themes emerged: (1) reconciling scientific rigor with ethical concerns, (2) ideological bias and marginalization of topics, (3) pressure on critical thinking, (4) inclusion vs. imposition, and (5) ethics in professional conduct. Sentiment analysis showed 40% Concerned, 30% Suggestive, 20% Skeptical, and 10% Defensive tones. The word cloud highlighted recurrent concerns such as "bias," "ethics," and "critical thinking."

Conclusion:
Findings indicate that unchecked ideological imposition in dental education may suppress open inquiry, marginalize minority groups, and compromise academic rigor. Nonetheless, ethically grounded social awareness remains integral when framed without coercion.

Keywords:
Healthcare education, ideology, thematic analysis, critical thinking, ethics, sentiment analysis

Stakeholder Engagement

ABSTRACT ID:
EPF-STE01

Enhancing the Student Evaluation of Teaching (SET) Through Nursing Students' Lenses: A Generic Qualitative Inquiry

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Background:
Student Evaluation of Teaching (SET) is one of the ubiquitous methods to evaluate educators and courses by Higher Education Institutions (HEI) from the students' perspective. It plays a significant role in the quality of education.

Aim:
The existing study aimed to explore and describe the perceptions, experiences, and understanding of undergraduate and graduate nursing students regarding student evaluation of teaching (SET) to propose recommendations for the improvement of SET practices.

Methods:
A Generic Qualitative Design (GQD) was used in this study. Using purposive sampling, the data were collected through semi structured interviews from the graduate (MSN) and undergraduate (BSN, Post RN-BSN) nursing students at the private college of nursing, Islamabad. All interviews were recorded, transcribed, and subsequently analysed using the VSAIEEDC model of generic qualitative analysis.

Results:
The data analysis revealed one overarching theme: "Unlocking Excellence: SET's Influence in Nursing Education" supported with four

categories: academic opportunities for SET, academic impediments for SET, educators' and students' conduct toward SET, and suggestions for enhancing SET. Participants acknowledged the positive impact of SET on student learning, faculty growth, and curriculum improvement. At the same time, they identified several challenges, including concerns about confidentiality, limitations in the structure and timing of SET, and the lack of clarity in online evaluation processes. The conduct of both educators and students was seen as influencing SET outcomes, shaped by personal characteristics and perceptions. Finally, participants proposed concrete suggestions to improve SET practices, including increasing awareness, strengthening confidentiality, refining evaluation tools, and adopting a broader range of feedback approaches.

Conclusions:
This study highlighted the understanding and experiences of graduate and undergraduate nursing students with regards to SET. The participants acknowledged the role of SET in quality enhancement and this research illuminates the proposed recommendations to improve SET practices in the context of this study.

Student Assessment

ABSTRACT ID:
EPF-SAS01

A psychometric analysis of difficulty index, discrimination index, and distractor efficacy in single best answer questions among final-year medical students in a high-stakes examination

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Background:
One-best-answer (OBA) questions are a ubiquitous element in medical education exams. Difficulty index (DIFI), discrimination index (DI), and distractor efficacy (DE) are the traditional central psychometric characteristics that determine item quality. Each index has been well researched in isolation, while their inter-relationships are not properly researched in Malaysia. The objective of this study was to study the association between DE, DIFI, and DI under Classical Test Theory (CTT) as well as evaluate item performance in a professional medical exam.

Methods:
A psychometric cross-sectional survey was conducted with 60 OBA items administered to 129 final-year MBBS students through census sampling. The inclusion criterion was complete response data. Descriptive statistics (frequency, mean, SD) were used for item-by-item classification according to difficulty and discrimination, and distractor functionality was assessed. Pearson correlation analysis determined correlations between DIF, DI, and DE.

Results:
Twenty-five (41.6%) were too easy (DIF > 70), 25 (41.6%) acceptable (DIF 30–70), and 10 (16.7%) too difficult (DIF < 30) out of 60 items. Over half of the items (51.7%) were good discriminators (DI > 0.3), while 43.3% were marginal and 5% poor. Distractor efficiency was optimal in the difficult items (80%) and poorest in easy items (41.3%). There was a moderate positive correlation between DIF and DI ($r = 0.401$, $p = 0.002$). There was, however, a strong negative correlation between DIF and DE ($r = -0.661$, $p < 0.001$). Between DI and DE, there was no significant correlation ($r = -0.150$, $p = 0.252$).

Conclusion:
Middle-difficulty items best differentiated high- and low-achievers. Easy items had weak distractor functioning, with a quality gap. The negative correlation of DIF and DE highlights

the need for improved distractor construction, especially for easy items.

Takeaway Message:

- Questions that are moderately difficult work best for discriminating good students from poor students.
- Very easy questions usually have non-plausible distractors.
- To write good test questions, we need to check three things together: how hard the question is (difficulty index), how well it separates students by ability (discrimination index), and how well the wrong answers work (distractor efficacy).
- Quality item writing requires training and post-test analysis.

ABSTRACT ID:
EPO-SAS02

Remediation in Programmatic Assessment: Impact on student's performance

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Introduction:
Programmatic Assessment is a radical approach to assessment that encourages personal remediation. In principle, remediation refers to the student helping him/herself with support from their mentor and other faculty. Remediation and resit examinations play crucial roles within modern educational systems, providing students with the chance to enhance their academic achievements. Remediation is about the implementation of focused strategies aimed at addressing deficiencies in learning, whereas resit examinations allow students an additional opportunity to exhibit proficiency in the subject matter covered in a course. The objective of the study is to assess the effects of of remediation or resit examination on academic achievements.

Methodology:
This study used a quantitative research methodology to investigate the impact of remediation or resit examination within a single institution's programmatic assessment framework at an undergraduate academic program. The study spanned a period of six months, during which data were gathered from declared results of intermediate-level assessments administered across two successive academic years. The comparison was made between obtained scores of both groups having opportunity of remediation exam in year1 and with elimination of remediation exam in following year 2.

A purposive sampling technique was employed giving us a total sample size of 152 participants. Only those students that were enrolled in the modules that incorporated programmatic assessment were included and those who failed to enrol in or to give all assessments were excluded. Data collected comprised of declared results of three intermediate level assessments held at three different points over the academic year in two consecutive years and was subjected to descriptive statistical analysis. Statistical significance was calculated by applying Cronbach's alpha taken at a P-value of 0.05 or 5%, at a confidence level of 95%. Ethical concerns were taken into consideration while keeping the anonymity of students and institute.

Results:
Significant differences were observed among the results of the same set of students having remediation exam in year 1 and with absence of remediation exam in year 2. Remarkably improved results were observed in the year 2, having no remediation exams. P value (0.007) observed by comparative analysis of 1st mid stake held in year 1 and year 2 with same set of students, whereas P value of (0.002) was observed by comparative analysis of 2nd mid stake held in year 1 and year 2 with the same set of students. The findings of this study yielded a noteworthy observation: the exclusion of resit exams resulted in improved

academic performance of students.

Conclusion:
The outcomes suggest that the absence of remedial interventions in the form of re-sit assessments may contribute to improved performance and self-directed learning among students. It adds valuable insights for educators and policymakers in making informed decisions about the implementation and frequency of resit exams.

Keywords:
Remediation, resit exams, student performance, academic outcomes, assessment integrity, programmatic assessment

ABSTRACT ID:
EPF-SAS03

Descriptive Study: Objective Assessment of Year 4 Primary Care Medicine Students' Performance in the Outpatient Setting Using Standardized Rubrics

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Background:
Primary Care Medicine (PCM) is taught in Year 4 at University Kuala Lumpur Royal College of Medicine Perak (UniKL RCMP). Students' clinical, communication, and professional skills are assessed objectively in outpatient clinics using a detailed rubric developed by PCM lecturers.

Objective:
To describe PCM students' performance across key clinical and professional domains and examine relationships among these domains.

Methods:
PCM students are evaluated by Family Medicine Specialists (FMS) during small group teaching sessions. Each student clerks, examines, and manages a patient individually under FMS supervision. They are assessed clinically (history taking, physical examination, diagnostic reasoning, management planning, communication skills) and professionally (punctuality, interest, participation) using standardized rubrics. Scores range from poor to excellent on Likert scales: 1–6 for clinical domains and 1–3 for professionalism. Verbal feedback is given, and completed rubrics are collected as formative assessments. Descriptive analysis was done on 285 forms from 104 students (2024/2025). Mean scores and Pearson's correlations evaluated domain relationships.

Results:
Mean clinical scores (1–6 scale): communication 4.31, history taking 4.25, management planning 4.13, physical examination 4.04, diagnostic reasoning 4.01. Mean professionalism scores (1–3 scale): punctuality 2.62, interest 2.41, participation 2.48. Strong positive correlations were found between history and communication ($r=0.71$, $p<0.001$) and management and communication ($r=0.8$, $p<0.001$).

Conclusion:
Year 4 PCM students at UniKL RCMP demonstrated good clinical skills, especially in communication and history taking, alongside high professionalism. This indicates the PCM teaching approach is effective.

Takeaway Message:
Year 4 PCM students at UniKL RCMP demonstrate competent clinical and professional skills, especially in patient communication and history taking. The significant correlations between clinical domains suggest that the teaching methods effectively enhance interconnected skills, indicating the PCM program is designed to prepare students for primary care practice.

ABSTRACT ID:
EPO-SAS04

Validation of the ICO-OCEX Tool for Competency-Based Assessment in Ophthalmology Residency Programs

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Background:
Competence in medical training requires trainees to independently demonstrate practical skills. The ICO-OCEX (International Council of Ophthalmology-Ophthalmic Clinical Evaluation Exercise) tool, an improved version of OCEX (Ophthalmic clinical evaluation exercise), employs behaviorally descriptive milestones based on the Dreyfus model to address inconsistent grading interpretations and effectively assess ophthalmology residents' competencies through workplace-based assessments.

Purpose:
To determine the validity and reliability of ICO-OCEX formative assessment tool for ophthalmology postgraduate residents.

Methods:
A multiphase mixed-method instrument developmental approach was used. Quantitative content validation was conducted using the modified Delphi technique, while cognitive pretesting assessed response process validity. Pilot testing was carried out to evaluate construct validity, as well as reliability and inter-rater reliability.

Results:
The modified Delphi technique achieved consensus on all 33 items, confirming stability and a scale content validity index of 0.97. Cognitive interviews led to revisions, resulting in a 34-item instrument. Confirmatory factor analysis indicated a good to excellent model fit. Cronbach's alpha was 0.995 and Fleiss Kappa showed moderate to substantial inter-rater reliability.

Conclusion:
The ICO-OCEX tool with 34 items measuring four constructs on a three-point Dreyfus scale, showed good validity and excellent reliability. This tool can enhance formative assessment and competency development in ophthalmology residency programs, supported by faculty training for consistent application.

Takeaway Message:
The ICO-OCEX tool is a valid, reliable assessment tool that enhances clinical competency evaluation for ophthalmology residents, offering actionable feedback and supporting competency-based medical education aligned with global standards.

ABSTRACT ID:
EPF-SAS05

Resilience and Coping as Mediators between Psychological Distress and Academic Performance Among Medical Students: A Cross-Sectional Study

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Background:
Medical students often face psychological distress affecting their academic performance and well-being. While coping and resilience may buffer this stress, their roles in academic outcomes across different training stages are poorly understood. This study explored how distress, coping, resilience, and learning perception relate to academic performance across semesters.

Methods:
A cross-sectional study of 677 pre-clinical medical students was conducted in 2024 across Semesters 1, 3, 5, and 7. Standardized instruments measured psychological distress, burnout, resilience, coping, and perceptions of the learning environment. Data were analysed using ANCOVA to compare constructs across semesters. Principal Component Analysis (PCA) and Structural Equation Modelling (SEM) assessed the direct and indirect pathways linking distress to Grade Point Average (GPA).

Results:
Psychological distress and burnout increased during mid-training while resilience traits such as perseverance and help-seeking consistently decreased. Coping styles remained stable. PCA identified three latent constructs: distress, coping, and resilience. SEM revealed that distress negatively predicted GPA both directly ($\beta = -0.186$, $p < .001$) and indirectly via resilience ($\beta = 0.052$, $p = .003$). Coping was positively associated with resilience ($\beta = 0.412$, $p < .001$), but its effect on GPA was marginal. A multi-group SEM confirmed a consistent relationship across academic semesters.

Conclusion(s):
Although the effects were small, psychological distress significantly influenced academic performance, partially mediated by resilience. While coping remained stable, resilience declined and did not recover, highlighting the need for support. Interventions to enhance coping may bolster resilience and improve academic outcomes.

Takeaway Message:
This study highlights a concerning pattern for medical education: psychological distress and burnout increase as students progress through their training, while key resilience traits—especially perseverance and help-seeking—fail to recover and decline. Their role of providing protection is limited unless it is actively supported even though coping strategies do remain stable. Because addressing student stress is important, longitudinal structured interventions are critically needed plus resilience and adaptive coping should be cultivated. Institutions integrate mental health support as well as resilience-building programs into that medical curriculum. Thus, institutions safeguard students' academic performance in addition to better developing their long-term professional skills.

ABSTRACT ID:
EPF-SAS06

Comparing Facility Index, Examiner-Estimated Difficulty, and Cognitive Levels of Questions in Preclinical Medical Examinations

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Background:
The Facility Index(FI) is a key post-assessment metric reflecting how easy or difficult exam items are for a group of test takers. Together with other item metrics, it helps assess the quality of test items. The correlation between FI, examiner-estimated item difficulty(ID), and Bloom's Taxonomy(BT) levels is not well studied in medical education. Understanding these correlations helps refine item writing practices and ensures that assessments are appropriately challenging and aligned with learning outcomes. This study examined these relationships using data from a preclinical medical curriculum.

Methods:
A total of 910 one-best-answer(OBA) items from 24 continuous assessments(CAs) conducted across two cohorts of students at a private medical school from 2021 onward were analyzed. FI was obtained from item analysis reports, while ID and BT levels were extracted from the final versions of the exam papers.

Statistical analysis was performed using SPSS software

Results:
Most questions were rated as 'moderate' by examiners (81.2%) and only 3.5% were rated as 'difficult' despite over 70% of the items being constructed as application-level questions. Although there was a higher proportion of higher cognitive level questions during the later semesters, no corresponding increase was noted in the ID estimates. Median (IQR) FI values were similar between cohorts [67(51.6–80.0) and 68.4(51.6–79.9); p=0.13] but showed a significant drop from Sem1 to Sem2 and then a significant increase by Sem 4(p=0.009). A very weak but statistically significant negative correlation was found between FI and ID (rs= –.074, p=0.026).

Discussion:
The weak but statistically significant negative correlation between FI and examiner-estimated ID suggests that the examiners' estimate of the difficulty of questions does not consistently align with actual student performance. The higher FI in later semesters despite the higher proportion of application-type questions suggests that higher cognitive level questions do not necessarily translate into increased difficulty for students.

This unique approach of analyzing FI, ID, and BT data together is a promising educational tool for evaluating the quality of assessments and supporting constructive alignment in medical curricula. It not only reveals mismatches between examiner perceptions and student competencies but also provides several insights for curricular development and examiner capacity building, particularly in blueprinting and constructing OBA questions. The study could lead to better-aligned assessments that reflect both the intended learning outcomes and actual student performance.

Keywords:
Medical education; assessment quality; post-item analysis; educational research

Teaching And Learning

ABSTRACT ID:
EPF-TAL01

Benchmarking Learning Environments: A DREEM Analysis of Private Medical Colleges in Islamabad

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Background:
A supportive and technology-integrated learning environment is vital for medical students' academic and professional growth. This study aims to explore student satisfaction and perceptions of the educational climate in four private medical colleges in Islamabad under NUMS.

Method:
A cross-sectional study design will be used, employing the Dundee Ready Educational Environment Measure (DREEM) questionnaire to collect feedback from undergraduate students in four private colleges. The tool assesses perceptions across five domains: learning, teaching, academic self-perception, atmosphere, and social self-perception. Data was analyzed to identify trends and institutional differences.

Results:
Students generally expressed positive views regarding teaching and learning approaches, especially where technology-supported methods were integrated. However, areas such as social support and academic self-confidence were highlighted as needing improvement.

Variations in student responses suggest differing institutional practices and levels of technological adoption.

Conclusion:
Findings emphasize the importance of promoting a learner-centered, digitally enriched environment. While teaching quality is appreciated, enhancements in student support systems and academic engagement are needed. These insights can inform targeted improvements in curriculum delivery and institutional policies to promote student satisfaction and academic success.

Keywords:
Learning Environment, Student Satisfaction, Technology Integration, Medical Education

Takeaway Message:
Creating a student-centered and technology-integrated educational environment enhances medical students' learning experiences. Regular assessment through tools like DREEM helps identify gaps and guide institutional improvements to support academic success and well-being.

ABSTRACT ID:
EPO-TAL02

A moot court session for medical students learning about holistic care for survivors of gender-based violence

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Background:
Background: Globally, the prevalent rates of sexual assault were 0 to 59.2% for women, 0.3 to 55.5% for men. The challenges survivors face in navigating the healthcare system — including fatigue, shame, stigma, trauma, and secondary victimization— were rarely taught in medical schools. Lack of physician awareness may lead to ineffective patient-provider communication or even secondary victimization.

Method:
Originating from legal education, mock trial is a pedagogy of improvisation requiring students to refine speaking skills by adapting to how dynamic human interactions unfold in high-tension judicial settings. The Association Concerning Sexual Violence Against Women (ACSVAW), a non-profit organization in Hong Kong specializing in 24-hour crisis support for survivors of sexual assault, has adapted this pedagogy for teaching university students about holistic care for sexual assault survivors.

A 3-hour Workshop, held at a moot court setting, began with briefing on sexual violence. Students then divided into group, donning the role and improvising in a mock trial either as (i) the witness (sexual assault survivor) testifying, (ii) prosecuting or defence attorneys taking turns for cross-examination of witness, or (iii) members of jury. The mock trial was about a case of sexual assault wherein the survivor was hesitant to professional help-seeking afterwards. Debriefing centred around (a) neurobiological responses to trauma, (b) psychological factors that underlie survivors' non-disclosure to medical doctors or reluctance to forensic medical examination, (c) stressors during high-tension judicial settings that could inadvertently elicit trauma that impede patient recovery.

Results:
A group of medical students participated in the Workshop. Students indicated that Workshop was effective in facilitating their empathetic understanding of sexual violence survivorship and non-judgmental attitude toward survivors' potential psychological reluctance to seek professional help.

Conclusion:
The teaching experience exemplifies a novel response in medical education to the United Nations' call to address gender-based violence.

References: Wong, K. S. S., Cho, M. C. H., Yam, C. J., & Ngan, O. M. Y. (2025). From courtroom to care: Teaching holistic care for survivors of sexual assault. Medical Education. https://doi.org/10.1111/medu.15718

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ABSTRACT ID:
EPO-TAL03

Evaluating AI Chatbots for Postgraduate Pediatric Education: A Comparative Study of ChatGPT and Copilot

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Background:
In clinical practice, residents are often the first to encounter patients' symptoms, even when they lack knowledge of the precise English terminology. They are required to perform differential diagnoses under such circumstances. This study aims to evaluate the usefulness of artificial intelligence (AI)-generated responses in aiding postgraduate residents to better understand patient concerns and management strategies in pediatric outpatient settings.

Methods:
Sixty resident physicians were divided into two groups. After independently searching for answers using their preferred methods or databases such as Google, UpToDate, Group 1 used ChatGPT 4o, while Group 2 employed Copilot to address the same questions. The groups then switched tools for comparison. Effectiveness was assessed through mixed methods, incorporating learning outcomes, information retrieval performance, and one-on-one qualitative interviews to uncover deep insights. Data were analysed using Atlas.ti software and thematic analysis. AI accuracy was assessed by teachers.

Results:
Participants (29 male, mean age 25±1 years, range 23-28 years) showed a preference for ChatGPT, with 52.2% using it more than five times monthly compared to Copilot (13.3%). ChatGPT scored higher in overall satisfaction (87.8% vs. 81.7%, P=0.012), convenience (86.1% vs. 81.7%, P=0.054), and relevance to user questions (84.3% vs. 80.0%, P=0.003). Improvement were observed before and after using these tools in search skills (79.1 to 87.0 points, P=0.005) and clinical application (76.5 to 82.6 points, P=0.004). Qualitative analysis revealed that AI tools provided quick, accurate insights for common symptoms and treatments. ChatGPT offers more extensive information, provides professional responses, and delivers general guidance. Copilot also provides general guidance but with more localized content and targeted answers to specific questions.

Conclusion:
Responses generated by ChatGPT and Copilot effectively help residents gain clearer clinical insights, with ChatGPT being particularly effective. These tools support the use of bilingual prompts, enabling residents to address patient issues more efficiently—unlike the disorganized and often imprecise results from Google.

Takeaway message:
AI tools such as ChatGPT and Copilot provide quick insights into clinical questions but may lack the depth and precision required

for comprehensive patient management. Collaborative use of AI tools within healthcare teams enhances their utility. It is essential to verify the accuracy of AI-generated information before applying it in clinical practice.

ABSTRACT ID:
EPF-TAL04

Interprofessional Learning Through Joint Case Sharing: Collaborative Medical and Dietetics Care in Surgical Patients

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Background:
Optimal nutrition is essential for enhancing recovery and improving outcomes in surgical patients. Undiagnosed malnutrition contributes to increased complications and prolonged hospital stays. Addressing this gap requires effective interprofessional collaboration, particularly between medical and dietetics professionals. This interprofessional learning (IPL) initiative aimed to foster integrated clinical reasoning and mutual understanding through case-based collaboration in surgical care.

Method:
The activity was conducted as a seminar featuring three real-life inpatient surgical cases, jointly assessed by medical and dietetics students at ward prior to the seminar. During the seminar, medical students presented the clinical overviews and discussed the physiological implications of nutritional impairment, while dietetics students presented nutrition assessment findings using the Subjective Global Assessment (SGA) and proposed individualized nutrition care plans on respective cases. This joint case-sharing format highlighted the integration of medical and nutritional perspectives in surgical care and promoted collaborative practice.

Result:
A total of 99 students from both programmes participated and responded to the evaluation. Their attitudes toward IPL were evaluated using a 9-item, 5-point Likert scale questionnaire adapted from the Readiness for Interprofessional Learning Scale (RIPLS). Results showed that at least 93.9% of respondents agreed positively with IPL-related statements. Medical students reported the highest mean score (4.64 ± 0.63) in understanding the limitations of their own profession, while dietetics students scored highly (mean 4.50) in areas of communication, teamwork, and mutual respect. No significant difference in IPL attitudes was found between the two groups, indicating a shared appreciation for interprofessional collaboration.

Conclusion:
This initiative enhanced understanding of professional roles, improved interprofessional communication, and reinforced the importance of nutrition in surgical care. The bidirectional learning supported collaborative practice and highlighted IPL's value in preparing students for patient-centered, team-based care.

Takeaway Message:
This IPL initiative enabled medical and dietetics students to appreciate each other's roles and work synergistically in surgical patient care. Early recognition and management of malnutrition through interprofessional teamwork can significantly improve patient outcomes.

ABSTRACT ID:
EPO-TAL05

Peer feedback as part of collaborative learning in medical students - navigating the challenges for Malaysian students

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Background:
Peer feedback is the process of students providing constructive comments to fellow students in a formative manner to help develop and improve their skills. Peer feedback underpins the educational principle of collaborative learning accomplishing interpersonal skills and group accountability. However, there are various factors documented in the literature that affect providing peer feedback.

This study aims to explore the challenges faced by Malaysian medical students in providing peer feedback to formulate target measures in future to combat those specific challenges enhancing the benefits of peer feedback to enhance collaborative learning and achievement of the core competency of providing constructive feedback to team members. It answers the research question - Can peer feedback improve collaborative learning in medical students - navigating the challenges for Malaysian students?

Methods:
Focus group discussions (FGD) were conducted using purposive sampling for the fourth-year medical students who completed the Anaesthesia placement to explore the specific challenges for these students in terms of providing constructive peer feedback. FGD were recorded and transcribed. Data was analysed using the inductive approach of thematic analysis.

Results:
Three themes were identified from two FGD, conducted with 12 students: tailored feedback, knowledge and experience, and individual perception and cultural acceptability, towards providing and receiving peer feedback.

Conclusion:
Peer feedback encourages collaborative learning in the Malaysian context. However, the challenges of providing peer feedback such as affecting peer relationships, feeling inefficient to provide comments and being judged based on the comments are not limited to the 'country culture'. The onus lies on the facilitators to create a psychologically safe learning environment to optimize the benefits of peer feedback.

Takeaway Message:
Peer feedback has the potential to enhance collaborative learning, provided it is done in a psychologically safe learning environment.

ABSTRACT ID:
EPF-TAL06

Student Perceptions regarding Special Care Unit Experience during Year 5 Medicine Rotation in a Private Medical College in Pakistan

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Background:
The Special Care Unit (SCU) is a dedicated area for managing critically ill patients, such as those with sepsis, shock. SCU needs to be viewed as an important learning experience for medical students to be emotionally and professionally prepared for the demanding internship experience, where a wide variety of both stable and critically vulnerable patients are expected to be managed by students as interns. The COVID-19 pandemic exposed critical gaps in clinical preparedness among newly graduated

doctors, particularly in managing acutely ill patients. Recognizing this gap, our institution introduced SCU rotation for final-year medical students aimed at enhancing their practical exposure in managing critically ill patients.

Objectives:
This study aims to evaluate student perceptions of SCU rotation's effectiveness in achieving educational goals, enhancing engagement, and improving clinical readiness.

Methodology:
This descriptive cross-sectional study was conducted in the Department of Medicine, Aga Khan University Hospital, Karachi, Pakistan, from December 2022 till March 2023. Data were collected using a structured, self-designed 5-point Likert scale-based survey form, covering objectives, engagement, learning opportunities, interaction with staff, and perceived clinical application.

Results:
The majority of students (60%) strongly agreed that the rotation had well-defined objectives, provided new knowledge (69 %), and offered opportunities to apply clinical knowledge (76%). Engagement during rounds and the suitability of tasks to their level of competence were highly rated (70%) by the participants. However, only 30% of the students received timely constructive feedback and reported limited interaction (30%) with nursing staff to enhance interprofessional skills.

Conclusion:
Early interaction of undergraduate medical students with critically ill patients enhances understanding, decision-making skills, and confidence in managing complex medical conditions. Future iterations should focus on enhancing interprofessional collaboration and structured feedback mechanisms to further enrich student learning.

Takeaway Message:
Early exposure of undergraduate medical students to critically ill patients improve their clinical understanding, sharpens decision-making abilities, and builds confidence in handling complex medical situations.

ABSTRACT ID:
EPF-TAL07

Bridging Theory and Practice: Dietetics Students' Experiential Learning in Community Dietetics with Orang Asli

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Background:
Experiential learning enhances community learning in dietetics programme by allowing students to apply theoretical knowledge in real-world settings, fostering deeper understanding and cultural competence. The objective is to explore students' experiential learning with Orang Asli community during diabetes awareness event.

Method:
This qualitative study involved four final-year dietetics students (two females, two males) who participated in a diabetes awareness event at Kampung Sungai Kelubi, Rawang, Selangor organized by MMA and IMU Cares. The event included nutrition talks and dietary consultations. One-on-one semi-structured online interview were conducted two weeks post-event, lasting approximately 45 minutes each. Interviews were audio-recorded, transcribed verbatim, manually coded, and analysed thematically.

Results:
Thematic analysis revealed four key themes from students' experiential learning with the Orang Asli community. Students applied learned knowledge, including Medical Nutrition Therapy, and gained new skills such as public speaking and presenting in Bahasa Malaysia using simple terms. They adapted nutrition messages to fit local food practices. Challenges

like language barriers and limited preparatory information were addressed through supervisor guidance, peer collaboration, and interactive strategies. The experience also impacted their professional development, with students recognizing both the value and limitations of the session and suggesting earlier engagement with local leaders and wider student participation. These findings highlight the effectiveness of experiential learning in enhancing students' ability to translate theory into practice. Engaging with the Orang Asli community enabled them to improve communication, cultural sensitivity, and public health education delivery. The experience deepened their understanding of diverse populations, fostering growth in practical and professional competencies essential for future dietetic practice.

Conclusion:
Experiential learning in community dietetics settings fosters meaningful skill development, cultural awareness, and professional growth among dietetics students. Future programs should involve more students and introduce such experiences earlier in the curriculum to strengthen long-term impact and foster more culturally competent healthcare professionals.

Takeaway Message:
Experiential learning in community dietetics, such as with the Orang Asli, effectively bridges theory and practice by enhancing dietetics students' communication, cultural competence, and professional skills. Early exposure and more student involvement can further strengthen their preparedness for real-world nutrition challenges in different community.

ABSTRACT ID:
EPO-TAL08

Innovative Teaching Strategies to Support Generation Z's Learning Preferences in Health Professions Education: A Systematic Review

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Background:
Generation Z students, raised in a digital and hyperconnected world, bring distinct learning preferences to health professions education (HPE). Their affinity for technology, interactive content, personalized learning, and immediate feedback challenges traditional pedagogical models.

Objective:
To systematically review innovative teaching strategies that align with Generation Z's learning preferences in the context of health professions education.

Methods:
A systematic search was conducted in PubMed, ERIC, Scopus, and Web of Science using predefined keywords and Boolean operators. Studies published from 2012 onward, focusing on pedagogical interventions tailored for Generation Z in medical, dental, nursing, or allied health education were included. Both qualitative and quantitative studies were considered. Data extraction and synthesis were carried out in accordance with the PRISMA 2020 guidelines, and the methodological quality of the included studies was assessed using appropriate critical appraisal tools.

Outcomes:
The review identified a range of student-centered, evidence-based strategies aligned with Gen Z's learning needs. These included flipped classrooms, gamification, simulation-based learning, and adaptive e-learning environments that promote personalized, self-paced learning. Case-based learning

enhances clinical reasoning, while social media and digital platforms foster peer interaction and professional identity development. Real-time, technology-driven feedback improve motivation and skill acquisition. Interprofessional learning, peer coaching, and collaborative frameworks support communication and reflective practice. Challenges such as digital literacy gaps and infrastructure disparities were also highlighted.

Conclusion:
This review provides a structured synthesis of current pedagogical innovations in HPE, contributing to more responsive, engaging, and future-ready curricula for the new generation of health professionals.

ABSTRACT ID:
EPO-TAL09

Natural Medicines in Improving Health Profession Education

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Background:
This study aims to highlight the significance of natural medicines in health profession education. Natural medicine, which surrounds alternative and complementary therapies that can go along with conventional medicines, provides better management of chronic diseases, promoting healing and general health. Natural medicines emphasize the importance of the interconnection of the body, mind, and spirit, and are more involved in a holistic approach, improving the overall well-being instead of just treating symptoms. It can widen the students' comprehension of multiple approaches to health, leading to improvement in patient care.

Method:
This research work is a retrospective study based on the review of previous articles published internationally and on national level to make the information more relevant to apply in clinical practice. Different search engines were utilized including Google Scholar, PubMed, ScienceDirect and Google to search the relevant information.

Results:
According to an estimate more than 80% of the worlds' population of underdeveloped countries are using herbal medicine as a part of elementary healthcare. It is also observed that utilization of traditional, complementary and alternative medicine (TCAM) has been increasing day by day in developed countries as well. A study conducted by Quartey et al, 2012 revealed that TCAM education for western doctors resulting in better attitude, skill and knowledge of physician and medical students. It is a common practice that natural medicines are used to manage the chronic conditions like diabetes, hypertension, arthritis and various other diseases as an alternative or in combination with conventional medicine.

Conclusion:
Nowadays, patients prefer natural medicines due to the reduce side effect when compared to the conventional medicines. In short, natural medicines which offer alternative and complementary methods to healthcare plays a significant role in managing chronic diseases and promoting overall wellbeing of a person.

Keywords:
Natural Medicines, Holistic approach, Health Profession Education, TCAM

Takeaway Message:
Natural medicines have a great potential for managing and curing disease, but always use them according to the advice of a healthcare professional to obtain the maximum benefits from them. When taken with conventional drugs, a person should be careful as the severe drug interactions may be possible. So, the correct use of any natural therapy with lifestyle changes will be more helpful to improve the overall health and wellbeing of a person.

ABSTRACT ID:
EPO-TAL10

Do Iterative AI Prompts Improve Clinical Case-Based Learning? A Student's Perspective and Analysis in Medical Education

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Medical students attain foundational knowledge about disease processes but often lack clinical reasoning skills. We as students are challenged by complex clinical cases and struggle to generate appropriate differential diagnoses/final diagnoses with robust rationale. Artificial Intelligence (AI) is transforming medicine by utilizing machine learning to analyse medical records to arrive at accurate diagnoses. The student author, with the assistance of the faculty author, aimed to evaluate the role of AI in generating and analysing complex clinical cases. We hope that this approach will empower students to utilize AI as a tool to enhance our clinical reasoning skills.

Student author leveraged structured AI prompts (ChatGPT) to generate complex clinical scenarios. Advanced systematic recursive refinement allowed for formulation of complex realistic clinical case simulations. Faculty oversight ensured accuracy in data analysis, development of appropriate five top tier differential diagnoses, rationales for each entity, final diagnoses, and final summary. Examples of recursive prompts that were used effectively: "provide: a) top five differential diagnoses, b) detailed rationales, c) final diagnosis, d) summary".

Student author utilized various AI prompts and formulated 25 distinct clinical stems, simulating realistic patient scenarios encountered in medical education. An iterative approach successfully allowed for feedback to refine the process, culminating in complex cases with comprehensive clinical vignettes, laboratory, and imaging data. Additional recursive AI prompts generated an accurate step-by-step diagnostic clinical reasoning culminating in a clinically appropriate final diagnosis. Quality of the output relied on the specificity of prompts, emphasizing the need for expert faculty author input.

AI has underutilized significant potential in formulating realistic clinical case simulations and enhancing diagnostic skills in medical education. Our study highlights the potential of combining faculty expertise with AI, as a super collaborator, to produce high-quality scalable educational resources and address gaps in clinical reasoning skills. We offer a structured recursive approach.

Takeaway Message:
Utilizing fine-tuned AI algorithms, in collaboration with expert educators, can transform conventional case-based learning and revolutionize medical education.

ABSTRACT ID:
EPF-TAL11

Effectiveness of Role-Play in enhancing affective learning among undergraduate optometry students

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Background:
Affective learning focuses on the development of emotions and values, which are essential for shaping ethical and professional behaviour in healthcare professionals. This study investigates the effectiveness of role-play as a simulation-based method to enhance affective learning among optometry students.

Methods:
Undergraduate (UG) optometry students (UG-III: n = 44; UG-IV: n = 39) participated in a 4-hour workshop that integrated instructional sessions with structured role-plays. The workshop content focused on the five levels of the affective domain, as well as verbal and non-verbal communication and empathy. Role-play scenarios were conducted as group activities, illustrating themes such as managing an anxious patient, overcoming language barriers, and recognizing the importance of patient concerns. A Situational Judgment Test (SJT) comprising multiple-choice questions assessed students' responses at the levels of receiving, responding, and valuing, based on Bloom's affective domain. In addition, participants completed a self-reflection questionnaire to capture their learning from the role-play experience.

Results:
A comparison of pre- and post-SJT scores showed a significant improvement in both student cohorts (Paired t-test: UG-III, $p < 0.000$; UG-IV, $p < 0.000$). The median score increased from 3.9 to 5.3 (out of 6) for UG-III, and from 4.8 to 5.6 for UG-IV. Over 90% of students either agreed or strongly agreed with the positive statements in the self-reflection questionnaire. No statistically significant difference was observed between the two cohorts in their self-reflection responses (Mann–Whitney U test, $p > 0.05$).

Conclusion:
The role-play intervention significantly improved students' ability to recognize and appropriately respond to emotionally sensitive clinical scenarios. These findings underscore the potential of role-play as an effective strategy for fostering empathy-related competencies in optometry education.

Takeaway Message:
Clinical scenario-based role-plays can be seamlessly integrated into student learning to promote affective learning and strengthen their approach to patient care

ABSTRACT ID:
EPF-TAL12

Assessing the Effectiveness of Moulage-Based Simulation to Learn Injury Interpretation, For Medicolegal Report Writing in Undergraduate Medical Students

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Background:
Forensic medicine training is essential for medical students, but in Pakistan, legal and logistical barriers often limit hands-on exposure to medicolegal cases, affecting skill development in injury interpretation and report writing. Low-cost innovation, moulage-based simulation provides practical learning opportunities. Study evaluated effectiveness of moulage-based simulation versus visual learning models in teaching injury interpretation to undergraduate medical students

Methods:
In this experimental study, 6 groups of 104 third-year MBBS students were divided through stratified random sampling into study and control group (n=52 each). Injury interpretation was taught on 5 blunt and sharp force injuries, the study group receiving moulage-created injury training, and control group receiving training on low fidelity visual plastic models. Both groups completed medicolegal case (MLC) forms, scored using rubric based on the 2020 Minnesota Protocol (Post-Test I). A crossover of training methods was done subsequently on another set of 5 injuries, followed by MLC assessment (Post-Test II). Mann-Whitney U test applied, to compare Post-Test scores between groups, and Wilcoxon Signed Rank test, to assess within-group differences between the scores. P value of <0.05 considered significant

Results:
The study group showed significant improvement in Post-Test-I scores compared to control group p = 0.016, mean difference = 5.95). Both groups improved significantly in Post-Test II (p < 0.001), but no between-group difference observed. Notably control group showed greater gains after switching to moulage-based simulation, with larger effect size (0.764) than study group (0.652)

Conclusion:
Study demonstrates the effectiveness of moulage-based simulation for teaching injury interpretation in medicolegal education, suggesting it as a valuable tool in forensic medicine training. Moulage enhances realism, prompting psychomotor skill development on lifelike injuries with better application of theoretical knowledge to practice. Its cost-effectiveness and ability to simulate complex pathologies make moulage a viable resource for medicolegal training

Takeaway Message:
Integrating Moulage is not magic, fantasy, or mock. However, it is a fantastic vehicle for representing and simulating a real event promoting realism, and motivating students' engagement and ultimately improve their skills.

ABSTRACT ID:
EPO-TAL13

Balancing Innovation in Teaching: Exploring Medical Students' Perceptions of Active Learning Strategies through Mixed Method Study

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Background:
Innovative teaching strategies such as Problem-Based Learning (PBL), Team-Based Learning (TBL), flipped classrooms, and gamification are increasingly implemented in medical education to enhance engagement and critical thinking. However, questions remain about their feasibility, frequency, and integration with traditional methods. This study aimed to evaluate medical students' perceptions of these strategies, their impact on engagement and learning, and the challenges of balancing innovation with conventional teaching.

Background:
To assess the effects of innovative teaching modalities on medical students' engagement and learning.
To explore students' perceptions of active learning strategies.

Methods:
A sequential explanatory mixed-methods design was used. Phase 1 involved quantitative data collection from 150 purposively sampled medical students through structured Google Forms feedback on experiences with PBL, TBL, flipped classrooms, and gamification. Phase 2 included four Focused Group Discussions (FGDs) with 8 students each, selected from survey respondents, to gain deeper insights. Data collection employed semi-structured guides, and thematic analysis was conducted using Braun and Clarke's framework. Credibility was ensured through member checking and peer debriefing.

Results:
Thematic analysis identified eight themes: (1) Enhanced student engagement, with 78% reporting increased motivation; (2) Improved knowledge retention and clinical relevance; (3) Development of teamwork and communication skills; (4) Challenges in implementation, such as inconsistent facilitation; (5) Time constraints and academic load, with 62% feeling overwhelmed; (6) Need for faculty training; (7) Competitive stress and cognitive overload during gamification; and (8) Preference for a balanced approach integrating active learning with traditional lectures. These findings highlight the necessity of a structured hybrid model that leverages the benefits of

active strategies while addressing barriers to optimize student engagement and learning outcomes.

ABSTRACT ID:
EPF-TAL14

An Innovative Peer-Assisted Learning Model for Medical English Based on Narrative Medicine: An Empirical Study in China

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Background:
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 8 for three months. The control group used a conventional teacher-centered 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.

Takeaway Message:
Innovative Integration of Narrative Medicine and Peer-Assisted Learning: This study innovatively combines narrative medicine with peer-assisted learning, offering new teaching approaches and practical paths for medical English education.

Enhancing Student Proactivity in Medical English Learning: This approach breaks traditional one-way teaching models, significantly boosting medical students' learning proactivity, with most participants showing sustained interest in medical English.

Fostering Teamwork and Practical Application Skills: Through group collaboration and senior student guidance, this model effectively

promotes student interaction, cultivates teamwork, and enhances practical application skills.

ABSTRACT ID:
EPF-TAL15

Teaching What Matters: Evaluating the Clinical Utility of Core Medicine Sessions (CMS) in Final-Year MBBS

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Background:
Clinically oriented core lectures are pivotal in final year of medical school, serving as a bridge between classroom-based instruction and clinical application. These sessions are designed to consolidate knowledge, foster diagnostic reasoning, and enhance students' preparedness for diverse clinical exposures. This study evaluates how well these sessions address four critical dimensions: clarity of learning objectives, organization of time and content, educational merit, and clinical applicability.

Methods:
A retrospective cross-sectional study was conducted at Department of Medicine from January 2021 to December 2024.A 4-point Likert Scale (1 = Poor to 4 = Excellent) student evaluation form was used to collect data after each core session. The evaluation form covered key areas like clarity of learning objectives, organization of time and content, educational merit and clinical application of knowledge. Descriptive statistics included Mean and SD for each domain.

Results:
A total of 2,528 evaluations were analysed. Overall, 75% of responses fell in the "Good" to "Excellent" range. Clinical application received the highest mean score (Mean = 3.40, SD = 0.69), indicating strong perceived relevance to real-world clinical scenarios. Educational merit followed closely (Mean = 3.40, SD = 0.71), indicating that students would recommend the sessions to their peers. Clarity of learning objectives also scored well (Mean = 3.39, SD = 0.70), reflecting efficacy of the sessions. Organization of time and content had the relatively lowest score (Mean = 3.39, SD = 0.69), suggesting opportunities for improvement in the pacing and structuring of learning content. The lower scores in content organization highlight need for faculty development in instructional design and time management.

Conclusion:
Core medicine lectures remain a valued component of final-year undergraduate medical education. This evaluation highlights the importance of aligning lecture delivery with learners' clinical needs and emphasizes the potential for faculty development initiatives and ongoing improvement in content structuring.

Takeaway Message:
Clinically relevant core medicine lectures with clear objectives significantly enhance final-year medical students' learning experience. Prioritizing alignment with learners' needs and optimizing content organization are key to maximizing educational impact and guiding future faculty development.

ABSTRACT ID:
EPF-TAL16

Exploring Knowledge, Attitudes, Practices, and Barriers to Medical Research: A Cross-Sectional Survey of Postgraduate Medical Trainees in LMIC

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Background:
Research competency is a key expectation of postgraduate medical training. It enhances clinical decision-making and supports evidence-based practice. However, research engagement among postgraduate trainees in low- and middle-income countries remains suboptimal due to various contextual and institutional challenges.

Objective:
This study aimed to evaluate the knowledge, attitudes, research practices, and perceived barriers to research among postgraduate medical trainees in Pakistan to inform improvements in research training within residency programs.

Methods:
A cross-sectional survey was conducted at a tertiary academic hospital in Pakistan, enrolling postgraduate medical trainees across multiple specialties at a university hospital. A structured questionnaire was used to collect data to assess prior research training, involvement in research activities, attitudes toward research, and barriers encountered.

Results:
A total of 215 postgraduate trainees met the inclusion criteria and were included in the study. The mean age was 28.1 years, with female predominance (63%). While 85.6% of participants agreed that research is a critical part of their training, only 26.5% had received formal research training, and 40.5% had any prior publication. Active involvement in research was reported by 76.6% of trainees, primarily as co-investigators. Major barriers included lack of time due to clinical workload (86%), inadequate departmental support for research (84.7%), lack of mentorship (62.2%), and insufficient prior training (64.2%). Trainees with prior research training or over five years of postgraduate experience showed significantly higher levels of research productivity ($p<0.05$). However, the provision of protected research time did not correlate with increased output.

Conclusion:
Despite recognising the importance of research, postgraduate medical trainees face substantial barriers that limit their active engagement. Addressing these barriers through structured research training, mentorship opportunities, and integration of research into clinical workflows is essential for fostering a research-oriented culture in medical education

Takeaway Message:
Although postgraduate medical trainees acknowledge the importance of research, multiple barriers hinder their active participation. Enhancing research engagement requires structured training programs, accessible mentorship, and the integration of research activities into routine clinical practice.

ABSTRACT ID:
EPO-TAL17

Operationalization of SDL among Undergraduate Medical & Dental Students

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Background:
Lifelong learning is essential for medical students to stay updated, grow professionally, and provide quality healthcare. Self-directed

learning (SDL) fosters this by promoting deep, independent learning through active student engagement, self-assessment, and metacognition. This qualitative study explored the learning processes during SDL sessions among undergraduate medical and dental students in Islamabad. It aimed to understand how students develop SDL habits and highlighted the importance of SDL in shaping lifelong learners.

Methodology:
The design for the research is a basic qualitative approach. Data was collected using face-to-face semi-structured focus groups. A purposeful sampling technique was used in recruiting four focus groups. For the thematic analysis of the data, Braun & Clarke's steps have been used.

Results:
Five themes were identified: Concept of SDL; Learning Strategies; Scaffolds; Parameters in SDL; and Implications of SDL. Peer-assisted learning was prominent, with students explaining and questioning each other to deepen understanding. A future quantitative study could assess if these strategies correlate with higher SDL scores.

Conclusion:
The study revealed diverse approaches students use for SDL, especially collaborative learning. The study concluded that teachers may empower students to become self-sufficient and lifelong learners by providing them with fundamental SDL skills and creating a learning environment that nurtures motivation. A future quantitative analysis is recommended to evaluate the impact of these strategies on SDL effectiveness.

Takeaway Message:
SDL empowers students to plan, execute, and evaluate their learning. Key strategies include peer-assisted learning, critical thinking, goal setting, concept mapping, and self-assessment. Furthermore, during SDL availability of a facilitator and a dedicated SDL venue can help effective learning during SDL.

Keywords:
SDL, Lifelong learner, Medical & Dental Students, Facilitator

ABSTRACT ID:
EPF-TAL20

Evaluation of Three-Dimensional Printed Models Compared to Plastic Models in Enhancing Anatomy Performance Among Health Science Students

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Background:
Anatomy is an essential element of undergraduate medical education, necessitating efficient practical learning resources. The increasing student population has become challenging to supply sufficient traditional plastic models for practical sessions. 3D printing provides an economical solution, converting digital models into tangible anatomical structures with materials such as nylon or gypsum. These models facilitate intricate visualization of complex anatomy, yet their assessment is often subjective. This study aims to objectively evaluate and compare the effectiveness of 3D printed anatomical models with traditional plastic models in enhancing students' performance in anatomy.

Method: Background:
Quasi-experimental one-group pre-test/post-test design was employed in Cardiovascular system practical session of Semester 2 students in Biomedical Science program. Two consecutive practical sessions were scheduled: one was conducted using traditional plastic models, and the other using 3D printed models. Structured OSPE-based pre-test and post-test were held before and 1 week after the sessions.

Results:
The results of the anatomical knowledge test showed that students in the 3D group were not inferior to those in the plastic model group. The mean difference between post-test and pre-test scores was higher in the group using 3D printed model [1.92±0.29 (SE)] than the plastic model [1.59 ± 0.25 (SE)]. Post-test score for 3D printed model group was 9.92 ± 0.05 (SE) while for the plastic model group was 9.9± 0.06 (SE). However, the increase in the score was not statistically significant.

Conclusion:
The preliminary findings indicate that using cost-effective 3D-printed anatomical models during the practical session enhances students' performance. To substantiate the efficiency of 3D printed models, future studies with a broader range of models and a larger and more diverse student population are needed.

Takeaway Message:
3D printed models can be a sustainable alternative to plastic models.

ABSTRACT ID:
EPF-TAL21

A Reflective Experience: Supporting Student Use of Motivational Interviewing in Outpatient Clinical Dietetic Practice

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Background:
To reflect on the role of a clinical instructor in guiding dietetic students in the use of Motivational Interviewing (MI) during student-led dietitian consultation sessions with a patient who demonstrated limited change following nutrition education intervention alone in outpatient diet clinic.

Methodology:
This case study is based on instructor's observation and involvement during two separate outpatient dietitian consultation sessions, each conducted by a different final-year dietetic student. WR, a 44-year-old female with type 2 diabetes, hypertension, and obesity (BMI of 39.8 kg/m^2), was initially seen by a student. The primary intervention focused on comprehensive dietary education. The second session occurred two months later, with a different student managing the follow-up. Based on the follow-up assessment, the instructor recognized the need to shift counselling style and actively encouraged the student to use MI skills and principles to enhance engagement. This approach reflects a guided experiential learning incorporating clinical supervision, reflective practice and real-time feedback supported the student's skill development.

Results and Discussion:
Initial education provided did not lead to noticeable dietary behaviour change. Her typical dietary intake was 1744kcal with 39% of carbohydrates, 18% of protein and 54% of fat and remain the same during follow-up. The patient showed a modest weight loss (2.3%) due to fasting and sports competition participation rather than consistent and intentional lifestyle adjustments. At follow-up, the patient reported lower motivation and persisting challenges related to appetite and hunger.

Guided by feedback, the second student applied MI skills including open-ended questions, affirmations, and reflective listening. These helped the student explore the patient's ambivalence and create a more patient-centred conversation. An improvement in rapport, adaptability, and communication skills, as well as increased patient openness was observed.

Conclusion:
The case study emphasizes the importance of timely instructor intervention in clinical education. Implementing a guided experiential learning and supervision enabled instructor to support students in their counselling skills. It can enhance student's confidence,

communication skills, and preparing students for real-world clinical challenges.

Takeaway Message:
Clinical instructors play an important role in enhancing student learning by providing timely and guided supervision that supports the development of practical counselling skills like Motivational Interviewing, which ultimately preparing students for real-world clinical challenges through reflective, patient-centred practice.

ABSTRACT ID:
EPF-TAL22

A Critical Evaluation of Two Teaching Approaches in Delivering Device-Based Skills to Semester 2 Medical Students

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Background:
Correct technique in using peak flow meters (PFM) and metered dose inhalers (MDI) is crucial in asthma management. Improper usage contributes significantly to poor control. This study aimed to evaluate how different plenary delivery styles—traditional versus multimodal—affect medical students' engagement and perceived learning outcomes during short-format clinical teaching sessions.

Method:
A total of 103 Semester 2 medical students participated in three teaching sessions conducted over two days. Each session included two 15-minute mini-plenaries: PFM was delivered using a traditional slide-based approach, while MDI was taught through a multimodal format incorporating images, video, and live demonstrations. Feedback was collected anonymously using Likert-scale (1–5) questionnaires and open-ended comments. Self-assessment was guided by Gibbs' reflective cycle (1988).

Results:
All 103 students provided feedback. The multimodal MDI session scored higher across most domains. The average score for "Interesting" was 4.26 for MDI versus 3.94 for PFM ($p < 0.001$). "Usefulness" was rated 4.28 for MDI and 4.14 for PFM ($p < 0.01$). "Expectation Met" scored 4.21 for MDI versus 4.08 for PFM ($p < 0.01$), and "Enthusiasm" was 4.07 for MDI versus 3.98 for PFM ($p < 0.05$). No significant differences were found in clarity or understanding. Overall, the MDI session using a multimodal approach resulted in significantly higher student satisfaction. Reflection revealed strengths in facilitation style and session structure but identified limited participation from quieter students. Suggestions included adding group activities to increase inclusivity and interactivity.

Conclusion:
Multimodal teaching methods, even in brief plenary formats, significantly enhance medical student engagement and satisfaction. Incorporating diverse teaching tools—visuals, demonstrations, and interactive elements—can improve the effectiveness of clinical skills teaching and should be considered when designing short-format medical education sessions. Structured group activities and varied sensory stimuli can further support inclusivity and deeper learning

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ABSTRACT ID:
EPF-TAL23

Integrating Comprehensive Assessment Strategies to Promote Active Learning Among Undergraduate Students in Professionalism and Ethics

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The development of students' understanding and competencies in professionalism and

ethics is fundamental in psychology education. There is a growing need to move beyond traditional assessment methods and adopt more comprehensive strategies that actively engage students in the learning process as the field evolves to meet the demands of contemporary psychological practice. This presentation emphasizes the integration of comprehensive assessment strategies aligned with Bloom's Taxonomy to foster active learning among undergraduate psychology students, with a particular focus on enhancing their understanding and application of professionalism and ethics. The primary objectives were to increase student engagement and participation, enhance ethical reasoning and cultural empathy, and improve students' familiarity with global ethical standards, especially those specified by the American Psychological Association (APA), which are crucial. Students were involved in cognitive, affective, and psychomotor domains by using a multimodal assessment framework that incorporated article reviews, case studies, or real-life presentations, digital quizzes, and interactive tutorials such as role play, case-based scenarios, group discussion, and presentation. Findings indicated a marked decrease in passive learning behaviours and a significant improvement in students' ability to critically analyse ethical dilemmas within diverse cultural contexts. The results underscore the value of assessment strategies that are experiential, interactive, and globally oriented, supporting the development of ethically understanding, competent, and culturally sensitive psychology graduates. The integration of global ethical standards through active learning strategies based on a student-centered focus enhances professionalism and intercultural intelligence among psychology undergraduates. The approach can be adapted to different educational environments and achieve sustainable educational objectives with the help of digital tools and culturally relevant content. It provides students with the tools to be global health professionals who are ethically grounded and socially responsible.

Takeaway Message:
The integration of global ethical standards through active learning strategies based on a student-centered focus enhances professionalism and intercultural intelligence among psychology undergraduates. The approach can be adapted to different educational environments and achieve sustainable educational objectives with the help of digital tools and culturally relevant content. It provides students with the tools to be global health professionals who are ethically grounded and socially responsible.

ABSTRACT ID:
EPF-TAL24

Learning in and from the Community: Preparing Medical Students for Work-Readiness

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Community-based learning is an essential component of modern medical education. By engaging students directly with communities, particularly in primary care and underserved settings, they develop practical, professional, and social competencies critical for effective, work-ready healthcare practice. Students can bridge theory with real-world clinical practice, foster culturally competent and patient-centered care, enhance interprofessional collaboration and communication and develop leadership, advocacy, and service-learning skills.

Methods:
In Kampung Sebir community engagement project, students and faculty and sometimes with collaboration from NGOs and other programs in IMU engage in service -learning project activities to improve the health literacy of the community. These activities are student-led projects on health education, screening, or prevention campaigns in the community. There is an emphasis on continuity of care,

empowering the community and understanding social determinants of health. Volunteer students who participate are required to write a short reflection on what they learnt.

Students gain competencies on clinical reasoning, adaptability, cultural humility, teamwork and communication. They can learn systems thinking and appreciate the role of public health systems, resources, and health policy. They can develop their professional identity by experiencing the physician's role as a community leader and advocate. They gain understanding of collaboration with other health professionals through interprofessional learning when working with their counterparts during community service.

Conclusion:
Medical students who have experience serving in the community hopefully will show greater empathy, communication skills, teamwork skills and adaptability to community needs.

Take home message:
Volunteering in community engagement activities will equip students to work in diverse environments and develop foundations in public health, prevention and health equity.

Governance and Leadership

ABSTRACT ID:
EPO-GAL01

The conundrum of globalization in Medical Education: enactment in low- and middle-income countries

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Background:
More than two-thirds of undergraduate medical institutes are situated in low- and middle-income countries (LMICs), and many migrate to Global North countries. [1] However, the medical education systems in LMICs aim to prepare physicians to improve the healthcare of people in their regions. The role of the WFME has arguably changed with a closer connection with the Educational Commission for Foreign Medical Graduates, the authorized credential evaluation and testing agency for non-U.S. medical graduates who seek to apply for a U.S. medical residency program. This close association has made the WFME a meta-regulator alongside its other activities. In the LMICs, medical institutes look upon WFME for guidance in developing the medical education system. However, no studies to date have examined how the educational leaders in LMICs view WFME and its roles. Therefore, this study aimed to explore how medical educators and members of accreditation bodies perceive the roles.

Method:
A qualitative approach with in-depth interviews was employed. Purposive sampling of participants from four LMICs resulted in ten semi-structured interviews.

Results:
A total of ten senior medical educationalists were interviewed. The following themes were identified: Role of WFME, Role of WFME standards, Link between standards and recognition, Link between ECFMG and recognition, Emigration, Contextualization, Commercialization, Recognition process & responsiveness, Pursuit of reputational merits, Fear of marginalization, Political pressures.

Conclusion:
Interviews revealed that there is a great deal of conceptual uncertainty about the role of the WFME. Given the widely held belief demonstrated here that gaining recognition is a time-consuming and costly process, it may be suggested that seeking recognition is a multi-factorial decision not primarily driven by a perception of its ability to drive up standards.

Takeaway Message:
Seeking recognition is a complex decision influenced by multiple factors, rather than just its potential to enhance standards. Given the common belief that recognition is time-consuming and costly, this area warrants further exploration.

IMU-RHIME ABSTRACTS

Student Assessment

ABSTRACT ID:
RHIME-001

Precision Medicine in Education: Using Clustering Analysis for Personalized Student Support in Medical Training

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Background:
Burnout, stress, and psychological distress are prevalent among medical students, negatively affecting their academic performance and well-being. Traditional blanket interventions have shown limited effectiveness, emphasizing the need for personalized approaches. This study applies unsupervised learning to classify medical students into distinct clusters and examines their academic and psychological characteristics to support targeted interventions.

Rationale of Innovation:
Medical students have varying responses to academic stressors, yet most institutions implement blanket interventions. By utilizing clustering analysis, this study introduces a data-driven approach to classify students into meaningful psychological profiles. This study innovatively uses clustering to personalize student support, aligning interventions with their psychological and academic needs. This approach represents a shift toward precision student support in education.

Methods:
A cross-sectional study was conducted among 677 medical students, assessing psychological distress (DASS-21), burnout (SBI), resilience (ARS-24), coping strategies (Brief-COPE), and learning environment perception (DREEM-12). Spectral clustering was employed to classify students into four psychologically distinct groups, validated through resampling. ANCOVA was used to compare academic performance (GPA) and psychological factors across clusters, adjusting for covariates. Qualitative validation was performed through focus group discussions.

Results of Evaluation:
Clustering analysis identified four distinct student profiles. Cluster C was the most at-risk group, showing high distress, low resilience, and poor academic performance. Cluster A experienced high stress and burnout but maintained moderate academic performance due to strong resilience and adaptive coping. Cluster B thrived with high resilience, strong coping skills, and low burnout, indicating ideal peer mentors. At the same time, Cluster D excelled academically with low stress but had moderate resilience and lower help-seeking behaviour. ANCOVA confirmed significant differences across clusters ($p < 0.001$). Focus group discussions validated these findings, revealing that Cluster C needed academic and psychological support, Cluster A required psychological counselling, and Cluster B students enjoyed studying medicine and thrived in their environment. In contrast, Cluster D students, though less stressed, expected more competence and engagement from faculty. These insights highlight the need for targeted, cluster-specific interventions.

Potential Educational Impact:
This study provides a framework for educational institutions to move beyond generic initiatives toward personalized student support strategies. At-risk students can receive targeted psychological and academic interventions while thriving students can be engaged in peer mentoring programs. Such an approach may improve academic outcomes, resilience, and overall well-being, fostering a more sustainable healthcare workforce.

Feasibility of Innovation:
This clustering-based approach is cost-

effective, utilizing survey data commonly collected in academic institutions. Implementing interventions based on cluster characteristics does not require additional resources but rather restructuring existing programs to focus on those who need them most. Moreover, students find such personalized strategies more acceptable than blanket interventions, enhancing engagement and program adherence.

Conclusion:
Data-driven clustering offers a scalable and impactful approach to student mental health support. By identifying distinct psychological profiles, institutions can implement targeted interventions that enhance well-being, academic success, and resilience. This targeted approach represents a promising shift toward individualized student care, ensuring medical trainees are adequately supported throughout their education and professional development.

Take Home Message:
Medical students showed diverse psychological and academic profiles, making blanket interventions ineffective. At-risk students require targeted support to prevent academic and mental health deterioration. Cluster C students experience high psychological distress and low resilience and need both academic and psychological support to help them cope with medical education. Cluster A students, despite facing high stress, actively utilize coping strategies and, therefore, require psychological counseling to sustain their resilience and prevent long-term exhaustion. On the other hand, thriving students can be valuable resources for peer mentorship. Cluster B students demonstrate high resilience, strong coping skills, and low burnout. They are also well-suited to guide and mentor struggling peers, contributing to a supportive academic environment. Academic excellence does not always equate to engagement or well-being. While Cluster D students excel academically and experience low stress, they demand greater engagement and competence from faculty. Addressing their concerns requires improving teaching quality and faculty-student interactions to create a more responsive learning environment. Overall, a data-driven approach enhances student well-being and academic success. Clustering analysis offers a powerful tool for identifying student risk profiles early, allowing institutions to optimize resources and design precision education strategies. By implementing tailored interventions, medical schools can improve resilience, academic performance, and mental health, ultimately supporting the sustainability of the healthcare workforce.

ABSTRACT ID:
RHIME-002

Revisiting Flow Theory Through Immersive Metaphoric Role-Play: A Low-Cost, High-Impact Innovation in Health Professions Education

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Background:
In the era of globalised health professions education, a major challenge is ensuring equitable, inclusive, and sustainable learner engagement with complex foundational sciences. Traditional didactic methods often lack cultural relevance and emotional depth. As global systems adopt holistic, learner-centred models, strategies that integrate cognitive, emotional, and social dimensions have become essential. Metaphoric Role-Play (MRP) is one such innovation, encouraging learners to co-create metaphorical narratives to understand complex physiological mechanisms. It aligns with the global push for emotionally intelligent, adaptable, and inclusive teaching practices.

Rationale of Innovation:
MRP meets the growing need for low-cost, high-impact pedagogies that foster deeper learning and adaptability across diverse

settings. Grounded in Flow Theory, which asserts that learning thrives when a learner's capacity to act matches the complexity of the task (opportunity to act), MRP helps learners access immersive, balanced, and meaningful educational experiences. The study explored how MRP enriches the understanding of flow state in emotionally engaging, globally relevant medical education, while building 21st-century skills like collaboration, empathy, and reflective practice.

Method:
This constructivist qualitative study employed the Informed Grounded Theory (IGT) approach. Undergraduate medical students and faculty from cultural and institutional context participated in MRP sessions centred on challenging physiological concepts. Facilitator and students co-developed and enacted metaphor-based scenarios, followed by structured reflective writing by stakeholder-participants (performing/observing students and observing faculty). The anonymised reflections were inductively coded and analysed using constant comparison with relevant educational theories and researcher's reflection being an insider researcher. The objective was to elaborate Flow Theory in the context of immersive, metaphor-rich learning.

Results of Evaluation:
Triple-analysis yielded the M.E.T.A.F.E.R.S model—an expanded version of Csikszentmihalyi's Flow Theory, highlighting eight interconnected constructs: Metacognition, Educational Engagement, Transformative Learning, Adaptive Self-Awareness, Flow, Emotional Learning, Reflection, and Social Learning. This model illustrates how MRP supports both the opportunity to act (through narrative immersion, emotional connection, and cultural relevance) and capacity to act (via collaboration, reflection, and emotional regulation) in a safe-learning environment. It acknowledges the interplay of emotional, cognitive, and social processes in sustainable learning environments.

Potential Educational Impact:
MRP promotes transformative and inclusive learning, enhancing students' emotional intelligence, critical thinking, and communication—competencies valued by global accreditation frameworks. It fosters empathy, cultural sensitivity, and adaptability, supporting the sustainability and equity goals of global health professions education. Flow state enhances learner motivation and engagement across varied contexts.

Feasibility of Innovation:
MRP is cost-effective, requiring minimal infrastructure and faculty investment. It can be integrated into resource-constrained environments through recorded sessions and reflection-based analysis. Faculty training in narrative facilitation and feedback can be embedded within existing professional development programmes. The model's adaptability allows scaling across disciplines, institutions and cultures.

Conclusion:
As globalisation redefines health professions education, MRP offers a culturally responsive, emotionally resonant, and pedagogically robust innovation. Through the M.E.T.A.F.E.R.S model, it repositions Flow Theory as a holistic framework for immersive learning, fostering learners who are knowledgeable, empathetic, reflective, and globally competent.

Take Home Message:
Immersive engagement opportunities in a happy-classroom build learner's capacity and when we learn, we see the opportunities.

ABSTRACT ID:
RHIME-003

Implementation of a Globalized AI-Supported Laparoscopic Training Course for Surgical and Allied Residents: A Longitudinal Study Evaluating Skill Transfer

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Background:
Laparoscopic training presents significant challenges in surgical education, particularly in low-resource settings where structured curricula and advanced simulation technologies are often lacking. This study aimed to address these challenges by evaluating the effectiveness of a globally developed laparoscopic course utilizing artificial intelligence (AI)-based simulators. The primary research question was: How effective is a globally developed, AI-enhanced laparoscopic training course in improving residents' surgical skills with demonstrated transfer to real-life OR performance?

Rationale of Innovation:
The innovation was driven by the need for a standardized, high-quality laparoscopic training program that bridges local capacity gaps while incorporating global expertise. Developed through collaboration between Pakistani and international surgeons and medical educationists, the course used AI-powered simulation technology with virtual case scenarios, haptic feedback, and automated performance tracking. Its originality lies in combining global educational design with local implementation, offering a longitudinal and scalable solution for skills development using advanced simulation.

Method:
A longitudinal quasi-experimental study was conducted with 42 surgical and allied residents (R1–R4) from two private medical institutions in Karachi. Participants underwent structured training on AI-based simulators with interactive modules and real-time feedback. Assessments were conducted using validated checklists for laparoscopic skills and problem-solving abilities. Faculty observed residents in the OR to assess skill transfer using structured evaluation tools. Pre- and post-training scores were analysed to determine improvement.

Results of Evaluation:
Post-training evaluations showed a significant increase in both technical and cognitive competencies. The score improved from 62% to 88% ($p < 0.001$). Performance in the OR improved across all levels, particularly among junior residents (R1–R2), who displayed greater confidence and procedural accuracy. The built-in feedback mechanisms of the simulator helped identify learning gaps and guide individualized improvement.

Potential Educational Impact:
This innovation demonstrated both immediate and long-term educational benefits. In the short term, residents acquired hands-on experience and enhanced critical thinking within a controlled environment. In the long term, the model has the potential to standardize laparoscopic education across institutions, reduce learning curve duration, and ultimately improve patient safety by ensuring better-prepared surgical graduates.

Feasibility of Innovation:
The course was practical and well-received by participants and faculty. The AI simulators, while requiring initial investment, were cost-effective due to reusability, scalability, and reduced need for human instructors in early training phases. Feedback from learners indicated high satisfaction with the course content, delivery, and relevance to real-world surgical practice. The collaborative model also allowed for knowledge exchange and sustainable capacity building.

Conclusion:
This study supports the implementation of a globally developed, AI-based laparoscopic course as a practical, innovative, and effective solution for enhancing surgical education in resource-constrained settings. The course successfully improved residents' procedural and problem-solving skills and demonstrated clear evidence of skill transfer to clinical practice.

Take Home Message:
A globally developed, AI-based laparoscopic simulation course can significantly improve surgical and problem-solving skills among residents. Such innovative, technology-driven training enhances real-world performance and offers a scalable model for surgical education in diverse healthcare settings.

ABSTRACT ID:
RHIME-004

Impact Of Interprofessional Cardiotocography Educational Course on The Decision to Delivery Interval of Emergency Caesarean Sections: A Novel Concept to Assess Effect of Medical Education on Clinical Outcomes

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Background:
Cardiotocography is one of the most common modalities for assessing fetal well-being during labour. Inaccurate Cardiotocography interpretation leads to adverse neonatal outcomes in Obstetric patients. Current studies on cardiotocography educational courses lack the foundation of educational theories in course development and multi-modal instructional strategies for adult learning, and valid assessment strategies. Hence this study aimed to assess the impact of a multimodal interprofessional Cardiotocography educational course on participants'3monthdelayed scores and its impact on the Decision to Delivery (DDI) Interval of Emergency Cesarean Section.

Rationale of Innovation:
A systematic review concluded that the overall impact of CTG educational courses on neonatal outcomes failed to show improvement. Studies on CTG educational courses lack multi-modal instructional strategies for adult learning and strategies for clarifying and reinforcing concepts. This study aimed to assess the impact of the CTG course on a clinically useful intermediate outcome like DDI of an emergency Caesarean Section done for an abnormal CTG, as well as long-term knowledge retention in Obstetric health care providers. So far in literature this clinical parameter (DDI) has not been used to assess the effectiveness of a CTG educational course. No study in the literature on CTG course development has reported a three-module, multimodal CTG course incorporating educational practices based on best evidence.

Objective:
To measure long-term retention of CTG knowledge and assess the impact on DDI of a CTG course.

Methods:
The quasi-experimental study was conducted in Aga Khan University Hospital and involved administering an intervention, a blended-learning multi-modal educational course, to observe any impact on knowledge of the obstetric healthcare providers and DDI. The educational intervention had three components: the Virtual-Learning-Environment Module, the Face-to-face Workshop Module, and the On-line Refresher Module. Results were analysed for delayed knowledge retention and impact on Decision-to-Deliver-Interval.

Results:
There were 222 participants. The pre-test median score was 65.1%, which improved to 87% after the Virtual Learning Environment

and Workshop Modules (p=0.0005). After the 3-month delayed Refresher Module, the test scores increased to 95% (p=0.02). The proportion of emergency Caesarean sections performed during working hours within a Decision-to-Deliver Interval of 30 minutes increased from 18% to 28.6% (p=0.036) after the CTG course.

Potential Educational Impact:
It is the first study to demonstrate improvement in the proportion of emergency Caesarean Sections performed for fetal distress within a DDI of 30 minutes after the introduction of a CTG course.

The study proves that CTG course grounded in educational theories, using multimodal strategies can bring about a change in clinical outcomes in as short a period as three months as well as improve long term knowledge scores of health care professionals.

Feasibility of Innovation:
The development of online module is a onetime activity and the face-to-face workshops can be conducted by a group of consultants by developing an annual roster. Since this course was developed in resource constraint setting, the results can easily be implemented in any LMIC. Further, post course evaluation demonstrated high satisfaction among the course participants.

Conclusion:
This study has shown significant long term knowledge gain of Obstetric health care providers after the Interprofessional CTG Course developed on best educational practices. This ultimately led to an increasing proportion of timely Emergency Caesarean Sections performed for fetal distress within the benchmark time of 30 minutes of DDI.

Take Home Message:
This quasi-experimental study has shown significant knowledge gain after the 3-step effective Interprofessional CTG Educational Course (ICEC) developed on best educational evidence and practices. It significantly improved the knowledge of Obstetric nurses, midwives, and doctors. The study also showed significant increase in knowledge retention 3 months later, due to the Refresher Module with individualized feedback.

The equalisation of test scores post-CTG educational course intervention in tertiary and secondary care hospitals has not been reported before. The greatest improvement was in the midwives knowledge. Improvement in midwives and nurses' CTG-related knowledge results in the timely involvement of doctors and appropriate decisions. This ultimately led to an increasing proportion of timely Emergency Caesarean Sections performed for fetal distress within the benchmark time of 30 minutes of DDI during working hours.

ABSTRACT ID:
RHIME-005

From Clinic to Community: Advancing Rural Health with EPAs to prepare House officers for Primary Care duties

Background:
In Pakistan, like most global southern countries Basic Health Units (BHUs) are the primary healthcare touchpoint for over 60% of the population, predominantly in rural areas. Despite their critical role, newly graduated house officers (HOs) are frequently ill-equipped for the unique demands of rural postings. Current medical internship programs are heavily weighted towards urban, hospital-based tertiary care, significantly under-preparing HOs in crucial community-based, preventive, and leadership skills vital for effective BHU function. This disconnects results in high rates of HO absenteeism, widening disparities in healthcare access, and poor retention of medical professionals in primary care settings, especially in underserved rural regions.

Entrustable Professional Activities (EPAs, as an outcome-based framework, offer a robust and practical solution to systematically scaffold HO readiness for independent and confident service at BHUs.

Rationale of Innovation:

This innovation directly addresses a critical gap in Pakistan's medical education and healthcare delivery system: the preparedness of generalist physicians for rural primary care. Traditional competency-based medical education often lacks the specificity and real-world application needed for diverse rural contexts. EPAs, by clearly defining specific professional tasks that can be "entrusted" to learners, provide a concrete and actionable framework. The innovative integration of a mobile-based microlearning and EPA tracking app, "BHUNav," is designed to be cost-effective and highly adaptable to the Global South context, particularly in resource-limited rural settings where internet access can be intermittent. This approach directly caters to rural health, a sector of paramount importance for achieving Universal Health Coverage in Pakistan, by providing practical, on-the-job training and supervision that is otherwise challenging to deliver.

Methods:

A robust three-phase mixed-methods study design was implemented. Phase I involved a national needs assessment to comprehensively understand the responsibilities and challenges faced by HOs in BHUs resulting in development of the Pak COMPASS competeny framework This included in-depth interviews with 30 key stakeholders (medical educators, rural health practitioners, policymakers) and a thorough review of relevant national health policies. Phase II employed a two-round modified Delphi technique involving 30 national experts from diverse fields including family medicine, public health, and rural health services. This iterative process was instrumental in co-developing and rigorously validating a list of 9 core EPAs specific to HOs working in BHUs. Phase III focused on the early-stage co-design and pilot testing of the "BHUNav" mobile application as well as making an entrustment scale for global south doctors. This app was conceptualized to provide short, contextualized training modules, milestone checklists for EPAs, and a supervisor dashboard for remote entrustment decisions and feedback. The prototype was pilot-tested with 15 recent HOs serving in a rural Punjab setting to gather initial usability and acceptability data and implemented on 150 house officers at Madina Teaching Hospital, Faisalabad.

Results of Evaluation:

Nine highly relevant EPAs were successfully finalized, tailored to the unique primary care needs in Global South (in particular Pakistani) BHUs. These included essential activities such as "Gather a Comprehensive Patient History and Perform a Focused Physical Examination," "Formulate, Communicate, and Implement Management Plans," and "Perform Essential Procedures for BHUs". Each EPA was meticulously mapped to specific training competencies and directly aligned with national health priorities, including Universal Health Coverage and Maternal, Newborn, and Child Health (MNCH) goals. The BHUNav prototype demonstrated high usability and acceptability among the pilot HOs, validating its potential as a supportive tool. Supervisors particularly lauded the entrustment feature, which facilitated remote assessment, and the feedback mechanism, enabling continuous professional development. Key barriers identified included the challenge of intermittent internet access in remote areas and a clear need for supervisor training on the nuances of EPA language and their practical application.

Potential Educational Impact:

This innovation has the potential to revolutionize medical internship training in Pakistan and the global south by shifting focus from passive observation to active,

competency-based entrustment, specifically for primary care. By integrating these EPAs into the national internship program, HOs will gain practical, contextualized skills and confidence needed for rural postings. The BHUNav app, as a cost-effective and scalable solution, democratizes access to ongoing learning and supervision, particularly for those in remote areas. This will lead to a more prepared, confident, and accountable physician workforce, directly enhancing the quality and accessibility of primary healthcare services for Pakistan's vast rural population.

Feasibility of Innovation:

The proposed EPA framework and the BHUNav app are highly feasible for implementation in the GS region. The co-development process ensured contextual relevance and buy-in from national experts. The mobile app leverages widespread smartphone penetration, making it accessible even in rural areas, and its asynchronous nature addresses connectivity challenges. The cost-effectiveness stems from utilizing existing mobile technology and reducing the need for extensive in-person training. Sustainability will depend on strategic integration with the Pakistan Medical and Dental Council (PMDC) for curriculum alignment and with provincial health departments for policy adoption and resource allocation. Initial pilot results are promising, highlighting user acceptance and the potential for successful large-scale deployment.

Conclusion:

Contextualized EPAs offer a transformative solution to bridge the critical gap between tertiary medical training and rural primary care deployment for Pakistani house officers. Embedding this framework into the national internship program, bolstered by a cost-effective, Pakistan-context-specific, and rural-health-focused tech-enabled tool like BHUNav, can significantly enhance the preparedness, confidence, and accountability of primary care providers. This innovation is crucial for strengthening Pakistan's healthcare system, particularly in underserved rural areas. Successful scale-up will require robust policy alignment and collaborative efforts with national and provincial health authorities.

UNDERGRADUATE STUDENT SYMPOSIUM ABSTRACTS

ORAL PRESENTATION

Curriculum Design

ABSTRACT ID:
ORF-CUD12

Role of student led podcasts in redefining medical education - a study on the development of Via Sana, the Travel Medicine podcast

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Introduction:
As education strives for innovation, traditional teaching methods find unconventional modes of delivery. Via Sana is an example. It is a podcast, produced by students of AMSA IMU, in collaboration with NUI Galway and faculty members of IMU University. This study aims to describe the development of Via Sana, document the challenges faced and evaluate the impact of this podcast on the academic journey of the student interviewers, health education delivery at IMU and the accessibility of medical knowledge to students worldwide.

Methods:
A descriptive format was used to document the timelines, events, key milestones, and the release of content. Data sources include meeting minutes, internal communication (Email, WhatsApp, Microsoft Teams), and data from distribution platforms (YouTube and Spotify). An online questionnaire was employed to gather reflections from the student interviewers.

Results:
The podcast production process served as a valuable learning experience, fostering the development of key soft skills like communication and time management. The student interviewers reported increased adaptability, critical thinking and conversational ability. They also responded that this experience led to an overall increase in knowledge about travel medicine, and the technical aspects of content curation for a podcast.

Conclusion:
Producing this podcast uniquely blended knowledge gathering with application – enabling retention and promoting curiosity. Via Sana stands as a testament to the immense value behind student-led podcasts and their promise as educational tools that can disseminate information about globally relevant health topics to the international medical student community.

ABSTRACT ID:
ORF-CUD13

Case Report of Development of Leadership and Communication Projects for Undergraduate Medical Students through Student Collaboration across Thailand

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Abstract non-technical skills such as leadership and communication are critical for medical students' development. At the annual congress of medical student unions, representatives from all Thai medical schools identified these competencies as top priorities. In response, the Society of Medical Students of Thailand (SMST), in collaboration with medical student unions nationwide, launched a leadership and communication development project designed to reflect real-world clinical practice and aligned with the needs of Thailand's healthcare system.

The project was developed under expert guidance, based on the Medical Leadership Competency Framework (MLCF) from the

Academy of Medical Royal Colleges. Activities included interactive lectures, small-group discussions, group presentations on healthcare topics, simulation-based exercises, inspirational talks, and team-building sessions. A post-program questionnaire was distributed to assess participant demographics, leadership competencies, and program feedback.

Forty-three students from 18 medical schools participated. 34.9% had no prior leadership experience, while 23.3% had extensive leadership background. Based on post-project self- reports, the highest-rated domain was "collaborator" (mean 4.81/5, SD ±0.08), particularly in teamwork. Students without leadership experience reported increased confidence in their leadership potential (mean 4.73/5, SD ±0.46), while experienced students highlighted improvements in team management. Participants identified real-life role-play scenarios, expert feedback, and collaborative group work as the most impactful components of the program. Key findings were shared with all Thai medical schools to support local implementation and inform discussions at the national medical education conference to support curriculum development.

Through nationwide collaboration, the SMST plays a key role in promoting essential non-technical skills among medical students. Integrating real-world experiences with guidance from experienced advisors enhances students' development as effective leaders and communicators. Moreover, this collaborative initiative among Thai medical schools provides valuable insights that can inform and strengthen medical education at both institutional and national levels.

Takeaway Message:
Collaborative learning among medical students from various institutions through student-initiated activities guided by expert mentors effectively enhances leadership and communication skills essential for future physicians. Such initiatives not only better meet participants' needs but also generate meaningful impact on medical education at both institutional and national levels.

Educational Technology

ABSTRACT ID:
ORF-EDT14

Assessing Undergraduate Students' Awareness and Perspectives on Artificial Intelligence in Medical and Allied Health Sciences: A Developing Nation's Context.

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Background:
In developing countries like Pakistan, AI adoption in clinical practice is advancing faster than its inclusion in medical education. This study aims to assess undergraduate healthcare students' knowledge, perceptions, and attitudes toward AI, as well as their readiness for integrating AI into the medical curriculum.

Method:
A descriptive cross-sectional study was conducted at Riphah International University, Rawalpindi, between August and October 2023. Universal sampling was used to recruit all eligible undergraduate students from medicine, dentistry, pharmacy, nursing, and physical therapy programs. A validated 5-point likert scale based Canadian questionnaire was adapted for local relevance through expert review, demonstrating good reliability (Cronbach's α 0.7–0.87). A total of 939 students completed the online survey. Due to non-normal data distribution confirmed by Shapiro-Wilk and Kolmogorov-Smirnov tests, non-parametric statistical analyses including Kruskal-Wallis H and Mann-Whitney U tests were conducted using SPSS version 26.

Results:
While 77% attended AI-related lectures, only 11.8% had formal training. A Kruskal-Wallis test showed significant discipline-based knowledge differences ($\chi^2 = 10.091$, $p = 0.039$), with BDS and DPT students scoring higher; the Mann-Whitney U test showed no gender difference ($Z = -0.363$, $p = 0.717$). Students favoured AI use in documentation (73.6%), treatment planning (68.7%), and diagnosis (63%). Nursing students showed the most positive attitudes. No discipline-based differences in patient care perception ($\chi^2 = 4.739$, $p = 0.315$) were found, but gender differences were significant ($Z = -2.322$, $p = 0.019$). Ethical concerns were common, with no significant differences by discipline ($\chi^2 = 2.445$, $p = 0.294$) or gender ($Z = -1.044$, $p = 0.297$). A strong majority (82.2%) supported the formal integration of AI education into the medical curriculum.

Conclusion:
Despite limited formal training, students exhibit strong interest and recognize AI's value in medical field. However, knowledge gaps and ethical concerns highlight the need for AI education to prepare future healthcare professionals for AI-enhanced healthcare, especially in resource-limited environments.

Take Home Message:
To fully harness AI's potential in healthcare, medical education in developing countries must evolve rapidly. Empowering students with both technical skills and ethical insight through early, AI training will equip future clinicians to navigate and lead in AI-integrated healthcare systems.

Professionalism and Ethics

ABSTRACT ID:
ORF-PAE03

The Impact of Community Service Engagement on Professional Identity Formation of Undergraduate Medical Students

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Background:
Community service activities offer valuable educational benefits for medical students, including early clinical exposure for undergraduate medical students who have limited exposure to real-life health problems in the community. Socialization into a community of practice is a vital process for developing students' professional identity (PI), but there are limited studies that focus on exploring the impact of community service on students' PI. This research aimed to explore how participation in community service activities influenced undergraduate medical students' PI formation.

Method:
This qualitative phenomenological study was done on six undergraduate medical students who had prior experience in participating in community service activities (i.e., health promotion, medical check-up, and live-in activities). Data was obtained from in-depth, semi-structured interviews. All interviews were audio recorded, transcribed verbatim, and then analysed thematically.

Result:
Each respondent indicated that engaging in community service activity strengthened their pre-existing concept of an ideal physician. They

refined their ideal models of physicians after participating in a community service activity into someone 'sensitive', 'adaptive', with a 'great expanse of knowledge', and willing to 'sacrifice themselves for the community's sake'. Engaging in community service activities also facilitated participants' communication and procedural skills, particularly the skills required to perform their community service, further depicts the ideal of a competent physician.

Discussion:
When asked, 'what do you think an ideal physician is like?', undergraduate medical students can only imagine based on how they thought a physician should act in certain situations without ever being in those positions themselves. When faced with a 'real' physician-patient interaction, students tend to reflect on and compare it to the ideal physician figure they had previously envisioned, either affirming or rejecting it, and through situations they had not been previously encountered nor imagined, it creates a new ideal physician figure they thought suits those specific situations.

Takeaway Message:
Interaction with the community through community service strengthens and promotes the formation of community-oriented professional identity concepts. Incorporating community service activities into the formal curriculum is important to support PIF in undergraduate medical students.

ABSTRACT ID:
ORO-PAE04

Scientific Olympiad Participation and Its Influence on the Development of Undergraduate Medical Students' Professional Identity

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Background:
Professional identity shapes how medical students think, act, and behave toward patients. Its development is ongoing and influenced by both formal education and informal experiences, including social interactions and extracurricular activities. One such activity is the scientific Olympiad. Unlike most extracurriculars, it requires a competitive selection process focused on knowledge and skills typically attracts students with high academic motivation. While Olympiads are generally seen as enhancing cognitive abilities, their role in shaping professional identity is less explored. This study aims to examine how participating in scientific Olympiads contributes to the professional identity formation of medical students.

Methods:
This study used a phenomenological qualitative research design involving four undergraduate medical students at the Catholic University of Indonesia Atma Jaya. Data was collected using semi-structured interviews. All interviews were transcribed verbatim and analysed using thematic analysis.

Results:
Participants joined the Olympiad for reasons such as personal growth, the desire to showcase abilities, and to gain parental recognition. All participants reported that their involvement helped them grow in four pillars

of professional identity: scientific knowledge, ethics, professional behaviour, and leadership. Studying for the Olympiad deepened their knowledge base, while social interactions during preparation improved their ethical communication with peers and mentors. Teamwork and collaborative work also fostered leadership and professional behaviour.

Conclusion:
Scientific Olympiad participation supports the development of four pillars of professional identity in medical students. Social interactions with teammates and supervising doctors further enrich this process by providing role models and shaping professional identity.

Take home message:
Social interactions within the science Olympiad community, along with the learning process, contribute to the development of the four pillars of students' professional identity. Integrating science Olympiad activities into the formal curriculum would allow all students to engage in these experiences. This approach offers a valuable opportunity to support the formation of professional identity among undergraduate medical students.

ABSTRACT ID:
ORF-PAE08

Conceptual framework of rural-streamed medical students' professional identity of general practitioners: a focus group study

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Background:
China launched the Rural-streamed Medical Student Program (RMSP) in 2010 to address the shortage of general practitioners (GPs) in primary care. However, low career retention among RMSP participants has been linked to insufficient practical experience and weak professional identity (PI). This study seeks to explore the factors influencing PI and develop a conceptual framework to support the formation of PI among RMSP participants.

Methods:
Purposive sampling was used to recruit 42 participants. Semi-structured focus groups were employed with RMSP participants at different stages of medical education in China, divided into 9 focus groups. The discussions were audio-recorded, transcribed, and analysed using deductive thematic analysis to develop a conceptual framework based on the factors involved in the socialization and Personality Ring of Theory (PRoT).

Results:
A conceptual framework was developed with 11 themes, which were categorized into 3 dimensions based on PRoT: the societal ring, encompassing practical conditions, attitudes of/treatment by others, policies, and formal curriculums; the relational ring, comprising relationships with role models & mentors, close ones, patients, and peers; and the individual ring, incorporating reflective experience, character, and values, beliefs, and ethics. The themes within the same or different dimensions interact dynamically. Moreover, as learning progressed, clinical students emphasised more internal ring factors, while external themes were more frequently mentioned by pre-clinical students.

Conclusions:
This study develops a conceptual framework integrating societal, relational, and individual dimensions to map PI development across training stages, highlighting the dynamic nature of PI formation among RMSP participants in China. The findings emphasise the need to address systemic barriers and prioritize educational interventions to strengthen China's primary care workforce.

Takeaway Message:
This study develops a conceptual framework for understanding the development of professional identity among Rural-streamed Medical Student Programme participants in China. The framework highlights the dynamic interplay of societal, relational, and individual factors across different stages of medical education. Key findings emphasise the importance of addressing external barriers and strengthening educational interventions to enhance PI formation, thereby improving career retention and supporting the growth of China's primary care workforce.

ABSTRACT ID:
ORF-PAE12

Using Role-Play Simulations to Foster Ethical Competency in Undergraduate Medicine

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Background:
Medical professionalism and ethical decision-making are critical competencies in healthcare practice. Traditional classroom-based instruction often lacks real-world relevance. This study explores the effectiveness of role-play simulations in enhancing ethical decision-making skills among final-year students of Pharmaceutical Sciences at a private university in Pakistan.

Method:
A total of 70 final-year students participated in simulation-based role-plays addressing ethical issues such as patient autonomy, informed consent, and end-of-life care. Confidence in ethical decision-making was assessed before and after the sessions using a 5-point Likert scale. A pre-validated Professional Ethics in Pharmacy (PEP) Questionnaire adapted from Hicks et al. (2001) was used for this purpose. Ethical reasoning was measured using a 5-point ethical decision-making scale based on clinical vignettes, derived from literature in clinical ethics education. Reflective essays submitted by students were analyzed thematically to explore qualitative changes in ethical insight.

Results:
Students' confidence in ethical decision-making improved significantly, with mean scores rising from 3.1 to 4.4 ($p = 0.002$). Thematic analysis of reflective essays identified four core themes: recognition of patient autonomy, importance of empathetic communication, ethical conflict resolution, and integration of professional values into practice. Students also demonstrated enhanced ability to identify ethical dilemmas, justify decisions using ethical principles, and articulate professional responsibilities.

Conclusion:
Role-play simulations offer an effective and practical pedagogical approach to teaching ethics in medical education, helping students better internalize ethical principles and apply them in realistic clinical contexts.

Reference to Questionnaire:
The Professional Ethics in Pharmacy (PEP) Questionnaire used in this study was adapted from the ethical sensitivity instrument developed by Hicks et al. (2001), which assesses confidence and reasoning in professional ethical decision-making in healthcare contexts.

References:
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ABSTRACT ID:
ORF-PAE13

Perceived Knowledge, Perception & Readiness of University Students on Sustainability Education & Practice

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Background:
Education for Sustainable Development (ESD) equips individuals with the knowledge, attitudes, and values required for sustainable living. University students, as future leaders, must be well-versed in sustainability principles, particularly within healthcare institutions where such practices can have far-reaching impacts. Knowledge of and practicing sustainability is an important ethical and professional responsibility of health students. This study aims to assess students' perceived knowledge, perception, and readiness toward sustainability education and practice at a private healthcare university in Malaysia.

Methods:
A cross-sectional study was conducted among students from foundation, undergraduate, and postgraduate programs at IMU University campuses. An online questionnaire was developed by the research team based on a review of previously published instruments. Expert opinions were obtained to ensure content validity prior to dissemination. It was disseminated via institutional emails and social media platforms. Both quantitative (Likert scale, multiple-choice) and open-ended data were collected. A minimum sample size of 426 students was targeted, accounting for a 20% attrition rate. Data was analysed using IBM SPSS version 29. Statistical significance was set at $p \leq 0.05$.

Results:
A total of 427 respondents completed the study; 328 were female and 351 were Malaysians. Most (83.6%) were pursuing undergraduate programs; 81% had not taken any course related to sustainability. About environmental health and planetary health 92.3% and 87.2% regarded their knowledge as fair or good. Respondents were most familiar with climate change, renewable energy and waste management. Climate change, pollution and deforestation were mentioned as the key sustainability challenges facing the planet. Most preferred workshops or seminars for sustainability education while others preferred extracurricular activities or to be integrated into existing courses. Conserving water/energy, using reusables and reducing plastic use were the most common sustainability actions undertaken by the respondents. The median level of concern score of the respondents about current sustainability challenges was 13 and the interquartile range was 4 (maximum score 24).

Conclusion:
Findings from this study will inform the university's efforts to integrate sustainability into its curriculum and promote sustainable practices among students. By identifying knowledge gaps and attitudes, the study will contribute to the development of targeted educational strategies and institutional policies.

Keywords:
Perception, Readiness, Sustainability Education, Sustainability Practices, Perceived Knowledge.

Teaching And Learning

ABSTRACT ID:
ORF-TAL32

Intellectual Harassment and Its Impact on Psychological Well-being, Professional Development, and Workplace Satisfaction among Medical and Dental Trainees in Islamabad

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Introduction:
Intellectual harassment, a form of academic bullying involving the belittling of ideas, coercive authorship practices, and other abuses of power, is increasingly being recognized in medical and dental education. This study quantified the prevalence of intellectual harassment and evaluated its relationship with psychological well-being, professional development, and workplace satisfaction among medical and dental trainees in Islamabad, Pakistan.

Method:
This study employed a quantitative, correlational research design. A sample of 150 students (50 from three different medical colleges) was selected using stratified random sampling. Data were cross-sectionally collected using a structured 5-point Likert scale questionnaire. We computed composite scores for overall harassment (five items, score range 5–25) and for each outcome domain (three items each for well-being, professional development, and workplace satisfaction; score range 3–15). Descriptive statistics and Spearman's rank correlations were used to analyze the prevalence and associations between harassment and outcome measures. Written informed consent was obtained from all participants.

Results:
At least half of the trainees reported experiencing a form of intellectual harassment. 65% percent were pressed to list a supervisor as a paper's corresponding author, 56% felt intimidated by supervisors, and 63% perceived the persistent sarcastic ridicule of their intellect. The mean (±SD) composite scores were harassment 10.2 ± 3.3, psychological well-being 9.6 ± 3.3, professional development 9.2 ± 3.3, and workplace dissatisfaction 9.5 ± 3.3 (higher scores indicate worse outcomes). Intellectual harassment showed strong correlation with poorer psychological well-being ($\rho = 0.63$), hampered professional growth ($\rho = 0.59$), and greater workplace dissatisfaction ($\rho = 0.74$), (all $p < 0.001$)

Conclusions:
Intellectual harassment is common among medical and dental trainees in Islamabad and is strongly linked to adverse outcomes in trainees' psychological wellbeing, professional development, and workplace satisfaction

Takeaway message:
Intellectual harassment is a prevalent and harmful issue in medical and dental training in Islamabad that significantly undermines students' mental health, career growth, and workplace satisfaction. This highlights the urgent need for institutional policies to recognize, address and prevent academic bullying.

ABSTRACT ID:
ORF-TAL35

“High-Fidelity Simulation or Video? Comparing ECG Interpretation Skills in Early Medical Students” â€“ A Randomised Control Trial

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Background:
Electrocardiogram (ECG) interpretation is a fundamental yet challenging skill for medical students, particularly at the preclinical level, due to its technical complexity and steep learning curve. This study aimed to compare the effectiveness of High-Fidelity Simulation Teaching (HFST) versus Video-Assisted Teaching (VAT) in improving ECG interpretation skills among preclinical medical students, using Objective Structured Clinical Examinations (OSCEs) for assessment of performance, retention of skills, and basic management of common heart problems.

Methods:
In this randomised controlled trial, 136 first-year undergraduate medical students were allocated to either an intervention group (HFST) or a control group (VAT). Sample size was determined using G*Power software. In week 1, the intervention group participated in a facilitated simulation session using high fidelity simulator (SIM-man), while the control group received a structured video-based instructional session. Immediately following the sessions, both groups underwent an OSCE-based skills assessment, with additional two follow-up OSCE sessions conducted on weeks 6 and 12 to evaluate skill development and retention. Performance was assessed using a validated OSCE checklist. A two-way mixed ANOVA was used to analyse differences in OSCE scores between groups across the three time points, while repeated-measures ANOVA with post-hoc analysis evaluated intragroup changes over time.

Results:
Both HFST and VAT significantly improved ECG interpretation skills among preclinical students. While both groups demonstrated progressive improvement, the HFST group showed a statistically significant gain only between the first and third OSCEs, with a greater effect size. However, the interaction between teaching method and performance over time was not statistically significant, indicating no conclusive superiority of HFST over VAT.

Conclusion:
Both HFST and VAT are effective teaching strategies for ECG interpretation in preclinical medical education. Although HFST demonstrated greater improvements in performance and retention, the difference was not statistically significant. Further research involving larger sample sizes or varied educational settings may offer clearer insights into the relative effectiveness of different teaching approaches.

ABSTRACT ID:
ORF-TAL36

Developing General Practice Mindset in Medical School-Hospital collaborative Education Model？A Narrative Inquiry among medical undergraduates in China

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Background:
Cultivating general practitioners with strong clinical competence and grassroots medical understanding is critical in medical education. Developed countries such as the UK have

established mature general practitioner training systems through case-based learning and community-based rotations, effectively enhancing comprehensive competencies. In contrast, China's MSHCE model is currently undergoing exploratory trials. This study aims to analyze how students' general practice mindsets were shaped in a MSHCE program implemented jointly by Shantou University Medical College and Shenzhen Luohu Hospital Group in China.

Methods:
Grounded in Social Cognitive Theory, a narrative inquiry was conducted through in-depth interviews with six participants (Grade 2 to Grade 5) from the program.

Results:
The study revealed that the MSHCE program, integrating Problem-Based Learning (PBL), Preclinical Medicine (PMED), and community health internships, effectively rectified students' initial biases influenced by familial and societal factors through emphasizing systematic thinking, humanistic care, and interdisciplinary knowledge integration, thereby accelerating concept internalization and role adaptation.

Conclusion:
However, challenges such as resource inequality, theory-practice gaps, and societal undervaluation of general practitioners persist. To optimize general practice education, future efforts are suggested to prioritize authentic practical exposure, enhanced career guidance, institutional resource collaboration, and curriculum reforms emphasizing theory-practice integration.

Keywords:
General practitioners, Medical education, MSHCE model, Clinical competence, Social Cognitive Theory, Curriculum reform.

Stakeholder Engagement

ABSTRACT ID:
ORF-STE01

Development of a questionnaire to measure satisfaction between deaf sign language users and doctors

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Introduction:
The Deaf face communication barriers in healthcare settings. Poor communication contributes to adverse medical outcomes and dissatisfaction. Efforts are being made to resolve communication issues. However, there is the need for a valid instrument to evaluate satisfaction so that the outcomes of these efforts can be measured. We created a Bahasa Malaysia questionnaire for the Deaf to measure satisfaction with healthcare communication.

Methods:
Construct identification involved communications experts (AD, RS), a psychologist (KB), and persons working with the Deaf (LL, DDA). Items were generated from the literature. Content validity was assessed by subject matter experts. We conducted forward and back translation, face validity evaluation, and pilot testing. The final questionnaire (14 items, 5-point Likert scale, written in Bahasa Malaysia) was then administered in-person and remotely to participants. Participants were recruited through the Negeri Sembilan Deaf Association and YMCA Kuala Lumpur. Inclusion criteria were deaf adults using Bahasa Isyarat Malaysia (BIM) sign language, communication with a doctor in any clinical setting while deaf, and the ability to read Bahasa Malaysia.

Results:
We received 114 valid responses. After reliability testing one question was removed, leaving thirteen. Cronbach's alpha, Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity significance values were 0.92 (high internal consistency), 0.88 (adequate sampling), and $p<0.001$ (excludes an identity matrix, justifying factor analysis) respectively. Exploratory factor analysis based on Eigenvalues >1 indicated three potential domains explaining 72% of total variance. The domains were: (1) doctor-patient relational dynamics and patient confidence, (2) interpreter services, and (3) overall communication effectiveness. These domains encompassed five, three, and five questionnaire items, respectively. Test-retest reliability scored 0.85. The mean satisfaction score was 77.8% (average 50.6, SD 8.2).

Conclusions:
The questionnaire demonstrated excellent reliability. Deaf persons seemed fairly satisfied with their healthcare experiences.

Takeaway message:
The questionnaire is a robust tool for measuring satisfaction during Deaf-doctor communications.

ABSTRACT ID:
ORF-STE02

A Case study of SMST Academic Network: Enhancing Student and Educator Engagement on Well-Being Through Nationwide Collaboration Across Thai Medical Schools

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The Society of Medical Students of Thailand (SMST), founded in 1990 as a collaborative organization of Thai medical student unions, recognized the need to strengthen student engagement (SE) in medical education nationwide. Therefore, SMST established the Academic Network in 2022 to connect academic representatives from all 28 Thai medical schools and promote collaboration, educational improvement, and national policy influence. We propose an analysis of the Academic Network contribution to the development effort of student engagement on well-being nationwide.

We organized interviews with committees from 28 Thai medical students' unions to identify key challenges and priorities related to education, research, and SE. Representatives, including academic affairs officers, class presidents, SE team, and students interested in medical education, were invited to join the network. We conducted triannual 3.5-hour online sessions and one in-person meeting annually, featuring discussion forums with experienced students and educators. Insights from these sessions informed the development of nationwide surveys, distributed to Thai

medical students, with findings shared with Thai medical schools and national organizations.

In 2024, 171 students from 28 medical schools joined the network, with 62 (36.3%) completing an orientation questionnaire. Student well-being was identified as the top priority (37.1%), along with the need to strengthen student–educator collaboration. SMST subsequently conducted four meetings and distributed surveys based on consensus from meetings exploring perceptions of good medical teaching, well-being in medical training, and key characteristics of medical students. These findings were provided to 28 medical schools to support improvements in their individual curricula and contributed to a national declaration of intent for collaborative development in medical education.

This study highlights the value of engaging students' stakeholders at a national level integrated with insights from medical teachers. Sustained contributions from the national medical student society should be encouraged to drive long-term improvements in medical education.

ABSTRACT ID:
ORO-STE05

The Need for a Globalized Medical Curriculum: Voices of Medical Students Aspiring to Pursue a Career Abroad

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Background:
In recent years, an increasing number of medical students aspire to pursue their education or training opportunities abroad. However, many students face hardships in adapting to different healthcare system, clinical setting, cultural background, and educational models when they head to a global healthcare ecosystem. These challenges illuminate the gap between medical curriculum grounded in the local context and demands of global healthcare. Although efforts to globalize medical curricula is still in its infancy, there is a growing recognition among educators to globalize health professions education. However, there is lack of research on how medical students perceive this need, particularly among those planning to study abroad. Exploring their viewpoints can inform educational reforms to prepare the future healthcare professionals for international mobility. To this end, this study intended to explore how medical students who desire to pursue their education abroad perceive the need for globalized medical education.

Methodology:
This qualitative exploratory study was conducted using semi - structured interviews and focus group discussions with year I - IV medical students aspiring to study abroad recruited by purposive sampling. The interviews were audio - recorded and transcribed verbatim. Thematic analysis was conducted using Braun and Clarke' s framework.

Results:
Thematic analysis revealed that students aspiring to study abroad are optimistic and strongly support the globalization of medical education. They highlighted the sense of inadequacy to navigate international healthcare systems and advocated for early global exposure and curricular reforms to encompass cross cultural and transnational competencies in medical education.

Conclusion:
This study highlights that students with aspirations to study abroad perceive a strong and exigent need to globalize medical education. To address this need, curricula should be reformed to incorporate international perspectives, global health

competencies, offer global exchange opportunities and empower students to navigate the terrain of international healthcare system.

Takeaway Message:
Medical students aiming to study abroad strongly feel the need for a globalized medical curriculum, culturally competent and in alignment with the international standards. Embedding global perspectives, transnational competencies and offering exchange programs can prepare students to excel in global healthcare settings.

ABSTRACT ID:
ORF-STE06

SMST Academic Relationship Camp: Key Features Among Thailand's Medical School Educational Systems in Domain with Examples Referred from Student Union Representatives' Aspects

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Department of Quality Development, SMST (The Society of Medical Students of Thailand), gathers representatives from all medical student unions across Thailand's medical schools to participate in the SMST Academic Relationship Camp. This camp aims to promote academic development and facilitate institutional exchange on Thailand's medical curricula by identifying and analysing current features to assist medical education development together with faculties.

80 representatives from 18 institutions participated in a discussion session to exchange four main features:

1. Student Evaluation System
2. Research Support System
3. Academic Opportunity
4. Feedback System

Data are presented in groups categorized by the institution's established year, i.e., up to 60, 50, and 40 years of establishment, respectively.

Among the 18 institutions, all in the 60-year group changed the evaluation system from a grading system to a new system categorizing students as Unsatisfactory, Satisfactory, and Excellent. On the contrary, the remaining groups still adhere to the grading system. The 40-year group has the highest rate, 90%, requiring students to conduct research during undergraduate study, while the requirement rates in the 50-year and 60-year groups are 83% and 33%, respectively. Furthermore, support is provided by both academic staff and student research affairs. The institutions without this requirement, on the other hand, rarely mention a support system. Early-Clinical Exposures are provided to all students in 60-year group, while only 33% and 60% are provided in 50-year and 40-year groups, respectively. All institutions in 60-year group created a student feedback and tracking system, while other groups lack a tracking system despite having feedback systems.

Over the years, there is variety in medical curricula among Thai medical schools. This finding highlights the necessity for further collaboration in curriculum design to promote Thailand's medical curriculum. Therefore, the SMST Academic Relationship Camp is a vital tool for enhancing Thailand's medical education.

Student Assessment

ABSTRACT ID:
ORO-SAS06

ERCP Training and Assessment – The Forgotten Aspects

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Background:
ERCP (Endoscopic Retrograde Cholangiopancreatogram) is a high-risk endoscopic procedure done to diagnose and relieve biliary problems such as stones and strictures. It requires high level of dexterity and therefore, the emphasis of training and assessment is on the skill aspect of performing the procedure. Anecdotally, there appears to be less emphasis on the training and assessment of non-technical aspects of ERCP training including knowledge base, communication skills & team working and situational awareness.

Aim:
The aim of the study was to explore the views of a group of current/previous ERCP practitioners regarding their impression of non-technical aspects of ERCP training.

Methods:
Five ERCP practitioners working at a single NHS Trust in Yorkshire were invited to participate in the study. The participants were interviewed. Transcripts of the interview were subsequently reviewed in detail by the student researcher and coded. Various categories were created and the findings were discussed.

Findings:
The interviews suggested that there was a lack of adequate emphasis of various non-technical aspects of ERCP training. The fully trained ERCPists were competent in these aspects; however, they were not formally catered for during training.

Conclusion:
This study suggests a lack of adequate emphasis on non-technical aspects of ERCP training including knowledge base, communication skills/team working and situational awareness. Further studies are needed with larger number of participants to explore this in detail.

Takeaway Message:
The non-technical aspects of ERCP training including knowledge base, communication skills/team working and situational awareness are important aspects that need to be formally introduced in ERCP training as reported by various ERCP practitioners. Therefore, in addition to technical aspects, certain non-technical aspects also need to be formally introduced in ERCP trainings.

E-Poster Presentation

Curriculum Design

ABSTRACT ID:
EPF-CUD06

Equity Challenges in Curriculum Entry Points: A National Review of Portfolio-Based Admissions to Thai Medical Schools

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Background:
Holistic admissions frameworks, including portfolio-based assessment, have been increasingly adopted in medical education worldwide. These approaches aim to recognise applicants' academic potential alongside personal attributes, extracurricular engagement, and social commitment. In Thailand, portfolio-based admissions have

become institutionalised across all public medical faculties. However, the extent to which such practices promote or hinder equitable access to medical education remains underexplored. This study investigates whether portfolio-based admissions criteria impose unintended structural barriers that disadvantage applicants from underrepresented or socioeconomically disadvantaged backgrounds.

Methods:
A cross-sectional descriptive study was conducted through comprehensive analysis of publicly available admissions guidelines from twenty-four public medical faculties in Thailand, covering the academic years 2020 to 2024. Key variables included academic prerequisites, English language proficiency requirements such as international standardised tests, additional standardised examinations such as biomedical aptitude tests, evaluation criteria for submitted portfolios, interview modalities, seat allocation for portfolio-based admissions, and financial implications including application and testing fees. The data were systematically reviewed to identify potential disparities in access and opportunity.

Results:
Portfolio-based admissions constituted between ten to one hundred percent of entry quotas, depending on the institution. All faculties required submission of portfolios demonstrating medicine-related activities, with portfolio components contributing between twenty-five and thirty percent of the total admissions score. Nine institutions required costly English language proficiency tests, and several mandated additional aptitude examinations. Application fees were universally applied, with no available waivers. Interview formats varied, with some institutions requiring resource-intensive multiple mini-interviews. The findings indicate significant variability in selection frameworks and a consistent financial burden placed upon applicants, potentially exacerbating existing educational inequalities.

Conclusion:
Although portfolio-based admissions intend to promote holistic candidate evaluation, the current structure may inadvertently reinforce socioeconomic disparities. Addressing these imbalances is essential for fostering inclusive access to medical education.

Takeaway Message:
To uphold the principles of equity in medical education, portfolio-based admissions must be designed and implemented with careful consideration of socioeconomic disparities. Institutions should strive to standardize evaluation criteria, reduce financial barriers, and ensure transparent, accessible pathways for all applicants—regardless of background or resources.

ABSTRACT ID:
EPO-CUD07

Cortex in Conversation: A Neuroscience-Based AI Chatbot to Overcome Mental Passivity in Learning

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Background and Aims:
The increasing integration of artificial intelligence (AI) in education has raised concerns about reduced neural engagement and mental passivity in learners. Research findings from Kosmyna et al. from MIT have indicated utilizing AI tools such as ChatGPT may reduce critical thinking and cognitive effort in tasks such as essay writing. While we do not advocate against AI, it is important in leveraging these technologies to develop critical metacognitive skills — the ability to

monitor, evaluate, and regulate one's own learning processes. Metacognition enables learners to assess their own understanding and knowledge gaps, the capacity to "know what you know and don't know".

To aid medical educators in integrating AI technology that prioritizes higher-order thinking and critical reasoning, this study has developed an AI chatbot for the neuroscience course to present concepts and questions in a stepwise progression from teaching concepts, to fostering higher-order thinking, to allowing students to utilize foundational clinical reasoning in diagnosis through illness scripts. The structure of the cases in the chatbot was unique in that it was composed of a decision tree with branching nodes of concepts and questions. The chatbot dynamically tailors its inquiries based on students' comprehension levels to encourage learners to engage with material deeply. If a student answers incorrectly, the chatbot prompts further exploratory questions rather than giving the answer, thus fostering self-discovery. This pilot study aims to assess the effectiveness of an innovative AI-integrated approach in combatting mental passivity and enhancing metacognition among learners.

Methods:
The neuroscience cases were presented through the medium of an in-house coded chatbot developed using Google Cloud Platform's (GCP) Conversational Agents service (formerly Dialogflow CX service). This enables an interactive interface for students to engage in medical case-based conversations. The chatbot had its user routes (utterances), intents (training phases), actions, and other parameters fine-tuned for optimal learner experience.

Neuroscience cases were developed by a team of faculty and students focusing on challenging, yet clinically essential, concepts. In this study, 15 preclinical medical students and 5 faculty worked through 3 related cases that had a clear stepwise progression in difficulty.

The first case assessed fundamental neuroanatomy concepts and spinal tracts, whereas the second expanded more on critical thinking and pathophysiology to localize and interpret lesions. The final third case was a presentation of Chiari I malformation with syringomyelia, relying on learners to apply foundational clinical knowledge and critical reasoning. Following completion of cases, participants completed an anonymized mixed-methods survey administered on Qualtrics designed to assess the chatbot's impact on learner engagement, metacognition, and learning outcomes. Survey responses were anonymized to ensure participant confidentiality. The survey contained over 15 Likert-style and open-ended questions, assessing participants' self-reported learning engagement and overall educational value of the tool. The quantitative data, along with qualitative feedback from students, were analysed using T-tests and ANOVA tests to inform the tool's effectiveness and proposed implementation.

Currently more participant data is being collected as well as tracking behavioural observation methods to objectively measure engagement patterns.

Results:
Preliminary findings demonstrated the neuroscience-based AI chatbot was met with immense user satisfaction, with 90% of participants reporting a very positive evaluation of the chatbot's utility and approach. Over 85% of participants indicated that the chatbot was significantly more engaging to them than a lecture or practice quiz and also that the chatbot helped them determine a gap in their knowledge they did not realize they had prior. More than 60% of participants indicated increased clinical confidence in the neurological pathologies described in the cases and nearly all participants expressed a desire for increased integration of similar tools in other courses. Common themes in the narrative feedback responses include

statements like "this tool helped figure out exactly what I need to review" and "I wasn't bored". Participants enjoyed how questions did not stop if they got something wrong and that the tool made them feel like they had a "personal tutor". These results emphasize the chatbot's success in overcoming mental passivity, fostering metacognitive habits, and promoting higher-order thinking. This study is still ongoing and currently more participant data is being collected/analysed as well as behavioural metrics to objectively assess participant engagement.

Conclusion:

In a time where technological advancements are so rapid, it is both inspiring and worrisome for the implications. Early studies are showcasing student usage of large language models like ChatGPT to result in impoverished critical thinking ability and diminished engagement. This neuroscience-based AI chatbot represents a strategy for a promising future of integrating AI in medical education to not only avoid reducing engagement but actually increase it in a manner that fosters higher-order thinking and developing an intuitive clinical reasoning foundation. Student and faculty participation indicates high user satisfaction, increased engagement, and more self-reflection on participant depth of understanding across different concepts. AI is a tool that is and will continue to drastically change what skills are valued in people, including medical students and educators. Prioritizing metacognition in training will not only circumvent pitfalls in AI-integrated education but will also lead to skills that will be wholly in demand in a technologically dependent society.

ABSTRACT ID:
EPF-CUD08

Bridging Basic and Clinical Medicine: A Student-Led Initiative to Integrate Medical Science Across Training Years

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Background:

In many institutions, preclinical and clinical medical education are delivered through distinct pedagogical approaches, emphasizing different learning outcomes. This divide can create a perception among students that foundational sciences are disconnected from clinical practice. To address this gap, a student-led initiative titled Link Lab was established at Chulalongkorn University. This event brought together medical students from first to fifth year with the objective of fostering vertical integration of physiology, pathophysiology, and clinical medicine. The initiative aimed to promote problem-solving, higher-order cognitive engagement, and the development of descriptive academic communication skills.

Methods:

Organized under the Student Union of Medical Students at Chulalongkorn University, the LinkLab initiative consisted of structured talks delivered by senior to junior medical students, sharing their clinical reasoning approaches during clerkship years. These sessions were followed by group discussions on real-world clinical scenarios that required integration of basic science concepts with clinical applications. A post-event survey was administered to evaluate participants' satisfaction, their recognition of the interconnections between foundational and clinical sciences, and their attitudes towards learning medicine as an integrated discipline.

Results:
Of the participants, 41.67% (10 out of 24) responded to the survey. The majority reported an improved recognition of connections between curricular content across the years of medical training, with a mean score of 4.30 out of 5.00. Furthermore, respondents expressed a more positive attitude toward the comprehensive nature of medical science, with a mean score of 4.80 out of 5.00. Qualitative feedback highlighted enhancements in information retrieval, critical thinking, and communication skills developed through the event.

Conclusion:
The Link Lab student-led initiative facilitated meaningful interdisciplinary engagement and fostered curricular integration across training years. It provided a platform for learners to develop professional competencies and recognize the relevance of preclinical knowledge in clinical contexts.

Take-Home Message:
Student-led integrative programs such as LinkLab can bridge the educational divide between preclinical and clinical training, reinforcing the continuity of medical knowledge and enhancing students' readiness for clinical practice.

ABSTRACT ID:
EPO-CUD09

Co-Designing an Integrated Medical Science and Humanities Course for Medical Students

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Aims:
Transformative medical education emphasizes nurturing students as proactive change agents with complex capabilities such as critical thinking, creativity, ethical reasoning, communication, and teamwork. To support this, a comprehensive longitudinal course integrating medical science and the humanities is needed. While the authors' institution has offered humanities courses with clinical medicine since 2004, integration with basic sciences remains limited. Recognizing the growing role of students in curriculum design, this study aimed to develop an interdisciplinary, integrated medical science and humanities course to address these gaps through a student-faculty co-design approach.

Methods:
Four medical students and six faculty members from a South Korean medical school collaborated. The students conducted a case study of 38 interdisciplinary humanities courses, while two faculty members and the students held focus group interviews with 12 volunteers. Interactive discussions took place from November 2024 to May 2025.

Results:
A student-led case study demonstrated the value of integrating the humanities into medical education. Focus group interviews confirmed that students valued such programs as enhancing critical thinking, adaptability, creativity, and communication. They emphasized the need for appropriate timing and instructional strategies, especially during the lecture-heavy basic science years. Based on these findings, the team designed a two-semester (15 hours each) integrated humanities program for third-year students, incorporating fine arts, music, literature, and sports to foster complex capabilities alongside basic science education.

Conclusion:
This study demonstrates that a student-faculty co-designed humanities course is feasible and valuable. Embedding humanities into the third-year curriculum supports key competencies during the foundational phase of medical training. Thoughtful instructional design and

timing are essential to engage students and develop future-ready physicians.

Educational and Technology

ABSTRACT ID:
EPO-EDT02

Comprehensive sex education is crucial: A review of sex education in China inspired by American sex education mode

Daihan Wu, Xuan Zhang
Shantou University, China

Aim:
To improve the quality of sex education in China and appeal to all stakeholders to commit to the improvement of sex education.

Background:
Chinese adolescents have difficulties in acquiring basic and systematic knowledge about sex and STIs (sexually transmitted infections), which increases the risk of infection, unplanned pregnancy and abortion. As comprehensive sex education began earlier in the United States and good effects were produced, China might learn from American practices of sex education when facing the current sex education predicament.

Methods:
By reviewing the literature related to sex education in the United States in recent years and reflecting on the course of sex education in the United States, we analyze the current situation of sex education in China from the perspectives of sexual behavior, abortion and STIs, and then provide the direction and methods for improvements.

Conclusion:
This paper explores the effect of sex education and the theoretical support behind it. Comprehensive sexual knowledge should be provided to adolescents to guide their sexual activities, which responds to the need to address the lack of sex education in China. Due to the current dilemma, governments, society and family should make efforts to improve the current situation of sex education.

Implication:
Sex education in China is backward, which means abstinence seems to restrict its improvement. Therefore, the energetic effect of comprehensive education on adolescents is more significant. It may shed light on the subsequent development of sex education in China.

Takeaway Message:
Dear teachers, we wrote this review aiming to attend ICME. But we are not sure if you accept review instead of researching paper. Could please tell us whether our paper can join this meeting? We will be appreciated if our paper are accept by ICME. Thank you so much.

ABSTRACT ID:
EPO-EDT13

LungLogic: Active Learning Meets Artificial Intelligence in Pulmonology Pre-Clinical Medical Education

Sruthi Shriram[1], Aaryan Patel[1], Matthew Tufts[1], Vijayan Sugumaran[2], Varna Taranikanti[1]
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Introduction:
Medical education is rapidly evolving to incorporate engaging and interactive modalities to support the needs of diverse learners. A critical skill medical students must develop early in their education is

clinical reasoning, particularly in specialties like pulmonology, where symptoms overlap across key conditions such as COPD, Asthma, and Interstitial Lung Disease, adding to complexities in diagnosis. Traditionally, clinical reasoning is introduced by observing experienced physicians manage complex cases in the hospital setting. However, understanding how to effectively rule in and rule out differential diagnoses in the pre-clinical setting can be challenging for students. This skill requires more than passive observation, as it depends on active engagement, real-time feedback, and opportunities to apply knowledge in context. Without this support, gaps in students' clinical confidence and reasoning skills can persist. To address this need, this study presents an AI-powered chatbot, called LungLogic, designed to simulate interactive learning through clinical vignettes. The chatbot shows pulmonology-focused patient scenarios in a step-by-step format with integrated questions, encouraging students to think critically through each stage of the diagnostic process. When a student selects an incorrect answer option, the chatbot responds with guiding questions that prompt the students' reflection and redirection without giving immediate answers. This method mirrors the Socratic approach commonly used in teaching, guiding students toward a deeper understanding of disease processes. By encouraging active participation and self-directed reasoning, the LungLogic chatbot-assisted learning experience reinforces classroom concepts in a memorable manner while enhancing students' clinical confidence.

Methods:

To evaluate this approach, multiple authentic clinical vignettes in pulmonary diseases, including Chronic Obstructive Pulmonary Disease (COPD) and Cystic Fibrosis, were developed and implemented within the LungLogic Platform by SS, AP, and VT. Pulmonology was chosen as the topic of interest in these cases as it was most recently taught within the OUWB Preclinical curriculum. Using dialogue flow from Google, a bot was created using user routes (utterances), intents (training phrases) actions, and other parameters. LungLogic acted as a dynamic virtual trainer to direct students in developing their thinking skills to solve the questions posed. Twenty pre-clinical medical students were recruited to interact with the chatbot across these cases. Following their participation, students completed a mixed-methods survey administered on Qualtrics designed to assess the chatbot's impact on student learning outcomes. Survey responses were anonymized to ensure participant confidentiality. The survey contained over 15 likert-style and open-ended questions, assessing for changes in students' clinical confidence, active participation in learning, and overall educational value of the tool. The quantitative data, along with narrative feedback from students, were analysed using T-tests and ANOVA tests to understand user experience and to inform further development of LungLogic as a learning tool.

Results:

Student perception of the LungLogic assisted learning experience was overwhelmingly positive, with over 80% of students reporting that the platform was easy to navigate, and appreciating the self-paced aspect of the chatbot. More than two-thirds of study participants expressed increased clinical confidence in the pulmonary pathologies explored in the case vignettes. Data from narrative responses revealed that students appreciated the integration of foundational concepts learned in the early semesters at OUWB, as well as specific learning outcomes discussed in LungLogic's responses. This study is ongoing, and further participant data is being collected and analysed to determine the statistical significance of the results. Another important finding was that students continued to engage with the chatbot when going through their process of clinical decision making, using redirecting questions from the chatbot to select new answer choices, indicating that

this experience enhanced their Higher Order Thinking (HOT) skills. Further feedback from students revealed that areas of improvement to LungLogic include updating the user interface with new colours and engaging font and graphics to enhance participant interaction.

Conclusions:
The LungLogic chatbot represents a promising innovation for developing clinical reasoning skills in preclinical medical students. By simulating real-time decision-making through guided questioning, LungLogic promotes active learning, reinforces preclinical concepts, and improves diagnostic skills in pulmonology. Students reported increased clinical confidence, engagement, and appreciation for the integration of pre-clinical coursework with clinical decision-making. Further improvements to the user interface and design of the LungLogic platform, drawing upon student narrative feedback, will enhance student engagement and participation in chatbot assisted learning. Continued development and evaluation will inform the broader applicability of chatbot-assisted learning across other organ systems in medical education.

Teaching and Learning

ABSTRACT ID:
EPF-TAL18

Bridging the Preclinical-Clinical Divide: A Student-Led Preclinical Grand Rounds for Case-Based Early Clinical Exposure

Farsai Chiewbangyang, Chitanon Chamnanwithayanont, Maneerat Chayanupatkul
Chulalongkorn University, Thailand

Background:
Medical grand rounds are typically designed for clinical students and healthcare professionals, focusing on real patient cases. To introduce preclinical students to case-based learning and clinical reasoning early in their education, we developed a student-led Preclinical Grand Rounds (PCGR) initiative. Unlike traditional case discussions, PCGR emphasizes on pathophysiology-driven analysis rather than symptom-based learning, fostering a deeper understanding of disease mechanisms. This initiative aimed to bridge the gap between preclinical and clinical training by equipping students with essential case approach and presentation skills in a peer-led environment.

Methods:
This student-led academic initiative, organized by the Student Union of Medical Students at Chulalongkorn University, implemented two formats of PCGR: (1) Discussion-Based Sessions: real-time collaborative case discussions, and (2) Presentation-Based Sessions: structured case presentations by selected students. Post-event surveys assessed participant satisfaction, clinical reasoning, and academic discussion. A two-year follow-up evaluation was conducted among former participants who had entered clerkship training to assess long-term educational impact.

Results:
In the presentation-based format, 47% (14/30) of participants responded. The majority reported satisfaction with the discussion quality and appreciated the safe, peer-supported academic setting. The mean satisfaction score was 4.71/5.00. In the discussion-based format, 46% (11/24) responded, favouring the interactive approach and reporting enhanced understanding of clinical reasoning, with a mean score of 4.55/5.00. Two-year follow-up data revealed that the initiative significantly eased the transition to clinical training (mean score 4.28/5.00) and provided the ability to apply the clinical medicine framework early in the curriculum (mean score 4.43/5.00).

Conclusion:
Student-led Preclinical Grand Rounds provided impactful early clinical exposure in a low-stakes, peer-driven environment. The initiative promoted the integration of basic science knowledge into clinical contexts and facilitated students' adjustment to clinical responsibilities.

Takeaway Message:
Student-led case-based learning can effectively enhance preclinical students' clinical reasoning, presentation skills, and confidence, making it a valuable addition to early medical education. Additionally, these initiatives can bridge the gap between preclinical and clinical education by cultivating early clinical reasoning skills and enhancing student readiness for patient care.

ABSTRACT ID:
EPF-TAL19

Undergraduate Public Health Education in China: Assessing Popularization and Future Directions

Fang Ziqi, Qiu Yingting, Zhang Anhong, Yang Minyi, Wu Chongman, Lin Xueyi, Ellen
Shantou University, China

Introduction:
Public health education (PHE) for undergraduates in China lags behind Western countries. Previous studies have demonstrated that PHE for undergraduates can improve their disease prevention and health decision-making ability. However, there is insufficient research on systematic promotion strategies for undergraduate PHE in China. This study explored a PHE promotion model by investigating knowledge levels and attitudes toward public health education among Shantou University students.

Methods:
A self-administered questionnaire was completed by 203 participants, covering public health knowledge assessment and perceptions of PHE curricula. Data were analysed using SPSS version 27.0.

Results:
The findings reveal that medical students demonstrate significantly higher accuracy in public health knowledge assessments (88.9%) than non-medical students (79.5%). Prior exposure to PHE shows a negative correlation with knowledge accuracy. However, 94.6% of participants strongly support enhanced PHE initiatives and show a marked preference for case-based teaching methods (75.9%).

Conclusion:
Participants demonstrate high public health literacy, closely associated with effective PHE, showing stronger support for innovative teaching methods. These results offer practical insights for reforming undergraduate PHE in China.

Takeaway Message:
This study highlights the need for improved public health education (PHE) among Chinese undergraduates, revealing that medical students have higher public health knowledge (88.9%) than non-medical students (79.5%). Despite this, prior exposure to PHE correlates negatively with knowledge accuracy. Importantly, 94.6% of participants strongly support enhanced PHE initiatives, with a preference for case-based teaching methods (75.9%). These findings suggest that innovative teaching approaches can significantly boost PHE effectiveness and should be considered in reforming undergraduate PHE curricula in China.

Professionalism and Ethics

ABSTRACT ID:
EPF-PAE01

The Impact of Social Media Usage in Digital Professional Identity Development of Undergraduate Medical Students

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Atma Jaya Catholic University of Indonesia, Indonesia

Background:
Social media has become a critical platform for self-expression and information exchange, significantly influencing the professional identity formation of medical students. This study explored how these students utilize social media, especially Instagram, to express themselves digitally and how their professional identities as medical students affected their digital personas.

Research Methods:
This pilot study employs a case study qualitative, involving cross-case analysis and in-depth interviews with three respondents from the second, third, and fourth cohorts who are active on Instagram. The data obtained were analysed to identify the types of content shared, the purposes of posting, and their impact on respondents' digital PI.

Results:
The findings suggest that students tend to highlight their everyday lives—such as enjoying meals and engaging in leisure activities—on social media. Their posts often focus on building relationships and expressing their sense of belonging (e.g., celebrating friends' successes or promoting their organization's events), rather than demonstrating professional skills or competence. The importance of work-life balance emerged as central theme as participants strive to present their authentic selves instead of strictly adhering to normative professional personas. However, they remain conscious of their identity as medical students and carefully consider what content to share.

Conclusion:
Medical students' current use of Instagram appears to be more oriented towards personal rather than professional aspects. In the digital era, students tend to use social media to express their authenticity rather than to demonstrate professional competencies. Given the small number of participants, the findings of this study are highly contextual and may primarily reflect the perspectives of a few undergraduate medical students in Jakarta. Nevertheless, the growing role of social media in students' lives suggests its potential to be leveraged in medical education to support PI development. An example of leveraging social media to support PI development include encouraging students to post about medical contents on their social media.

Takeaway message:
Instagram use among undergraduate medical students is currently centred on personal expression and social interaction, highlighting the role of social media in forming the identity and networking aspect of their PI in the digital world.

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