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KEYNOTE ADDRESS

Title: Transforming Higher Education – Innovation, Equity, and Sustainability Across Sectors

Speaker: Academician Professor Emerita Datuk Dr. Asma Ismail (Vice Chancellor, IMU University), Malaysia.

Synopsis: 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.

PLENARIES

PLENARY 1

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

Speaker: Professor Vishna Devi Nadarajah (Provost & CEO, Newcastle University Medicine Malaysia, Malaysia).

Synopsis: 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

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

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

Synopsis: 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

Synopsis

This plenary brings the voices from the field (students, educators, policymakers, community and healthcare practitioners) into the discussion on the global dynamics of health education. The session explores how different educational ecosystems (rural, urban, developing 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.
Speaker: Professor Wagdy Talaat. President, Egyptian Society for Medical Education, Egypt

Title: Determinants of Community-Oriented Education in health professions
Presentation Synopsis:
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.
Speaker: Professor Hossam Hamdy.
Chancellor, 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

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

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

Synopsis: This 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 overcom-ing 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.

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

Presentation Synopsis:

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.

Title: Bridging Borders: How Globalization is Shaping Accreditation in Health Professions Education

Presentation Synopsis: As globalization 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 harmonization, 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 marginalize local educational philosophies, cultural nuances, and health system priorities. There is a real risk of homogenization that may not serve the diverse needs of local populations or national healthcare goals.

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Speaker 3:

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

Title: Developing Educators for Globalised HPE: Which Competencies Matter?

Presentation Synopsis:

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

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

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.

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

Title: Incorporating Equity, Diversity, and Inclusion into Accreditation Systems

Presentation Synopsis:

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.

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

Presentation Synopsis:

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

Title: Advancing EDI in Undergraduate Medical Education

Presentation Synopsis:

Examining the role of medical education curricula in creating inclusive learning

environments and preparing healthcare professionals to serve diverse patient populations.

SYMPOSIUM 2

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

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 centers, and regional Centers 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.

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

Title: Teaching Ethics and Professionalism in HPE: Globalisation with Decolonisation

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.

Speaker 1:

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

Title: History of Teaching Ethics in the Asian Continent.

Presentation Synopsis:

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: St. Luke's Medical Center College of Medicine, William H. Quasha Memorial Philipines

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

Presentation Synopsis:

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.

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

Presentation Synopsis:

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

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

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 Profes-sions Education in a Globalized World: Strategies for Sustainability and Future Readiness,” provides a dynamic forum to explore and implement innovative strategies that build resili-ence at every level of medical education. By uniting perspectives from educators, policymak-ers, 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 environ-ments—ensuring that health professions education not only survives but thrives in a global-ized world.

Speaker 1:

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

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

Presentation Synopsis:

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 Nadim Akbar Khan: Head of the Department of Pathology, Islamic International Medical College, Riphah International University, Islamabad, Pakistan

Title: Fostering Resilient Educators and Learners in a Globalized Health Education System

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 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.

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

Presentation Synopsis:

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

Title: Global Strategies in Higher Education: Expanding Reach Through Transnational Collaboration

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: Interim Vice-Principal (International), University of Dundee, United Kingdom

Title: Expanding Global Reach, Reputation, and Impact Through TNE Collaboration

Presentation Synopsis:

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 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

Title: Making Transnational Education a Reality: The IMU Experience

Presentation Synopsis:

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

Title: From Student to Doctor: Navigating Global Pathways in HPE

Presentation Synopsis:

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.

SYMPOSIUM 5A

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

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

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

Presentation Synopsis:

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.

Speaker 2:

Professor Madiha Sajjad: Riphah International University, Pakistan

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

Presentation Synopsis:

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

Title: From Innovation to Implementation: Sustainable AI in Medical Education

Presentation Synopsis:

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

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

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

Title: Neuroplasticity Meets AI: The Future of Cognitive Learning in Medicine

Presentation Synopsis:

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

Title: The AI-Powered Classroom: Redefining Medical Training

Presentation Synopsis:

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.

Speaker 3:

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

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

Presentation Synopsis:

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. U

SYMPOSIUM 6A

Title: Sustaining Faculty Excellence in Globalization of Health Professions Education

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.

Speaker 1:

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

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

Presentation Synopsis:

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

Title: Building Global Competence: Faculty Development Strategies for an Interconnected World

Presentation Synopsis:

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.

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

Presentation Synopsis:
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

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

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

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

Presentation Synopsis:
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.

Title: Integration of Generative AI in Faculty Development

Presentation Synopsis:

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.

Speaker 3:

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

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

Presentation Synopsis:

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 EXPERTS SAY

WES 1

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

Speaker 1: Professor Mahwish Arooj: Principal, Director Department of Medical Education, Professor of Physiology, University College of Medicine & Dentistry, University of Lahore, Pakistan

Title: Bridging educational gaps for aspiring doctors in conflict zones

Presentation Synopsis:

Conflict zones pose one of the greatest challenges to health professions education. In such regions aspiring doctors face disrupted training, unsafe learning environments, and uncertain futures. These barriers not only undermine individual goals but also intensify the shortage of qualified health professionals in areas where healthcare needs are most acute. Without innovative and collaborative strategies, a generation of potential doctors, risks being lost. Present talk shares the experience of an initiative designed to bridge such educational gaps by enabling medical students to continue and complete their training in blended environments. Through institutional partnerships, advocacy, and coordinated support, students were integrated into established medical programs, provided with financial and academic assistance, and supported in adapting socially and culturally. This holistic approach ensured continuity in their education while fostering resilience and professional growth.

The outcomes have been inspiring. Several students have successfully graduated as physicians and are now contributing actively within healthcare systems, both locally and internationally. This initiative illustrates the power of cross-border collaboration in addressing global challenges in health professions education offering a replicable model for other conflict-affected or resource-constrained regions, highlighting the importance of flexibility, solidarity, and sustainable partnerships. Their achievements demonstrate that with the right support and strategic vision, disrupted medical education in conflict zones can be restored and transformed into a success story.

Speaker 2:

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

Title: Treating Sick Organizations; Leaders As Healers

Presentation Synopsis:

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

Title: Building Stronger Health Education Systems Across Borders

Speaker 1: Professor Ismail Matalka. IMU University Bukit Jalil, Kuala Lumpur**,** President, Ras Al Khaimah Medical & Health Sciences University, United Arab Emirates.

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

Presentation Synopsis:

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

Title: Pillars of Excellence: Building Resilient Health Education Systems Across Borders

Presentation Synopsis:

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 cultural-ly 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.

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

Title: Building stronger health education systems across borders through collaborative initiatives and shared resources.

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

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

Facilitator: [1]Professor Fadil Citaku,[2]Professor Yawar Hayat Khan, [3]Professor Rahila Yasmeen.
Institute: [1]Academy of Leadership Sciences Switzerland (ALSS), Switzerland, [2,3]Riphah International University, Islamabad, Pakistan.

Abstract: 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.

Objective: 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.

Description: 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

Title: Artificial Intelligence in Medical Education

Facilitators: Professor Rehan Ahmed Khan, Dr Masood Jawaid, Professor Nilesh Kumar Mitra
Institute: Riphah International University,Pakistan.

Abstract: 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.

COURSE 3

Title: Design, Facilitate, Engage: Introduction to Simulation-Based Education

Facilitators: Associate Professor Sow Chew Fei(Dean of Teaching and Learning),Associate Professor Mohammad Arshad Ikram,Ms Malini Krishna, Professor Walter Eppich, Ms Chong Pek Sam

Institution: University of Melbourne, Australia., IMU University, Malaysia.

Abstract: This dynamic full-day workshop offers healthcare professionals and educators an exciting opportunity to immerse themselves in simulation-based education (SBE) using manikins and standardised patient scenarios. The day kicks off with an insightful plenary on the principles and types of simulation, followed by a panel discussion that explores the challenges of implementing SBE in real-world settings. Participants will dive into the theory behind simulation-based learning and learn how to design impactful scenarios. The highlight of the workshop is the dynamic hands-on simulation sessions, where attendees will actively run simulations with manikins and standardised patients, gaining practical experience in facilitation and participant engagement. With a tour of the CSSC and a reflective Q&A session to wrap up, this workshop offers an engaging and interactive learning experience designed to enhance teaching methods and improve patient safety.

Objective: By the end of this workshop, participants will be equipped with a foundational understanding of simulation-based education, including how to design and execute effective simulations that align with specific learning outcomes. They will gain practical skills in running simulations, managing participant engagement, and leading meaningful debriefing sessions. Participants will also learn how to incorporate technology into simulations and leave with the tools to begin creating their own simulation scenarios to enhance learning experiences in their respective contexts.

Description: This workshop offers a hands-on approach to simulation-based education using manikins and standardised patients. Participants will actively run simulations, design scenarios, and engage in real-time facilitation. Expert-led sessions provide insights into the theory and challenges of simulation-based learning, while a tour of the CSSC and access to advanced simulation tools enhance the experience. Focused on improving patient safety, the workshop blends theory with practical application, empowering educators to implement effective simulation techniques in their own training programs. The dynamic format ensures an engaging and impactful learning experience.

PRE-CONFERENCE WORKSHOPS

PCW 1: It takes a Village: Co-Creating the Next Generation of Health Professions Education

Facilitator: Dr Mashaal Sabqat, Dr Noorul Ain, Dr Sana Iqbal

Institute: Riphah International University, Islamabad,

Abstract: 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.

Objective: 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.

Description: 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

Facilitator: Associate Professor Kye Mon Min Swe, Dr Nurul Iman Binti Abdul Jalil

Institute: Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia, Newcastle University Medicine Malaysia, Malaysia.

Abstract: 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.

Objective: 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.

Description: 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

Facilitator: Professor Ara Tekian, Dr Naveed Yousuf

Institute: [1]University of Illinois College of Medicine, Chicago, Illinois, United States,[2] Medical College, Faculty of Health Sciences, The Aga Khan University, Karachi, Pakistan.

Abstract: 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.

Objective: 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

Description: 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 4: Transforming Medical Education for Global Impact: Aligning with WHO's SDGs and NHV Objectives

Facilitator: Professor Tahira Sadiq, Dr Ayesha Aleem, Dr Komel Zulfiqar

Institute: [1,2]Bahria University College of Medicine, Islamabad, [3]ANMC ISRA university Islamabad campus, Pakistan.

Abstract: The workshop Transforming Medical Education for Global Impact: Aligning with WHO's SDGs and NHV Objectives focuses on integrating the World Health Organization's Sustainable Development Goals (SDGs) into medical education. The aim is to empower educators, healthcare professionals, and policymakers to align medical training with global health priorities, particularly SDG 3 (Good Health and Well-being). The workshop will also explore how national health priorities, as outlined in the National Health Vision (NHV), align with SDGs and inform healthcare education.

Participants will engage in case studies, examining real-world examples of medical institutions that have successfully incorporated SDGs into their curricula. Through collaborative discussions, attendees will develop frameworks for embedding SDG principles into medical education, considering regional healthcare needs and challenges. They will also explore practical strategies for integrating NHV objectives with SDGs in their local contexts.

Interactive group activities will provide participants with tools for designing curricula and training programs that reflect global health goals. The workshop will emphasize the importance of aligning national and global health priorities to foster sustainable healthcare education.

By the end of the workshop, participants will leave with actionable plans to implement SDG-focused strategies in their institutions, as well as a deeper understanding of how to create healthcare education systems that prepare future professionals to address global health challenges. Participants will also have the opportunity to network with others committed to transforming medical education and advancing healthcare globally.

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

- Understand the relevance of WHO SDGs in medical education.
- Identify gaps and challenges in current medical curricula.
- Develop a competency-based framework for integrating SDGs.
- Explore strategies for faculty training and curriculum implementation.
- Evaluate the impact of SDG integration on student competencies.

Description: This pre-conference workshop stands out by offering a unique opportunity to directly engage with the integration of the World Health Organization's Sustainable Development Goals (SDGs) into medical education. It combines global health priorities with the practical needs of healthcare education, providing participants with actionable frameworks to align their curricula with SDGs, particularly SDG 3 (Good Health and Well-being). What sets this workshop apart is its focus on both global and national health perspectives, integrating the National Health Vision (NHV) alongside SDGs, making it highly relevant to a wide range of regions and healthcare systems.

Participants will gain hands-on experience in designing innovative, sustainable education strategies through collaborative case studies and group activities. This interactive approach encourages peer learning and idea exchange, ensuring that attendees walk away with practical tools they can apply in their own institutions. Additionally, the presence of global health experts and thought leaders provides participants with direct insights into current trends, challenges, and solutions in transforming healthcare education.

The value of this workshop lies in its ability to empower healthcare educators and professionals to create education systems that address both local and global health challenges, making it an essential experience for anyone committed to shaping the future of healthcare worldwide.

PCW 5: Using Generative AI for Written Assessment and Qualitative Data - Applications, Opportunities and Concerns

Facilitator: Dr Ivan Low Cherh Chiet, Yong Loo, Dr Lee Shuh Shing , Associate Professor Chen Zhi Xiong

Institute: Yong Loo Lin School of Medicine, National University of Singapore, Singapore.

Abstract: 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.

Objective: 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.

Description: 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

Facilitator: Professor Kavitha, Associate Professor Ismail Burud Sattar,Dr Malanashita Ganeson
Institute: IMU University, Malaysia.

Abstract: 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.

Objective: 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.

Description: 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.

Facilitator: Dr Sara Shakil , Dr Kiren Habib,Dr Iffat Khanum
Institute: The Aga Khan University (AKU), Karachi,Pakistan.

Abstract: 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.

Objective: 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

Description: 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 8: Designing Immersive Learning Journeys: Building and Launching Virtual Escape Room Adventures

Facilitator: Dr Farah Azhar, Dr Nooreen Adnan.

Abstract: Gamification in education has gained significant attention as an innovative approach to engaging learners of all age groups. By integrating game mechanics into learning, educators can enhance student motivation, participation, and knowledge retention. One of the most popular and effective gamified learning strategies in health professions education is the use of Escape Rooms. These interactive, problem-solving activities offer a creative way to teach and assess healthcare professionals, making learning both immersive and enjoyable.

An Escape Room is a themed, confined environment where participants work in teams to solve puzzles, riddles, and challenges within a time limit to "escape" the room successfully. This concept has been widely adopted in postgraduate medical education, where it is used to simulate clinical challenges that healthcare professionals may encounter in real-life practice. Through team-based collaboration, decision-making, and critical thinking, escape rooms provide an engaging learning experience that promotes active participation rather than passive learning.

With advancements in technology and online learning, escape rooms have evolved into Virtual Escape Rooms (VERs). These digital adaptations provide remote, flexible, and scalable learning experiences, making them accessible to a global audience. Virtual escape rooms combine elements of augmented reality (AR), virtual reality (VR), and artificial intelligence (AI) to create highly immersive, interactive learning environments.

This workshop aims to boost interest of audience in adopting engaging learning environments like creating a virtual escape room through commonly available tools in Google workspace. This workshop will provide:

- Foundational understanding of gamification and its impact on learning.
- First-hand experience in playing a Virtual Escape Room to understand its structure and effectiveness.
- A step-by-step guide to designing a Virtual Escape Room from scratch using Google Forms, Google Slides, and other digital tools.
- Insights into how to integrate escape rooms into medical education and faculty development programs.

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

- Develop a comprehensive understanding of integrating gamification into their teaching approaches.
- Participate in an interactive virtual educational escape room experience.
- Gain the expertise to design a basic escape room suited to the needs of their students.

Description: This pre-conference workshop stands out as a unique, hands-on experience that introduces Virtual Escape Rooms (VERs) as an innovative, technology-driven approach to medical education. Unlike traditional workshops, this session goes beyond theoretical discussions by offering practical, step-by-step guidance on designing and implementing interactive, game-based learning environments.

Participants will not only experience a Virtual Escape Room firsthand but also create their own using Google Workspace tools, making it an immediately applicable skill. The workshop is designed for educators, curriculum developers, and faculty trainers who seek to enhance student engagement, critical

thinking, and problem-solving skills through immersive learning.

By integrating gamification principles with real-world medical education challenges, this workshop provides a fresh perspective on teaching and assessment strategies. The use of technology enhanced tools and digital platforms ensures that Virtual Escape Rooms are scalable, flexible, and adaptable to various learning environments, including face-to-face, hybrid, and online settings.

Participants will leave with practical resources, templates, and strategies to revolutionize their teaching methodologies, making this workshop an unmissable opportunity for those eager to innovate in health professions education.

PCW 9: Creating Virtual Patients using Large Language Models: A Hands-on Workshop

Facilitator: Professor David Cook
Institute: Mayo Clinic College of Medicine,United States America.

Abstract: 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).

Objective: By the end of the workshop, participants will 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.

Description: 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

Facilitator: Professor Abida Shaheen, Professor Fahad Azam, Dr Nosheen Kazmi
Institute: Shifa Tameer-e-Millat University, Islamabad, Pakistan.

Abstract: 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.

Objective: 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

Description: 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

Facilitator: [1]Dr Rabia Aftab, [2]Dr Shaur Sarfaraz,[3]Dr Aun Ali,[4]Professor Aliya Ahmed

Institue: [1]Aga Khan University, Pakistan.
[2]Altamash Institute of Dental Medicine, [3,4]Aga Khan University, Pakistan.

Abstract: 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.

Objective: By the end of the workshop, participants will 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.

Description: 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

Facilitator: [1]Dr Ayesha Jawwad, [2]Professor Rehan Ahmed Khan, [3]Dr Sarah Khalid

Institute:[1]IMU Bukit Jalil,[2]Riphah International University*, Pakistan,*[3]*Shalamar Medical and Dental College, Lahore, Pakistan*

Abstract: 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.

Objective: 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.

Description: 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

Facilitator: Dr Elizabeth, Dr Chaoyan Dong, Associate Professor Lee Yuen (Jenny) Wong, Dr Chao Tian Tang,Professor Thanakorn Jirasevijinda

Institute: Sengkang General Hospital, Singapore

Abstract: 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.

Objective: At the end of the workshop, participants should 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

Description: 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

Facilitator: Dr Surapaneni Krishna Mohan, Miss Jyotsna Needamangalam Balaji
Institute: Panimalar Medical College Hospital & Research Institute, India.

Abstract: 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.

Objective: 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.

Description: 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

Facilitator: Dr Khabab Abdelmoneim Elsaid Elhag, Dr Mai S. Sater

Institue: Arabian Gulf University (AGU), Bahrain.

Abstract: 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.

Objective: 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.

Description: 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.

ORAL PAPERS

Title: Feasibility of ChatGPT-Assisted Training for Ophthalmic History Taking in Optometry Education Category Educational Technology

Authors: Vijay Kumar Yelagondula, Sarannya, Rizwan.
Institute: L V Prasad Eye Institute

Abstract: History taking is essential in eye care, but peer role-play has limitations, such as limited availability, variability, and inconsistent feedback.

Objective: 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 analyzed 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.

Title: 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

Authors: Ella Yang, Lijia Xie Jiaojiao Yang Siyao
Institute: MA, Shantou University Medical College

Abstract: 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.

Aims: 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.

Title: Case Report of Development of Leadership and Communication Projects for Undergraduate Medical Students through Student Collaboration across Thailand

Author: Wiritpol Duangjan .
Institute: The Society of Medical Students of Thailand Siwakan Witayanukorn.

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.
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.

Title: Developing a Structured Framework for Enhancing Remediation in Medical Education: A Mixed-Methods Study

Authors: [1]Jaiprakash Mohanraj. Department of Human Biology, IMU University, [2]Carolina Santiago AP Robert. Department of Human Biology, IMU University [3]Shahnaj Pervin. Department of Human Biology, IMU University, Norul Hidayah Binti Mamat. IMU Centre of Education.

Abstract: 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.

Aim: 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 analyzed 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.

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.

Title: Advancing Proficiency in Laparoscopic Surgery Training: Development and validation of a Comprehensive Laparoscopic Surgery Skill Acquisition Measurement Tool using box trainers

Authors: Noor ul ain, Rehan Ahmed Khan
Institute: Riphah International University, Islamabad

Abstract: 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.

Aim: 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 ρ = 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.

Title: Do iRAT and tRAT Scores Reflect Learning Outcomes of Preclinical Medical Students?A Correlational Study.

Authors: Francisca Tjakradidjaja, Ika Alifa Suryabrata, Marita Fadhilah, Arifah Shabrina, Bisatyo Mardjikoen.

Institute: Faculty of Medicine Universitas Islam Negeri Syarif Hidayatullah

Abstract: 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.

Title: Faculty Development for Sustainable Medical Education in Crisis- Affected Regions

Authors: Kyan Thein Prof. Swe Khin-Htun. Honorary Professor, Global Health Education, UMM, Dr. Theint Shwe Yi Win. Leeds Teaching Hospitals NHS Trust, Dr Hline Yamone Aye. Trust Grade Foundation Year 2 Nottingham University Hospitals NHS trust

Abstract: 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: Recorded Teaching Sessions – Ensuring flexibility and accessibility of content through online resources. Experiential Teaching – Encouraging educators to apply feedback iteratively to refine teaching methods. 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.

Title: Zero to Doctor: A Novel Initiative To Prepare final Year Medical Students for UKMLA

Authors: Kuan Yee Tan. County Durham and Darlington NHS Foundation Trust Xuan Ning Lai. Newcastle Upon Tyne Hospitals NHS Foundation Trust Wen Min Ng. NHS Jun Jie Lim. Newcastle University Rui Xuan Cheong. Newcastle Upon Tyne Hospitals NHS Foundation Tr

Abstract: 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. However, existing evidence suggests variable preparation among students between medical schools, leading to anxiety, unpreparedness, and lack of assessment equity.

Methods: Zero to Doctor" is a novel, peer-led UKMLA teaching programme developed by final-year medical students in collaboration with practicing 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 programs and evaluating their long-term impact on clinical competencies and UKMLA outcomes.

Title: Development Of a Questionnaire to Measure Satisfaction Between Deaf Sign Language Users And Doctors

Authors: Sher Lynn Tan, Sabrina Humaira Binti Khairul Riza, Ming Hwee Christine, Tay, Ismail Abdul Sattar Burud, Nabeel Ibraheem Jaafar, Zubaidah Hamid, Suan Phaik, Lucy Lim Dorothy D'Anne, Aastha Dhingra, Ribha Sood, Kulthum Burud, Aqil Daher, Suneet Sood

Institute: Hospital Klang, Ministry of information, India, JUPEBIM, Monash University, IMU University, Khoo.

Abstract: 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.

Aim: 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 and is a robust tool for measuring satisfaction during Deaf-doctor communications.

Title: Perceptions of Medical Students About the Use of AI in Assessment and Feedback

Authors: Prof. Saadia Sultana, Prof. Muhammad Nadim Akbar Khan

Institute: IIMC- Riphah International University, Islamabad.

Abstract: 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.

Aim: 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.

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

Authors: Snigdha, Jhansi Priyanka Poosa . Optometry Educator, BHIOVS, L V Prasad Eye Institute Shobha Mocherla . Assistant Director of Education, Standard Chartered - LVPEI Academy for Eye Care Education Chodup Thinley . Optometry Educator, BHIOVS, L V Prasad Eye Inst, **Jhansi Priyanka Poosa** (Optometry Educator, BHIOVS, L V Prasad Eye Institute), **Snigdha** (Network Associate Director, Standard Chartered - LVPEI Academy for Eye Care Education), **Ruby Kala Prakasam** (Academic Researcher, Standard Chartered - LVPEI Academy for Eye Care Education), **Vijay Kumar Yelagondula** (Registrar, BLSO, LV Prasad Eye Institute), **Shobha Mocherla** (Assistant Director of Education, Standard Chartered - LVPEI Academy for Eye Care Education), **Avinash Pathengay** (Network Director, Standard Chartered - LVPEI Academy for Eye Care Education), and **Chodup Thinley** (Optometry Educator, BHIOVS, L V Prasad Eye Institute).

Abstract:

Aim: 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 utilized 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.

Title: A Case study of SMST Academic Network: Enhancing Student and Educator Engagement on Well-Being Through Nationwide Collaboration Across Thai Medical Schools Category Stakeholder Engagement

Authors: Theerayuwat Sirirak, Siwakan Witayanukorn, Natwadi Karnjana-o-past, Thutthum Kiatpathomchai, Supakit Kiewprasert, Sanhawat Sonprayad, Wiritpol Duangjan, Kittituch Wisala, Kittinut Banchajarurat, Natdanai Prachnakorn, Jidapa Pinkunakorn , Junyalak Namnuch .

Institute: The Society of Medical Students of Thailand

Abstract: 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.

Aim: 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.

Result: 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.

Conclusion: 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.

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

Authors: Muhammad Shahid Shamim, Nadeem Zubairi

Institute: Aga Khan University Pakistan, King Abdulaziz University, Jeddah.

Abstract: 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.

Aim: 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.

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

Authors: Zeelaf Shahid, Soobia Saeed

Institute: Jinnah Medical and Dental College, Karachi Pakistan. Taylor's University, Malaysia.

Abstract: 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 analyzed using SPSS version 25, utilizing paired t-tests to compare pre- and post-intervention results and independent t-tests for assessing demographic relationships. Results

Result: 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 favored 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.

Title: Global Research Agenda in Health Professions Education: A Scoping Review

Authors: Ahsan Sethi, QU Health, Qatar University Mustapha Mohammed . QU Health, Qatar University Hany Atwa . Arabian Gulf University, BahrainAshley A Dennis .Billings Clinic, United States

Abstract: Research agenda exercises in Health Professions Education (HPE) have been conducted across institutions, but no consolidated global agenda exists for international adaptation.

Aim: 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.

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

Authors: Sylvia Sari, Faculty of Medicine Jenderal Achmad Yani Universitas, IndonesiaArchie Reiniatie, Universiti Pertahanan Nasional Malaysia Maizatullifah Miskan . Universiti Pertahanan Nasional Malaysia Siska Telly Pratiwi. Universitas Jenderal A. Yani - Indonesia Fitriardi Sejati . Universitas

Abstract: 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.

Aim: This study aims to explore which cultural dimensions influence students' acceptance of AI implementation in medical education, as reported in existing literature.

Method: 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.

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

Authors: Urooj Saleem, Muhamad Saiful Bahri Yusoff, Intan Idiana Hassan

Institute: Peshawar Medical College, Riphah International University, Univeristy Sains Malaysia.

Abstract: 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.

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 analyzed 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.

Title: Exploring the potential of ChatGPT as Virtual OSCE Facilitator: A Pilot Study

Authors: Urooj Salee, Peshawar Medical College, Riphah International Universitas Intan Idiana Hassa. univeristy sains Malaysia Muhamad Saiful Bahri Yusoff. univeristy sains malaysia

Abstract: 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.

Aim: 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 analyzed using descriptive statistics and thematic analysis.

Results: Initial 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.

Title: Effect Of Feedback-Integrated Reflection, On Deep Learning Of Undergraduate Medical Students In a Clinical Setting

Authors: Madiha Sajjad, Zainab Maqsood, Raheela Yasmin

Institute: Rawalpindi Medical University. Riphah International University, Islamabad

Abstract: 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.

Aim: 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.

Title: Perceptions About Artificial Intelligence Tools for Scientific Writing Among Eye Health Professionals

Authors: Suman Sahu, Ruby Kala Prakasham, Ananya Dutta

Institute: LV Prasad Eye Institute.

Abstract: 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.

Aim: This study focused on the awareness, perceptions, and preparedness of eye health professionals in adopting such tools for scientific manuscript development.

Method: 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 scienctific 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.

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

Authors: Mashaal Sabqat, Noor ul Ain, Sana Iqbal, Rehan Ahmed Khan.
Institute: Riphah International University, Islamabad.

Abstract: The rapid expansion of artificial intelligence (AI) and machine learning has transformed industries, including education and healthcare. In medical education, AI is increasingly used for analytical problem-solving, personalized learning and clinical decision-making. However, growing reliance on AI may contribute to metacognitive laziness, where students engage less in critical thinking and self-regulation.

Aim: This study examines the relationship extent of AI reliance in medical students and its relationship with metacognitive laziness.

Methods: The study involved medical and dental students, with data collected via a four-point Likert scale-based questionnaire. Content validity of the questionnaire was ensured by expert ratings on relevance and clarity, and reliability was determined using Cronbach's alpha. Descriptive statistics with median response category were used to describe students' AI reliance, and Spearman's rank correlation was used to analyze the relationship between AI reliance and metacognitive laziness, with a significance level set at $p = 0.05$.

Results: The initial 47-item questionnaire was refined to 36 items, with an S-CVI/Ave of 0.88 and a CCA of 90%. Cronbach's alpha was 0.936, indicating excellent reliability. The survey revealed that 74.4% of students relied on AI for learning, with 61.3% reporting decreased motivation for independent analysis and 62.4% expressing concerns about its impact on future patient care. Spearman's rank correlation showed a moderate positive relationship ($\rho = 0.621$, $p = 0.000$).

Conclusion: The increasing reliance on AI among medical students is associated with metacognitive laziness, emphasizing the need for balanced AI integration to promote independent learning and critical thinking.

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

Authors: Sabeen Saad, Saad Ahmed, Nasir Ayyub
Institute: Shifa International Hospital, Islamabad

Abstract: 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

Aim: 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.

Title: 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.

Authors: Dr. Mahrukh
Institute: University of Health Sciences, Lahore

Abstract: 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.

Aim: 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 analyzed 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.

Title: Building The Foundation for Success: Experience of Creating an Immersive Ophthalmology Fellowship Induction Program at An Advanced Tertiary Eye Care Institute Category Curriculum Design

Authors: Anubha Rathi, Snigdha Snigdha, Associate Director of Education, L V Prasad Eye Institute Avinash Pathengay . Director of Education, L V Prasad Eye InstituteShefali Rajesh Pandey. Assistant Administrator, Education, L V Prasad Eye Institute Sethumathi Gouragari

Abstract: 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,

Aim: 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 were appropriately analysed.

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.

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

Authors: Haerani Rasyid, Asty Amalia Nurhadi. Department of Medical Education, Faculty of Medicine, Irawan Yusuf. Department of Physiology, Faculty of Medicine, Hasanuddin University.

Abstract: 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.

Title: 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.

Authors: Dr Akanksha B Prajapati.
Institute: GCSMCH & RC, India

Abstract: 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.

Title: Integrating Hands-on, Heads-on, and Hearts-on Learning: A Novel Framework to Transform Postgraduate Medical Education

Authors: Divya Natarajan, Anubha Rathi, Hyderabad Aditya Kapoor, Vijayawada, Kavya M Bejjanki, Cuddapah Avinash Pathengay, Visakhapatnam.
Institute: L V Prasad Eye Institute

Abstract: Conventional postgraduate medical education in most countries prioritizes greatly on theoretical learning, with very less 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.

Title: IMU University e-Library License effectiveness: A quantitative study Category Teaching and Learning

Authors: Razman Shah Mohd Razali Nurul Hafizah Jumat
Institute: IMU University

Abstract: Supporting the university's digital initiative and the library's commitment to develop skillful 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.

Aim: This study aimed to explore the effectiveness of the course in using library resources effectively towards participants through the 11 modules offered.

Method: 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 analyzed.

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**.**

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

Authors: Dr. Tayyeba Iftikhar Mirza, Prof. Dr. Irfan Shukr

Institute: Foundation University Islamabad.

Abstract: 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.

Aim: 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.

Title: Improving accuracy of ventilator parameter recording among respiratory therapy interns through image card-based teaching

Authors: Ling-Hui Chang .

Institute: Division of Respiratory Therapy**,** Chia-Yi Christian Hospital

Abstract: During the COVID-19 pandemic, many educational institutions adopted remote teaching, which may have impeded the learning of ventilator operation.
Aim: 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.
Method: 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.
Result: 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.

Title: Perception of a Peer Mentoring Program among Medical Students in a Malaysian Medical School: A Qualitative Study

Authors: Brinnell Annette Caszo, IMU University Heethal Jaiprkash . Pathology and Pharmacology, SOM, IMU University Sushela Devi A/P Somanath. Pathology and Pharmacology, SOM, IMU University Vigneshkumar Rishaab Ananth. IMU University

Abstract: 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.
Aim: Our study aimed to explore the perceptions of both peer tutors and tutees on the peer mentoring program.
Method: 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.

Title: Widening Access To Medical Education: A Realist Evaluation Of Selection Pathways

Authors: Sandra Carr, Rebecca Olson, Emma Bartle, Alexia Pena Vargus, Philip Roberts, Lise Mogensen

Institute: University of Queensland, University of Western Australia. University of Adelaide, University of Canberra, Western Sydney University.

Abstract: 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.

Method: 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.

Title: Satisfaction With Interactive Medical Microlearning Videos Among Young Learners: Construction and Piloting of a Questionnaire

Authors: Ismail Burud, IMU University,

Malaysia Suneet Sood . Department of Surgery, School of Medicine, IMU University, Malaysia Mohammed Arshad Ikram. Department of Surgery, School of Medicine, IMU University, Malaysia

Abstract. 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.

Method: 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.

Title: Exploring The Experiences Of Content Experts With Item Vetting During Item Bank Development

Authors: Anbreen Aziz, Tayyeba Iftikhar Mirza, Faiza Kiran, Mashaal Sabqat.

Institute: Riphah International University, Islamabad. Shifa Tameer e Millat University, Islamabad, Pakistan. Foundation University Medical College, HBS Medical and Dental College, Islamabad.

Abstract: 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.

Method: 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.

Title: Development, Validation and Evaluation of An Instrument That Measures Institutional Contributors Of Medical Students' Resilience

Authors: Syeda Rubaba Azim. University Sain Malaysia (PhD scholar), Dow University of Health Sciences.

Abstract: 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.

Aim: 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.

Method: 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.

Title: Evaluating Team Based Learning as An Effective Low-Stake Assessment Tool In Undergraduate Medical Education

Authors: Prof. Dr. Shazia Ali, Head of Department Physiology, Dr. Ruqaiyya Nazir, Assistant professor, Physiology. Dr. Humna Maryam Demonstrator, Physiology.

Institute: Riphah International University, Islamabad

Abstract: 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 analyzed 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.

Title: Global Healthcare Innovation – Teaching Simulation without a Lab Using AI

Authors: Samina Malik UOL, Dundee Jabeen Fayyaz. University of Toronto

Abstract: 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.

Aim: 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.

Method: 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.

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

Authors: Mohammed Madadin, IAU Stella Howden, Heriot-Watt University, University of Dundee

Abstract: 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.

Aim: 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.

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.

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

Authors: Tzu-Hung Liu . Wai-Kit Ng
Institute: Taipei Tzu Chi Hospital, Taiwan

Abstract: 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.

Title: **Speaking the Same Language? Exploring Stakeholders' Perspectives on Assessing Medical Students' Communication Skills in OSCEs**

Authors: Ranila Ishani Sirisinghe, Pathiyil Ravi Shankar. Sow Chew Fei, Liau Jia Li, Manimagalai Krishnan, Ramanathan Subramanian, Chandrashekhar T Sreeramareddy
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Abstract: 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.

Title: Scientific Olympiad Participation and Its Influence on the Development of Undergraduate Medical Students' Professional Identity

Authors: Jonathan Bryan Lee, SMHS Atma Jaya Catholic University of Indonesia Natalia Puspadewi. School of Medicine and Health Sciences Atmajaya Catholic University of IndonesiaVeronica Dwi Jani Juliawati . School of Medicine and Health Sciences Atmajaya Catholic University of Indonesia

Abstract: 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.

Aim: 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 analyzed 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.

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

Authors: Faiza Kiran, Saira Akhlaq, Shazia Irum, Muhammad Iqbal Khan

Institute: Shifa School of Health Professions Education, STMU. Islamabad

Abstract: 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.

Aim: 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.

Title: SMST Academic Relationship Camp : Key Features Among Thailand's Medical School Educational Systems in Domain with Examples Referred from Student Union Representatives' Aspects

Authors: Thutthum Kiatpathomchai. The

Society of Medical Students of Thailand Theerayuwat Sirirak. The Society of Medical Students of Thailand Natpassorn Homchanderm. The Society of Medical Students of Thailand Pawityada Meyprakhon . The Society of Medical

Abstract: 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.

Aim: This camp aims to promote academic development and facilitate institutional exchange on Thailand's medical curricula by identifying and analyzing 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:

- Student Evaluation System
- Research Support System
- Academic Opportunity
- Feedback System

Results: 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.

Conclusion: 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.

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

Authors: Sarah Khalid

Institute: Shalamar Medical and Dental College, Lahore

Abstract: 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.

Aim: 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, analyzed 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.

Title: Transforming Ophthalmology Fellowship Training: From Passive to Active Learning

Authors: Aditya Kapoor, Avinash Pathengay, Suman Sahu

Institute: L V Prasad Eye Institute

Abstract: 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,

Aim: 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 video, 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: 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: Faculty workload – mitigated via training and shared resources Resistance to change – addressed by gradual

rollout Time constraints – handled via blended/self-directed models Variable participation – improved through gamification and peer support

Active learning proved to be a powerful, sustainable model for ophthalmology education.

Title: Speak My Gen Z Language: Communication Manual Rewired for Future Global Healthcare Professionals

Authors: Jagmohni Kaur Sidhu A/P Jagir Singh, Ranila Ishani Sirisinghe, Liau Jia Li

Institute: IMU University, Mcouns

Abstract: 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-centered resource tailored for Generation Z, integrating global health perspectives, core competencies, and modern learning styles.

Aim: 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.

Title: Active And Direct Patient Participation in Health Professions Education: A Narrative Overview Of Literature From The Global South

Authors: Ayesha Jawwad. Ulster University Zareen Zaidi. George Washington University Subha Ramani. Harvard University Herman Popeijus. Maastricht University Marjan Govaerts Maastricht University

Abstract: 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.

Aim: 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.

Title: Program Evaluation of Online Versus Hybrid Teaching Using CIPP Model At Private Medical School Lahore, Pakistan

Authors: Prof Dr Anila Jaleel, Dr Saleem Pervaiz Iqbal, Dr Khalid Mahmood Cheema, Prof Dr Zahid Bashir.

Institute: Shalamar Medical and Dental College Lahore Pakistan.

Abstract: Evaluating undergraduate medical curricula is essential for ensuring their effectiveness and facilitating continuous improvement.

Aim: 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 analyzed 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.

Conclusion: 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.

Title: Testing the Test: Which Assessment Instruments Differentiate Deep and Surface

Authors Mohammed Ismail-Khan, Northern Gynaecological Oncology Centre, UKRatna Kumari-Nitta. Shadan Institute of Medical Sciences, Teaching Hospital and Research Centre Mona MI Abdalla. School of Medicine, IMU University Shaik Karimuddin-Abdullah. Shadan Institute of Medical Sciences, Teaching Hospital and Research Centre

Abstract: 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.

Aim: 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.

Title: Perceptions of Dental Students on the Use of Mock Debates to Enhance Their Oral Communication Skills: An Exploratory Qualitative Study

Authors: Sana Iqbal.

Institute: Riphah International University, Islamabad

Abstract: 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.

Aim: 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 analyzed 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.

Title: Enhancing Student Learning in Small Group Anatomy Teaching: Comparison of Pre- and Post- Session Assessment

Authors: Farida Hlaing Hussan, IMU University Anupa Sivakumar. Human Biology Department, School of Medicine, IMU University Thirupathi rao Vishnumukkala . Human Biology Department, School of Medicine, IMU University Nilesh Kumar Mitra. Human Biology Department, School of Medicine, IMU University

Abstract: 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.

Aim: 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 analyzed 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 posttest 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.

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

Author: Ho Ket Li, Er Hui Meng.
Institute: IMU University.

Abstract: 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 modeling the relationship between student ability and response probability.

Aim: 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 recognized 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.

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

Authors: Reynan Hernandez, Ateneo School of Medicine and Public Health Jeremie Bartelheimer Ateneo School of Medicine and Public Health Kate Wad-asen. Ateneo School of Medicine and Public Health Jake Batuhan. Ateneo School of Medicine and Public Health Michael Cootauco. Ateneo School of Medicine and Public Health Fl.

Abstract: 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.

Aim: 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.

Title: Enhancing Reflective Writing in Medical Students: A Comparative Study of Feedback and Guiding Questions.

Authors Institute: Shruti P Hegde. Manipal Tata medical College, Manipal academy of Higher Education (MAHE) Vijay K Dayanidhi. Manipal Tata medical College, Manipal academy of Higher Education (MAHE)

Abstract: 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.

Aim: 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 clearence. 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 decrasing 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.

Title: Students' Empowerment in Developing a Legal and Fiqhi Based Innovative Health Care Ethics & Law Course

Authors: Marwa Fawzi, Allrayyan Medical College Tayseer Mansour Taibah University, College of Medicine, Family and Community Medicine and Medical Education DepSC Ayat Abdallah Family and Community Medicine and Medical Education Department, College of Medicine, Taibah Universi Hesham Abdelsalam

Abstract: 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.

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

Authors: Maryam Fatima. Shalamar Medical and Dental College, Javeria Noor. Shalamar Medical and Dental College, Aizaz Ahmad Khan. Shalamar Medical and Dental College Sarah Khalid. Shalamar Medical and Dental College

Abstract: 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.

Aim: 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.

Title: Strengthening Stakeholder Support: Exploring Parental Stress and Coping in Hearing Impaired and Autistic Populations

Author: Naima Farooq.
Institute: Riphah International University, Islamabad.

Abstract: Effectively developing interventions for children with exceptional needs requires the involvement of stakeholders, especially parents. Service providers, physicians, educators, and legislators who engage with families of children with disabilities might benefit greatly from an understanding of the stress levels and coping strategies of parents.

Aim: 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.

Title: **Ready, Set, Practicum: Designing a Pre-Practicum Bootcamp for Clinical Psychology Trainees**

Authors: Serena IN, Yaw Dong LAW, Nur Arfah Zaini, Felicia Ilona NAINGGOLAN.
Institute: IMU University

Abstract 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.

Aim: 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.

Method: The bootcamp featured simulated intake sessions using trained actors as clients with mental health presentations. Trainees practiced clinical interviewing and history taking, followed by personalized feedback from clinical supervisors. Additionally, they engaged in hands-on practice of scoring and interpreting cognitive and behavioral assessments using anonymized client data as a refresher of core psychometric skills. The program was strategically designed to optimize limited resources while accommodating a large cohort.

Results: 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 Behavioral Therapy which is the main therapeutic approach of the program.

Conclusion: 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.

Title: Implementation of Team Based Learning (TBL) in Preclinical Phase Medical Students: Lesson Learned and Future Directions

Authors: Ika Alifa Suryabrata, Faculty of Medicine Universitas Islam Negeri Syarif, Hidayatullah Jakarta, Francisca A Tjakradidjaja. Faculty of Medicine Universitas Islam Negeri Syarif Hidayatullah, Jakarta, Arifah Shabrina. Faculty of Medicine Universitas Islam.
Institute: Faculty of Medicine Universitas Islam.

Abstract: 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.

Aim: 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

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.

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

Authors: Salina Ercan, Yeditepe University Serdar Özdemir. Yeditepe University Faculty of Medicine Güldal İzbırak. Yeditepe University Faculty of Medicine Elif Çiğdem Keleş. Yeditepe University Faculty of Medicine Vildan Öztürk. Yeditepe University Faculty of Medicine Ece Genç. Yeditepe

Abstract: 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 analyzed 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 behavioral 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.

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

Authors: Dr. Rasha Eldeeb, Gulf Medical University (GMU), Ramya Rathan. Gulf Medical

University, Jhancy Malay. Datta Meghe Institute of Higher Education & Amp; Research.
Institute: Ramya Rathan. Gulf Medical University

Abstract 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.

Method: 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.

Conclusion: 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.

Title: Developments in E-Learning in Undergraduate Otolaryngology Education During the COVID-19 Pandemic: A Scoping Review

Authors: Kallyan K Debnath.
Institute: AIMST University

Abstract: 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.

Aim: 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.

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

Authors: Vijay Kautilya Dayanidhi. Manipal Tata Medical college, Jamshedpur-Manipal Academy of Higher Education (MAHE), Shruti Prabhat Hegde. Manipal Tata Medical college, Jamshedpur- Manipal Academy of Higher Education (MAHE).

Abstract: 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.

Aim: 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 clearence. 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 decrasing 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.

Title: **Enhancing Nursing Students' Clinical Reasoning and Self-Directed Learning through Blended Flipped Learning in Physical Assessment Education**

Author: CHIN-TING LEE
Institute: National Yang Ming Chiao Tung University

Abstract: 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.

Aim: 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.

Conclusion: Blended flipped learning effectively enhances clinical reasoning and self-directed learning in nursing students. With instructor feedback, it fosters motivation and lifelong learning.

Title: Equity Challenges in Curriculum Entry Points: A National Review of Portfolio-Based Admissions to Thai Medical Schools

Authors: Farsai Chiewbangyang
Institute: Chulalongkorn University.

Abstract: Holistic admissions frameworks, including portfolio-based assessment, have been increasingly adopted in medical education worldwide. These approaches aim to recognize applicants' academic potential alongside personal attributes, extracurricular engagement, and social commitment. In Thailand, portfolio-based admissions have become institutionalized across all public medical faculties. However, the extent to which such practices promote or hinder equitable access to medical education remains underexplored.

Aim: 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 standardized tests, additional standardized 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.

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

Authors; Chiao Jo Ho. College of Nursing, National Yang Ming Chiao Tung University

Institute: National Yang Ming Chiao Tung University

Abstract: 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.

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.

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.

Title: Conceptual Framework of Rural-Streamed Medical Students' Professional Identity Of General Practitioners: A Focus Group Study

Authors: Yilin Chen, Peixin Lin, Hengshun Du, Jiaxin Wu, Kai Lin.

Institute: Shantou University of Medical College.

Abstract: 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 analyzed 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 emphasized 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 emphasize the need to address systemic barriers and prioritize educational interventions to strengthen China's primary care workforce.

Title: Social Accountability in Action: Service-Learning Initiatives in Pakistan's Healthcare

Author: Rukhsana Ayub

Institute: National University of Medical Sciences, Pakistan.

Abstract: 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 hemoglobin 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 hemoglobin 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.

Title: The Impact of Global Health Partnerships on Cambodia's Health Science Education.

Authors: Virak Sorn, Bunnarith Ay, Sreyhak Sruong, Sokchan Lorn.

Institute: University of Puthisastra

Abstract: 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.

Aim: 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.

Results: 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.

Title: Pitfalls in Medical Education and Evolving Strategies

Author: Htoo Aung Paing, NUH NHSProf. Swe Khin-Htun. Honorary Professor,Global Health Education, UMM Dr. Thiri Thiri. Clinical neurophysiology Calderdale and Huddersfield NHS Trust Dr Kaung Nyunt Lwin. Trust Grade Frailty Registrar ST3 QMC

Abstract: 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.

Title: Evaluation of Three-Dimensional Printed Models Compared to Plastic Models in Enhancing Anatomy Performance Among Health Science Students

Authors: Htar Htar Aung, International Medical University MalaysiaNilesh Kumar Mitra. Anatomy discipline, Human Biology Division, SOM, IMU University, Kuala Lumpur Thirupathirao Vishnumukkala. Anatomy discipline, Human Biology Division, SOM, IMU University, Kuala LumpurSofiah Hanis Binti Ahmad Hisham. Department

Abstract: 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.

Aim: 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: 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.

Title: Status Of Teaching and Assessment Practices of Ethics and Professionalism In Undergraduate Dental Institutes: A Pan-Pakistan Survey

Authors: Sanaa Masood Aslam, Zuhayr Arif Jabbar, Ahsan Malik.

Institute: Foundation University College of Dentistry and Hospital, Islamabad

Abstract: 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.

Method: 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.

Title: Enhancing the Student Evaluation of Teaching (SET) Through Nursing Students' Lenses: A Generic Qualitative Inquiry

Authors: Saba Asim, Riphah International University, Prof. Dr. Abel. J. Pienaar . Professor and Deputy Provost Academic Services, South Africa, Dr. Waqas Rabbani, Shifa College of Medicine, Shifa Tameer-e-Millat University, Islamabad, Pakistan. Dr. Khauhelo Mahlatsi . Doctor of Nursing Practice, Research.

Institute: Riphah International University, Shifa College of Medicine, Shifa Tameer-e-Millat University, Islamabad, Pakistan, Doctor of Nursing Practice, Research.

Abstract: 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 analyzed 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.

Title: **Ideological Influence in Healthcare Education: Balancing Social Accountability and Scientific Objectivity**

Authors: Javed Ashraf, Eisha Ali, Hoor Fatima Butt, Nabihah Fakher, Zaib-un-Nisa. Afeefa Asim.

Institute: Riphah International University, Islamabad

Abstract: 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 visualizations 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.

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

Authors Dr. Sarah Amin, Dr. Sadaf Saleem.

Institute: NUST School of Health Sciences, Islamabad

Abstract: 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.

Aim: 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.

Title: Professional Identity Formation in Undergraduate Medical Education in the Hierarchical and Collectivist Culture: A Scoping Review

Authors: Bayu Alfandy, Indonesian Doctor Internship Program Nashiha Firta Prakasa. Independent Researcher, Riau, Indonesia Kevlar Azri Ghurafa. Independent Researcher, Jawa Barat, Indonesia Lily Aulia Salsabila. Undergraduate Medical Program, Faculty of Medicine, Universitas Pelita Harapan, Banten, Indonesia

Abstract: 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 believe 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 analyze the influence of hierarchical and collectivist cultures on PIF.

Method: 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.

Results: 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).

Conclusion: 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.

Title: An in-depth exploration of innovative teaching and learning strategies: transforming educational practices for enhanced student success

Authors: Itedal Abdelraheem Mohamed Ahmed.

Institute: Najran University

Abstract: 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.

Aim: To identify key teaching and learning strategies that foster student success. To analyze 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 analyzed.

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- centered approaches to foster better learning outcomes. Recommendations for successful implementation include professional development for teachers and an emphasis on technology integration in the classroom.

Title: Globalizing Immersive Learning: Students' Perspectives on Case-Based Integrated Learning (CBIL) in Undergraduate Anesthesiology Rotation

Authors: Dr Rabia Aftab, Dr Saima Rashid, Dr Aliya Ahmed, Dr Rahila Ali

Institute: Aga Khan University, Karachi

Abstract: 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 anesthesiology rotation to promote clinical reasoning, critical thinking, and active learning.

Aim: 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 anesthesiology 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 anesthesiology that often lack traditional teaching time.

Title: Evaluating the Impact of a Faculty Development Workshop on Case Cluster MCQs

Authors: Tahira Sadiq

Institute: Bahria University College of Medicine, Islamabad

Abstract: Faculty development plays a key role in enhancing academic quality in medical education. While most institutions train faculty to conduct PBL sessions, training on how to assess PBL content remains limited. Case Cluster MCQs (CC MCQs) are considered more effective than standalone MCQs for this purpose. However, faculty in integrated medical curricula often lack this skill.

Aim: This study aims to evaluate the impact of a faculty development workshop on CC MCQ construction using the Kirkpatrick Model at three levels: reaction, learning, and behavior.

Method: Faculty development workshop was highly valued by faculty members, and its effectiveness was sustained over a longer period of time. It was remarkable that a positive change in the attitude of faculty in terms of the importance of 'CC MCQs for assessing PBLs' took place as a result of a single day workshop. Most of the faculty members are not only convinced but ready to construct quality CC MCQs for upcoming exams reduce the word count Results:

Results: were measured on the first three levels of Kirkpatrick. Satisfaction (Reaction) after workshop (n=75) was 93.3 % (0.00). Improvement in Learning of knowledge about CC MCQs was from mean pre-test 3.53 (0.00) to mean post-test (0.00). Learning of skill; construction of CC MCQ was improved from mean pre-test 1 (0.024) to mean post-test 19.3 (0.00). Impact (n= 31) of CC MCQ after 3-6 months at the workplace was measured and was significant (0.00).

Conclusions: The faculty development workshop was highly appreciated and showed lasting impact. A notable positive shift in

faculty attitude toward the importance of CC MCQs for assessing PBLs emerged from just a one-day session. Most participants felt confident and motivated to construct quality CC MCQs for future examinations.

Title: Impact of Counselling Cell Model for Habitual failures by exploring the reasons behind choosing the medical profession

Authors: Zeelaf Shahid, Soobia Saeed.
Institute: Jinnah Medical and Dental College, Taylor's University, Malaysia

Abstract: Traditional counselling highlights a serious weakness in the support networks pressing need for creative, data-driven solutions offering focused and efficient interventions.
Aim: An entirely novel Counselling Cell Model is breakthrough to lower dropout rates while simultaneously improving academic performance and general student well-being.
Method: An academic interventional study was meticulously carried out with an emphasis on MBBS students enrolled from 2019 to 2024 at Jinnah Medical and Dental College, Karachi. Pakistan with Purposive sampling. Self-administered questionnaires were given to "cases" (students who had at least one professional test score below 50%) and "controls" (students who routinely scored above 50%). Information was gathered, including demographics, academic history, the reasons behind the initial decision to pursue medicine, and several stress indicators. Struggling students participated in 30- to 45-minute counseling sessions and grouped according to motives, performance patterns, and other relevant criteria.
Results: AI-driven analysis identifies critical areas where struggling students required targeted support, particularly in career guidance and mental health interventions. Notably, students nearing the completion of their program demonstrated a higher willingness to accept recommendations and actively work towards improving their performance.
Potential Educational Impact: Future medical professionals will be both academically and mentally strong because of AI's capacity to recognize at-risk students early, provide individualized career guidance, and help with stress management guiding institutional policy, staff training, and curriculum creation.
Feasibility of Innovation: AI-based Counseling Cell Model may be successfully integrated into existing educational infrastructures using data sources (academic records, surveys), statistical software (SPSS-23) and AI algorithm for analysis to enhance student support services without major modifications to current systems.
Conclusion: AI into counseling presents a revolutionary chance to successfully tackle the intricate psychological and motivational issues over academic careers increasing student achievement, mental health outcomes, and medical staff that is more prepared and resilient.

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

Authors: Gohar Ali, Sumreena Mansoor, Saira Akhlaq, and Sabeen Saad.

Introduction: 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.
Background: Limited literature explores integrated curricula in undergraduate nursing education, particularly regarding faculty knowledge and attitudes.

Objective: This mixed-methods 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 through a cross-sectional survey and the challenges faced in day-to-day practice that impede the implementation of an integrated curriculum across three private nursing colleges in Karachi, Pakistan.

Methods: A mixed-methods study was conducted using a pragmatic approach. A newly developed questionnaire was piloted and validated with 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.

Results: 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 ($p<0.001$). The 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.

Conclusion: Knowledge about the integrated curriculum and the attitude of the faculty to implement it is present. However, the challenges need to be addressed for an appropriate transition to an integrated curriculum in nursing undergraduate programs.

Keywords: Integrated curriculum, nursing faculty, Bachelor of Science in Nursing, faculty knowledge, and faculty attitude.

Title: Interprofessional Education Between Nursing and Traditional Chinese Medicine

Authors: Wei Shan Tan. IMU University, Sow Chew Fei. Clinical Skills Department, IMU University, Freya Tang Sin Wei. Chinese Medicine, IMU University, Goh Lay Khim . Nursing Science, IMU University, Nurul Rimadhayanti Binti Hamzah. Clinical Skills & Simulation Centre, IMU University.

Institute: IMU University

Abstract: 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 analyzed.

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.

Title: Deconstructing and Teaching Skin Suturing

Authors David J. O'Regan. MERDU Faculty of Medicine UM

Abstract: 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.

Method: 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.

Title: Beyond Testing: Team-Based Learning for Deeper Assessment as Learning and Alignment with Programmatic Assessment Principles

Authors: Abdul Ahad Shaikh Shaikh, Dr. Abdul Jabar Rasool, Dr. Abdul Samad Shaikh.

Institute: College of Medicine, Alfaisal University, Riyadh, Saudi Arabia.

Abstract: 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.

Aim: 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 analyzed 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-centered approach. This alignment not only enhances feedback and learner engagement but also supports the continuous development of competencies essential for clinical practice.

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

Authors: Nayyab Zehra Zehra, Dr Amber Rehman, Dr. Muhammad Arslan, Dr. Aqsa Rasool, Prof Dr. Tahira Sadiq.

Institute: Bahria University College of Medicine, Islamabad

Abstract: 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.

Aim: 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.

Method: A cross-sectional design will be employed, utilizing the DREEM questionnaire to gather data from undergraduate medical students.

Result: 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.

Title: Evaluating the Educational Impact of an AI-Powered Totipotent Interactive Patient Simulator (TIPS)

Author: O'Malley, A.S, Duggal, S., Gordon, I., Hughes, A., Murad, S., Wang, X.
Institute: University of St Andrews.

Abstract: 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 behavior 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.

Aim: 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.

Result: 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 summarize content, clarify complex topics, and organize 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.

Conclusion: 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.

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

Author: O'Malley A.S., Lang E., Ojikutu I.
Institute: University of St Andrews.

Abstract: 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.

Method: In this study, we investigated this phenomenon across three domains: mental health screening, emotional intelligence, and demographic representation. Using standardized 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 emphasized health-promoting behaviors when prompted with a full questionnaire context. Similar context sensitivity was observed in tasks involving emotional attunement and racial representation, suggesting a generalizable "Hawthorne-like" effect in LLM behavior.

Results: 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. This risks introducing an artefactual layer to simulation, reducing fidelity and masking important pedagogical challenges such as non-adherence, diagnostic uncertainty, or patient mistrust.

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

Title: Longitudinal Evaluation of Clinical Post-graduate Training Program Perceptions Among Residents: A Single-Center Study

Authors: Aasma Nudrat Zafar,
Institute: Fauji Foundation Hospital & Foundation University Islamabad

Abstract: 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.

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.

Title: Stitching Morals into Medicine: The Role of Character Education in Medical Training

Author: Dr Rabia Anis, Prof M Yahya Noori, Liaquat University of Medical and Health Sciences Jamshoro

Abstract: Character education is a crucial yet often overlooked component of medical training. While medical curricula focus on clinical competencies, structured development of ethics, professionalism, and resilience is inconsistent. These qualities are essential for shaping physicians who can navigate complex patient interactions, ethical dilemmas, and leadership roles. This study explores how character strengths are perceived, developed, and applied in medical training and aims to provide recommendations for their integration into curricula.

Method: This mixed-methods study will assess students' perceptions through a validated questionnaire and gather qualitative insights from faculty and administrators via in-depth interviews (IDIs). Participants: 200 medical students (100 from each of two institutions—one public, one private) will complete a 10-item Likert-scale questionnaire. Three faculty members and two administrators per institution will participate in IDIs. Students will complete a survey measuring their perceptions of character education and engage in a game-based reflective activity. Faculty and administrators will discuss institutional efforts, challenges, and strategies for fostering character strengths in students. Descriptive statistics and Mann-Whitney U test will be used to analyze survey data (p-value <0.05 for significance). Thematic analysis will identify key patterns in qualitative data.

Results: Findings will highlight gaps in character education, the role of mentorship, and institutional challenges in integrating ethical and leadership training. This study will contribute to designing structured programs that ensure future physicians are not just clinically proficient, but also ethically responsible and emotionally intelligent.

Conclusion: This study aims to bridge the gap in medical education by emphasizing structured character education alongside clinical training. By analyzing student

perceptions through surveys and gathering faculty and administrator insights via interviews, it will identify gaps, challenges, and opportunities for integrating ethics, professionalism, and resilience into medical curricula. Findings will inform strategies to develop compassionate, ethical, and competent physicians who can navigate complex patient care and professional responsibilities. Strengthening character education will contribute to a more patient-centered, ethically grounded, and emotionally intelligent healthcare workforce.

Title: Comparative Effectiveness of Medium Fidelity Simulation and Virtual Simulation in Enhancing Local Anesthesia Skills and Self-efficacy in Dental Education

Author: Dr Rabia Anis
Institute: Liaquat University of Medical and Health Sciences, Jamshoro.

Abstract: Advancements in clinical dentistry are vital for equipping undergraduate dental students with critical skills, especially in areas like LA administration in Oral Surgery. Precision and expertise are required for this task, prompting the need for innovative teaching methods.

Aims: This study investigated the comparative effectiveness of MFS and Virtual Simulation methods in enhancing LA training skills for final-year dental students. The aim was to improve self-efficacy in performing LA procedures, ultimately enhancing patient safety and elevating the quality of dental care.

Method: This Randomized Control Trial (RCT) conducted at Isra Dental College, Hyderabad, over five months, compared MFS and Virtual Simulation for LA training in dentistry among 50 Final Year Undergraduate Dental Students. Each group underwent a 2-week training period, assessed through 3D Model and Virtual Simulation Mobile App evaluations (utilizing validated questionnaires), followed by Real Patient Assessments. Data analysis utilized Comparative Analysis methods, including the Mann-Whitney U test and Wilcoxon Signed Rank Test, with a significance level of $\alpha = 0.05$.

Results: The demographic analysis highlighted that 92.0% of the Virtual Simulation group and 80.0% of the MFS group utilized smartphones for daily learning, with 72.0% and 44.0%, respectively, spending 3-6 hours on mobile simulators. Regarding online training, 60.0% of both groups relied on YouTube. Clinically, the Virtual Simulation group outperformed significantly (mean ranks: 18.30 vs. 32.70, $p < 0.001$). Post-intervention, both groups showed increased self-efficacy in comfort ($p < 0.001$), user-friendliness ($p = 0.046$ vs. $p = 0.002$), and realism of 3-D images ($p = 0.041$ vs. $p = 0.003$), affirming Virtual Simulation's potential in dental education.

Conclusion: The study underscores Virtual Simulation's efficacy, particularly via mobile app, in enhancing LA skills and self-efficacy among final-year dental students. While MFS influences confidence, Virtual Simulation emerges as the superior and versatile teaching modality.

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

Authors: Prof. Ahmad Rasheed. Pro-Director Education at London School of Hygiene and Tropical Medicine
Institute: London School of Hygiene and Tropical Medicine, London,UK.

Abstract

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.

Method: We conducted semi-structured

interviews using a qualitative research design. Public and private medical schools across various provinces of Pakistan.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.

Title: Validation of Training of Simulated Patients for Teaching and Assessment of History-Taking Skills of Medical Students in Obstetrics and Gynecology

Authors: Assoc Prof. Archana Prabu Kumar,
Authors: Archana Prabu Kumar, Arabian Gulf University, Bahrain , Diaa Rizk, Arabian Gulf University, Bahrain , Ahmed Al-Ansari, NHRA, Bahrain, Zainab Al Jufairi, Arabian Gulf University, Bahrain , Taysir Garadah, Arabian Gulf University, Bahrain , Hany Atwa, Arabian Gulf University, Bahrain and Suez Canal University, Egypt, Mohamed Hany Shehata , Arabian Gulf University, Bahrain and Helwan University, Egypt, Abdelhalim Deifalla , Arabian Gulf University, Bahrain and Suez Canal University, Egypt

Abstract: 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 programmes in the Middle East is challenging due to cultural and religious sensitivities.

Aim: This study aimed to recruit, train and validate SPs for teaching OB-GYN history-taking in a Middle Eastern medical education context.

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 programme 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.

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

Authors: Masood Jawaid
Institute: Jinnah Sindh Medical University, Pakistan.

Abstract:

Aim: 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 are known as blended learning (BL). This study aimed to compare the intrinsic motivation of surgical students enrolled in blended 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 f2f teaching).

Methods: A quasi-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 (f2f teaching) and Group B in Surgical-II (BL).

Both groups were taught the same contents with the same schedule. The F2F group had clinical exposure to real patients, and small group discussions (SGDs) while The BL group 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 nother four weeks and IMI was administered.

Results:

Fifty-eight students completed IMI; 28 in f2f and 30 in BL group. 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.

Title: ERCP Training and Assessment – The Forgotten Aspects

Authors: Saira Akhlaq, Shahzad Riaz, Haniya Shehzad, Muslim Atiq.
Institute: Shifa International Hospital, Tameer e Millat University, Agha Khan University, Karachi.

Abstract: ERCP (Endoscopic Retrograde

Cholangio-pancreato-gram) 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.

Method: 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.

Results: 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.

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

Authors: Dr. Amara Butt
Institute: Rawal Institute of Health Sciences, Islamabad.

Abstract: 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.

Aims: 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.

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.

Title: Strengthening Undergraduate Forensic Medicine Education Through Curriculum Reform In Pakistan: A Mixed-Method Study Based on Faculty Perspective

Authors: Dr Sundus Ambreen, Dr Tasneem Murad, Dr Shirza Nadeem

Institute: Riphah International University Islamabad, University Medical And Dental College Faisalabad.

Abstract: 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.

Method: This mixed-methods, 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.

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

Authors: Halima Albalushi, Nazik Ahmed, Rawan Al Busaidi, Yamamah Mohmood, Aya Al

Rahbi, Srijit Das.
Institute: Sultan Qaboos University.

Aims: 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 were 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.

Title: Creating Globally Accepted Benchmarks for Assessment of Ophthalmology Trainees

Authors: Kavya M Bejjanki, Avinash Pathengay.
Institute: L V Prasad Eye Institute

Abstract: 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.

Aim: 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.

Title: Peer and Mentor-Based Assessments on Virtual Platforms in Ophthalmology Training

Author: Dr. Kavya M Bejjanki, Kavya M Bejjanki, L V Prasad Eye Institute, AVINASH PATHENGAY, L V PRASAD EYE INSTITUTE

Abstract: With the expansion of digital education, there is increasing interest in incorporating peer and mentor feedback in virtual assessments.

Aim: This study evaluated the effectiveness of peer and mentor-based evaluations using digital platforms for competency development in ophthalmology trainees.

Method: A cohort of 161 trainees participated in a multi-step assessment involving case-based presentations and structured video submissions, evaluated by assigned peers and mentors using cloud-based platforms (Microsoft OneDrive and Google Forms). Peer evaluation included both scores and constructive feedback. A fixed matrix assigned evaluators per rotation cycle. Submission compliance, feedback quality, and learning impact were tracked over 8 weeks.

Results: Over 95% of trainees engaged in peer evaluations, with 87% submitting on time. 78% of feedback comments were considered "educationally meaningful" by an independent panel. Peer feedback often emphasized clarity, depth, and clinical reasoning, while mentor feedback more frequently addressed judgment and surgical planning. 64% of trainees reported modifying their approach in subsequent tasks based on peer input. Assessment transparency improved, and participants reported higher satisfaction with collaborative learning (mean rating: 4.6/5).

Conclusion: Peer and mentor-based assessment via virtual platforms enhanced trainee engagement and reflection. The combination of peer insights and expert guidance created a dynamic feedback ecosystem, supporting personalized learning and collaborative growth in ophthalmology education.

Title: Interactive Video-Based Learning for Ophthalmology Trainees: A Global Perspective

Authors: Kavya M Bejjanki.

Institute: L V Prasad Eye Institute.

Abstract: Video-based learning has emerged as a powerful tool in surgical and clinical education.

Aim: This study explored the impact of interactive, trainee-generated videos as a method to teach surgical reasoning, outpatient examination, and reflective practice among ophthalmology trainees.

Method: 161 trainees submitted video projects as part of their final assessment. The themes included surgical decision-making, outpatient techniques, and "lessons from the field." Guidelines encouraged storytelling, animation, peer instruction, and creative engagement. Each video was evaluated using a rubric based on educational clarity, creativity, and clinical relevance. Peer voting and mentor reviews were used to triangulate evaluations.

Results: 96% of trainees submitted videos. Surgical themes like "Managing Intraoperative Surprises" and "My First Flap" were popular, while outpatient topics included "Foreign Body Removal Techniques" and "Improving Slit Lamp Exams." 88% of videos met criteria for clinical accuracy and engagement. Peer ratings correlated strongly with mentor evaluations (r=0.84). Qualitative analysis revealed enhanced trainee confidence and deeper understanding of surgical workflows. 71% of viewers reported they learned a new skill or

improved perspective after watching peer videos.

Conclusion: Interactive video creation fosters active learning, surgical insight, and peer-based knowledge exchange. When creatively designed and clinically grounded, trainee-generated videos can significantly enhance ophthalmology education across varied global settings.

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

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Abstract: 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.

Aims: 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.

Title: Impact of Counselling Cell Model for Habitual failures by exploring the reasons behind choosing the medical profession

Authors: Zeelaf Shahid, Jinnah Medical and Dental College, Karachi. Pakistan,
Soobia Saeed, Taylor's University, Malaysia

Abstract: Traditional counselling highlights a serious weakness in the support networks pressing need for creative, data-driven solutions offering focused and efficient interventions.

Aim: An entirely novel Counselling Cell Model is major breakthrough to lower dropout rates while simultaneously improving academic performance and general student well-being.

Method: An academic interventional study was meticulously carried out with an emphasis on MBBS students enrolled from 2019 to 2024 at Jinnah Medical and Dental College, Karachi. Pakistan with Purposive sampling. Self-administered questionnaires were given to "cases" (students who had at least one professional test score below 50%) and "controls" (students who routinely scored above 50%). Information was gathered, including demographics, academic history, the reasons behind the initial decision to pursue medicine, and several stress indicators. Struggling students participated in 30- to 45-minute counseling sessions and grouped according to motives, performance patterns, and other relevant criteria.

Results: AI-driven analysis identifies critical areas where struggling students required targeted support, particularly in career guidance and mental health interventions. Notably, students nearing the completion of their program demonstrated a higher willingness to accept recommendations and actively work towards improving their performance.

Potential Educational Impact: Future medical professionals will be both academically and mentally strong because of AI's capacity to recognize at-risk students early, provide individualized career guidance, and help with stress management guiding institutional policy, staff training, and curriculum creation.

Feasibility of Innovation: AI-based Counseling Cell Model may be successfully integrated into existing educational infrastructures using data sources (academic records, surveys), statistical software (SPSS-23) and AI algorithm for analysis to enhance student support services without major modifications to current systems.

Conclusion: AI into counseling presents a revolutionary chance to successfully tackle the intricate psychological and motivational issues over academic careers increasing student achievement, mental health outcomes, and medical staff that is more prepared and resilient.

Title: Conceptual Framework of Rural-Streamed Medical Students' Professional Identity Of General Practitioners: A Focus Group Study

Authors: Yilin Chen, Peixin Lin, Shantou Hengshun Du, Shantou Jiaxin Wu, Kai Lin
Institute: Shantou University Medical College

Abstract: 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 analyzed 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 emphasized 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 emphasize the need to address systemic barriers and prioritize educational interventions to strengthen China's primary care workforce.

Title: Small Group Discussions as a Tool for Socially Accountable Medical Education: Aligning Curriculum with Sustainable Development Goals

Author: Ayesha Aleem Qureshi
Institute: Bahria College of Medicine, Bahria University

Abstract: Medical education must keep pace with global advancements to equip graduates for complex community health challenges. The Sustainable Development Goals (SDGs), particularly SDG 3 (Good Health and Well-being) and SDG 4 (Quality Education), emphasize the need for inclusive, community-focused medical training. Small Group Discussions (SGDs), widely used in undergraduate curricula, offer opportunities to promote critical thinking, collaboration, and social accountability—especially when centered on real-world health issues.

Aims: This study explores the impact of integrating SDG-aligned content into SGDs on medical students' awareness of global health priorities and their perceived preparedness to serve diverse populations

Methods: A mixed-methods study was conducted among first-year MBBS students at Bahria College of Medicine, Islamabad. SGD cases were restructured to reflect community health concerns aligned with SDG themes (e.g, climate-sensitive diseases). A pre- and post-intervention survey measured changes in students' awareness and attitudes toward social accountability and global health priorities. Additionally, facilitator reflection logs and a sample of student reflections were thematically analyzed.

Results: Preliminary findings showed a statistically significant increase in students' perceived relevance of global health themes in clinical learning. 87% of participants reported greater engagement and a deeper understanding of the social determinants of health. Faculty reflections highlighted enhanced critical discussions and empathy-driven learning among students.

Conclusion: Embedding SDG-relevant themes into SGDs can enrich undergraduate medical education by aligning it with global health goals and enhancing students' sense of social responsibility. This approach is easily implementable and supports competency-based, community-responsive curriculum reform.

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

Author: Humaira Shamim Kiyani
Institute: Riphah International University

Abstract: 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.

Aim: 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.

Method: 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 participant. 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 include 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% 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% 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.

Title: Role Of Student Led Podcasts in Redefining Medical Education - A Study On The Development Of Via Sana, The Travel Medicine Podcast A

Author: Anushaa Chandran
Institute: IMU University

Abstract: 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.

Aims: 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.

Title: An Approach to Develop Cognizance Among Clinical Faculty Regarding Integrated OSCE

Author: Ayesha Iqbal, Muhammad Iqbal Khan, Saira Akhlaq, Tahir Iqbal, Sajawal Hussain
Institute: Shifa Tameer-e-Millat University, Islamabad

Abstract: 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.

Aim: The study aims to develop cognizance among clinical faculty regarding the use of i-OSCE in the exit exam of MBBS.

Method: 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

Title: Assessing Undergraduate Students' Awareness and Perspectives on Artificial Intelligence in Medical and Allied Health Sciences:

Author: Laveeza H. Syeda, Zoya Batool, Zeeshan Hayder, Dr. Shabana Ali
Institute: Riphah International University

Abstract: In developing countries like Pakistan, AI adoption in clinical practice is advancing faster than its inclusion in medical education.

Aim: 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 (χ^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 favored 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 (χ^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 (χ^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.

Title: Intellectual Harassment and Its Impact on Psychological Well-being, Professional Development, and Workplace Satisfaction among Medical and Dental Trainees in Islamabad

Author: Maryam Sajid
Institute: Islamic International Dental College, Islamabad

Abstract: 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.
Aim: 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 $p < 0.001$)
Conclusion: 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.

Title: Using Role-Play Simulations to Foster Ethical Competency in Undergraduate Medicine

Author: Muhammad Usama Ghaffar
Institute: Riphah Institute of Pharmaceutical Sciences, Riphah International University, Islamabad.

Abstract: 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: Hicks, L. K., Lin, Y., Robertson, D. W., Robinson, D. L., & Woodrow, S. I. (2001). Understanding the clinical dilemmas that shape medical students' ethical development: Questionnaire development and reliability. Academic Medicine, 76(5), 517–523. https://doi.org/10.1097/00001888-200105000-00020 Bebeau, M. J., & Thoma, S. J. (1999). “Intermediate” concepts and the connection to moral education. Educational Psychology Review, 11(4), 343–360. https://doi.org/10.1023/A:1009032016272

Title: Case Report of Development of Leadership and Communication Projects for Undergraduate Medical Students through Student Collaboration across Thailand

Author: Wiritpol Duangjan, Siwakan Witayanukorn
Institute: Thailand

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.

Method: 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.

Results: 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.

Conclusion: 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.

Title: Impact of a Faculty-Led Coaching Program on Academic Performance and Experiences of Struggling Medical Students: A Mixed-Methods

Author: Sana Shah, Abdullah Sikander
Institute: Islam Medical College, Pakistan

Abstract: 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.

Title: The Need for a Globalized Medical Curriculum: Voices of Medical Students Aspiring to Pursue a Career Abroad

Author: Sreenidhi Prakash, Krishna Mohan Surapaneni Panimalar
Institute: Medical College Hospital & Research Institute

Abstract: 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.

Method: 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.

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

Author: Aizaz Ahmad Khan, Maryum Fatima, Javeria Noor, Sarah Khalid
Institute: Shalamar Medical and Dental College

Abstract: 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.

Title: Self-Directed Learning (SDL) Readiness of Medical And Dental Students, In A Private University of Pakistan.

Author: Narmeen Ahmed[1], Sumera Saeed[2], Iram Khursheed[1] Ziauddin University[1], Sir Syed college of Medical Sciences[2]

Abstract: 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 encourage them to become lifelong learners which is essential to provide evidence-based patient care.

Aims: 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 form 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

Title: Perceived Knowledge, Perception & Readiness of University Students on Sustainability Education & Practice

Authors: Ganesan S, Khoo SP, Shankar PR, Juahir ME, Chithiramanaalan S, Seow PE, Yeo KS, Premanenth

Institute: KD IMU University

Abstract: 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.

Aim: 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 analyzed 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 forsustainability 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

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

Authors: Khoo Suan Phaik, Zubaidah binti Hamid, Adibah Hakimi, Suneet Sood
Institute: IMU University, Malaysia

Abstract: 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.p

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

Conclusion: 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.

Title: Educational Videos as an Adjunct Learning Tool in Pre-Clinical Operative Dentistry

Author: Kiran Kumar
Institute: Ganji Jouf University

Abstract: 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.

Aim: 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.

Title: Empowering The Future Workforce: Building A Foundational Understanding Of Artificial Intelligence Among Undergraduate Students

Author: Ebenezer Chitra, Nilesh Kumar Mitra, Muneer Gohar Babar, Gunasekar Thangarasu, Tan Ee Xion

Institute: IMU University, Kuala Lumpur, Malaysia

Abstract: 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 visualisation. 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 visualisation and be proficient in using different tools to analyse 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.

Title: Empowering Health Professions Educators: A Comprehensive Leadership Course

Author: Siti Suriani Binti Abd Razak, Jane Dacre
IMU University, UCL Medical School, University

College London

Abstract: 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.

Title: Enhancing Resuscitation Training through Competition: Participant Reflections from the Labuan Resuscitation Challenge

Abstract: 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.

Aim: To explore participants' perceptions of confidence, satisfaction, and educational value following a competition-based ACLS training program.

Method: 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 analyzed 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.

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

Author: Dr. Atif Mahmood
Institute: Jinnah Medical and Dental College.

Abstract: As digital content becomes the norm in academic settings, the debate over the efficacy of eBooks versus printed books continues.

Aims: 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: 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 contextualize and apply scientific principles within their specific work roles. These outcomes highlight the program'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 program that aligns closely with industry needs and operational realities. The success of this program suggests that future CPD designs should prioritize 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.

POSTER PAPERS

Title: Benchmarking Learning Environments: A DREEM Analysis of Private Medical Colleges in Islamabad

Author: Dr Nayyab Zehra, Dr. Maria Mughal, Dr. Hina Umair, Dr. Raima Siddiqui

Institute: Bahria University College of Medicine, Islamabad, Nust School of Health Sciences, Islamabad, Wah Medical College, Wah, Hitec Medical College, Taxila

Objectives: 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.

Methods: 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.

Title: Longitudinal Evaluation of Clinical Post-Graduate Training Program Perceptions Among Residents: A Single-Centre Study

Author: Dr Aasma Nudrat Zafar

Institute: Foundation of University Islamabad & Fauji Foundation Hospital

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

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.

Title: 360 Immersive Learning Space: Transforming Education for Healthcare Students

Author: Sarladavi Yogolingam, Nurul Rimadhayanti Binti Hamzah, Manimagalai Krishnan
Institute: IMU University

Objective: 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).

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- centered learning and advancing SDG 4, Quality Education. Nevertheless, issues like cognitive overload must be addressed.

Title: Comprehensive sex education is crucial: A review of sex education in China inspired by American sex education mode

Author: Xuan Zhang . Teammate

Objective: To improve the quality of sex education in China and appeal to all stakeholders to commit to the improvement of sex education.

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.

Results: 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

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.

Title: A moot court session for medical students learning about holistic care for survivors of gender-based violence

Author: Ki Sum Samson WONG, Olivia Miu Yung NGAN, Jay YAM

Institute: School of Nursing, Li Ka Shing Faculty of Medicine, The University of Hong Kong, Hong Kong SAR, School of Clinical Medicine, Li Ka Shing Faculty of Medicine, The University of Hong Kong, Hong Kong SAR, Faculty of Law and Li Ka Shing Faculty of Medicine, The University of Hong Kong, Hong Kong SAR Association Concerning Sexual Violence Against Women (ACSVAW), Hong Kong SAR.

Objective: 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.

Methods: 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.

Title: 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

Author: NILAR WIN
Institute: International Islamic University Malaysia

Objective: The objective of this study was to study the association between DE, DIF, and DI under Classical Test Theory (CTT) as well as evaluate item performance in an undergraduate medical exam.

Methods: A psychometric cross-sectional survey was conducted with 60 SBA 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. Spearman's rank correlation tested 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 high positive correlation between DIF and DI ($r = 0.327$, $p = 0.011$). There was, however, a highly negative correlation between DIF and DE ($r = –0.699$, $p < 0.001$). Between DI and DE, there was no significant correlation ($r = –0.144$, $p = 0.272$).

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.

Title: Impact of Generative AI on Learning, Teaching and Assessment in Health and Medicine

Author: Alexandra L. Webb, Julia Ellyard
Institute: Australian National University

Objective: 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.

Title: Evaluating AI Chatbots for Postgraduate Pediatric Education: A Comparative Study of ChatGPT and Copilot

Author: Mao-Meng Tiao

Institute: Kaohsiung Chang Gung Memorial Hospital and Chang Gung University College of Medicine

Objective: 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 analyzed 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.

Title: Interprofessional Learning Through Joint Case Sharing: Collaborative Medical and Dietetics Care in Surgical Patients

Author: Pheh Huang SOH, Ismail Abdul Sattar BURUD

Institute: Division of Nutrition, Dietetics and Food Science, School of Health Sciences, IMU University, Department of Surgery, School of Medicine, IMU University Malanashita GANESON. Department of Family Medicine.

Objective: 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.

Methods: 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.

Results: 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.

Title: Experience in using commitment-to-change statements in the AO faculty education program

Authors: Woei Yun Siow. Raffles Hospital Singapore

Abstract 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.

Title: Developing a Large Language Model for a Self-directed Triage training program using Artificial Intelligence

Author: Madurangee Uyanage Isuru, Barwon Health, Geelong,

Institute: Quantum Clinical Care, Australia Tharindu Dhananjaya Uyanage, Australia Suriyaarachchige Nishan Silva . Quantum Clinical Care, Australia

Objective: 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.

Title: Peer feedback as part of collaborative learning in medical students - navigating the challenges for Malaysian students

Author: Shivali Shamsher**,** Debbi Marais
Institute: AIMST University, Malaysia, Warwick Medical School, University of Warwick

Objective: 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.

Title: Student Perceptions regarding Special Care Unit Experience during Year 5 Medicine Rotation in a Private Medical College in Pakistan

Author: Shakil Sara, Iffat Khanum, Kiren Habib, Faisal Ismail
Institute: Aga Khan University, Karachi, Pakistan

Objective: This study aims to evaluate student perceptions of SCU rotation's effectiveness in achieving educational goals, enhancing engagement, and improving clinical readiness.

Methods: 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.

Title: Bridging Theory and Practice: Dietetics Students' Experiential Learning in Community Dietetics with Orang Asli

Author: Nur Adila Binti Samingan, Farah Yasmin Binti Hasbullah
Institute: Division of Nutrition, Dietetics and Food Science, School of Health Sciences, IMU University

Objective: The objective is to explore students' experiential learning with Orang Asli community during diabetes awareness event.

Methods: 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 analyzed 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.

Title: Natural Medicines in Improving Health Profession Education

Author: Tehseen Quds
Institute: Department of Pharmacognosy, Dow College of Pharmacy, Dow University of Health Sciences

Objective: 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.

Methods: 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) have 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.

Title: The Impact of Social Media Usage in Digital Professional Identity Development of Undergraduate Medical Students

Author: Angelica Angga Kusuma Putri, Natalia Puspadewi

Institute: School of Medicine and Health Sciences, Atma Jaya Catholic University of Indonesia

Objective: 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.

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 analyzed 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.

Title: Do Iterative AI Prompts Improve Clinical Case-Based Learning? A Student's Perspective and Analysis in Medical Education

Author: Chaya Prasad, Chaya Prasad
Institute: Western University of Health Sciences, Medical University of Lublin

Abstract 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 analyze 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 analyzing 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.

Title: Medical Students' Emotional Responses towards the White Coat Ceremony and Its Influence in Professional Identity Formation - A Pilot Study

Author: Khine Pwint Phyu, Rafeah Binti Pakri Mohamed
Institute: Taylor's University Ganesh Ramachandran, UCSI University Vivian George Vincent Fernandez . Taylor's University

Objective: 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.

Title: Faculty Development for Competency-Based Education in Health Sciences: Adapting Course Development to Resource Constraints at Health Sciences Institute of Royal Cambodian Armed Forces

Author: Soksereivotanak OUK, Narin CHHIN, Dara KOY

Institute: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Health Science Institute of Royal Cambodian Armed Forces (HSI-RCAF), Health Science Institute of Royal Cambo

Objective: 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.

Methods: 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.

Results: 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.

Title: Early career research training on Grant writing & Research Management

Author: Nasir Nosheen, Iffat Khanum, Safia Awan .

Institute: Aga Khan University Hospital, Karachi, Pakistan

Objective: 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 behavior. 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.

Title: Incorporating a Sex and Gender Lens into Medical Education in Pakistan

Author: Sabahat Noor Us, Zain ul Abidin, Zainab Samad, Sara Shakil, Sana Sheikh, Sadaf Khan

Institute: Aga Khan University, Pakistan

Objective: 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 analyzed 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.

Title: Balancing Innovation in Teaching: Exploring Medical Students' Perceptions of Active Learning Strategies through Mixed Method Study

Author: Maria Mughal, Sadaf Saleem, Sarah Amin

Institute: NUST School of Health Sciences, Islamabad

Objective: 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.

Conclusion: 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.

Title: Harnessing Educational Technology in Health Science Education in Cambodia: Current Trends and Future Directions

Author: Virak Sorn, Yanvary Chhon, Lykeang

Muk, Romnea Mao, Sokhoeun Eat
Institute: Faculty of Health Science & Biotechnology, University of Puthisastra, Phnom Penh, Cambodia
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 analyzed and compared to determine current deployment of digital tools, technology-enhanced learning, and blended learning models in Cambodian health education settings.
Results: 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.

Title: Detection of Heat Related Illness via Retinal Scan Application: A pilot study

Author: Maizatullifah Miskan, Datin Dr. Hasliza Abu Hassan, Shazreen Shaharuddin, Aina Malindri Dasrilsyah, Suzaimah Ramli, Nani Nordin, Farizatul Shima Wan Ahmad Fakuradzi, Mohd Arshil Moideen, Shamsuriani Md Jamal
Institute: National Defence University of Malaysia, Monash University Malaysia, National University of Malaysia
Objective: 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.
Methods: 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.

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.

Title: Descriptive Study: Objective Assessment of Year 4 Primary Care Medicine Students' Performance In the Outpatient Setting Using Standardized Rubrics

Author: Mohd Khairul Nizam Md, Chan Sook Ching, Lee Sze Leng, Elvind Yip Hung Loong

Institute: Arshad Universiti-Kuala Lumpur, Universiti-Kuala Lumpur- Royal College of Medicine Perak, Universiti-Kuala Lumpur-Royal College of Medicine Perak, Universiti-Kuala Lumpur- Royal College of Medicine Perak

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.

Title: Ideological Influence in Healthcare Education: A Thematic and Sentiment Analysis of Narratives from Dental Academia

Author: Sajid Maryam Sajid, Javed Ashraf, Eisha Ali, Hoor Fatima Butt

Institute: Riphah International University, Islamabad, Pakistan

Objective: 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.

Title: Psychiatry Training Course: Does it Affect Attitude of Undergraduate Medical Student Towards Mental Illness and Psychiatry?

Author: Raafat Shegdar, Hanan Elsayed, Ayat R. Abdallah

Institute: Department of Medicine, College of Medicine, Taibah University KSA, Department of Psychiatry, College of Medicine, Mansoura University Egypt, Department of Family and Community Medicine, College of Medicine.

Objective: 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.

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, favorable attitudes toward psychiatry were increasing observably after attending the course [20.4%, 43%]. Hospital learning students held more increase in the favorable 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 to enhance awareness among the students.

Title: An Innovative Peer-Assisted Learning Model for Medical English Based on Narrative Medicine: An Empirical Study in China

Author: Weiquan Liang[1], Taipei Tzu[2], Peixin LIN[3], Tian HUANG[4], Gang XIN[5], Xinxin Li[6]

Institute: [1,2]Chi Hospital, Taiwan, [3]First Affiliated Hospital of SUMC, [4]Shantou University Medical College, [5]Shantou University Medical College, [6]First Affiliated Hospital of SUMC

Objective: 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 favored 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.

Title: Teaching What Matters: Evaluating the Clinical Utility of Core Medicine Sessions (CMS) in Final-Year MBBS

Author: Habib Kiren, Sara Shakil, Iffat Khanum, Faisal Ismail

Institute: Aga Khan University, Pakistan

Objective: 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.

Title: Exploring Knowledge, Attitudes, Practices, and Barriers to Medical Research: A Cross- Sectional Survey of Postgraduate Medical Trainees in LMIC

Author: Iffat Khanum, Ibtesam Ishrat, Zafar, Sara Shakil

Institute: Aga Khan University, Karachi, Pakistan

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 asses 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.

Title: Validation of the ICO-OCEX Tool for Competency-Based Assessment in Ophthalmology Residency Programs

Author: Ambreen Gul[1], Rahila Yasmin[2], Usman Mahboob[3], Karl C. Golnik[4], Muhammad Moin[5]
Institute: [1]Rawalpindi Medical University, [2,3]Riphah International University, [4]Barrow Neurological Institute, [5]King Edward Medical University

Objective: 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.

Title: Bridging the Preclinical-Clinical Divide: A Student-Led Preclinical Grand Rounds for Case-Based Early Clinical Exposure

Author: Farsai Chiewbangyang[1], Chitanon Chamnanwithayanont[2], Maneerat Chayanupatkul[3]
Institute: Chulalongkorn University

Objective: 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, favoring 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.

Title: Undergraduate Public Health Education in China: Assessing Popularization and Future Directions

Author: Fang Ziqi[1], Yingting, Anhong[2], Minyi, Wu Chongman[3], Lin Xueyi, Ellen[4]
Institute: Shantou University Qiu

Objective: 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 analyzed 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.

Title: Resilience and Coping as Mediators between Psychological Distress and Academic Performance Among Medical Students: A Cross-Sectional Study

Author: Christian Edwin, Ardo Sanjaya, Sebastian, Kevin Gunawan, Christian Edwin, Nathanael A Mianto[6], Cindra Paskaria[7]
Institute: Christian Edwin, Maranatha Christian University

Objective: 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 analyzed using ANCOVA to compare constructs across semesters. Principal Component Analysis (PCA) and Structural Equation Modeling (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: 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.

Title: Leveraging AI to Enhance Education Efficacy: The Imperative for Aligning Curriculum, Instruction, and Assessment

Author: Paul Edelblut
Institute: Vantage Labs

Objective: 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.

Methods: We analyzed 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.

Title: Developing a Remote International Mentoring Scheme (RIMPS) for Undergraduate Medical Education in Conflict Zones

Author: Reem Al-Najim, Swe Khin-Htun, Aung Paing Htoo, Nandar Eain
Institute: Nottingham University Hospital

Objective: 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.

Title: The Functional Elements of Entrusted Professional Activities for Dental Educators: A Scoping Review

Author: Noraini Abu Bakar[1], Nurhanis Syazni Roslan[2], Muhammad Saiful Bahri Yusoff[3], Muhammad Ain ul Haq[4]

Institute: Universiti Sains Malaysia[1,2], Faculty of MedicineUPM[3], University of Dundee[4]

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.

Title: A Critical Evaluation of Two Teaching Approaches in Delivering Device-Based Skills to Semester 2 Medical Students

Author: Hazlina Abu Bakar

Institute: IMU University

Objective: 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.

Methods: 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.

Title: Integrating Comprehensive Assessment Strategies to Promote Active Learning Among Undergraduate Students in Professionalism and Ethics

Author: Nurul Iman Abdul Jalil, Ms. Nur Shakila Binti Ibharim, Anisah Zainab Musa
Institute: Universiti Tunku Abdul Rahman

Abstract: 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 behaviors and a significant improvement in students' ability to critically analyze 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.

Title: Towards Representative GenAI in Health Professions Education: Detecting and Correcting Demographic Bias in AI-Powered Simulation Education

Author: O'Malley A.S., Lang E., Ojikutu
Institute: University of St Andrews

Abstract: 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. This 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 behaviors under scrutiny.

Title: Anomy Reimagined: Comparing Traditional Teaching and 3D Digital Twin-Based Learningat

Author: Nayyab Zehra,
Institute: Bahria University College of Medicine, Islamabad

Abstract: Traditional methods of teaching anatomy, such as textbook illustrations and didactic lectures, often fall short in helping students grasp the complex three-dimensional structures of the human body. With the advent of digital technology in medical education, 3D digital twin models offer an interactive and immersive alternative that may enhance understanding, engagement, and satisfaction among medical students. However, empirical comparisons between these two teaching methods remain limited, particularly in low- and middle-income educational settings. This crossover study will be conducted among 1st-year MBBS students to compare the effectiveness of traditional anatomy teaching with 3D digital twin-based learning using Complete Anatomy Elsevier 3D software. Students will be randomly divided into two groups: Group A will receive a traditional lecture on one anatomical topic, followed by a 3D session on a second topic, while Group B will experience the reverse. Pre and post-tests will assess knowledge gain, while Likert scale feedback will measure student engagement and satisfaction after each session. Qualitative open-ended questions will also be asked to identify areas of improvement after the session based on Likert scale feedback. Statistical analysis, i.e., paired and independent t-tests, will be used to compare within- and between-group differences. The students will perform better in post-tests following the 3D digital twin sessions as compared to traditional teaching. Additionally, higher levels of

engagement and satisfaction will be reported with the 3D method. These results indicate that integrating digital twin technology into undergraduate anatomy teaching may significantly enhance the learning experience and support curriculum innovation in medical education.

Title: Co-Designing a Work-Based Learning Curriculum for a Food Science Innovation Degree: A 2u1i Industry-Academia Collaboration Mode

Author: Tan St[1*], Chee WSS[1], Abdul Malek S[2], Chong PN[1], Chong MHZ[1]
Institute: [1]IMU University, Division of Nutrition, Dietetics & Food Science, School of Health Sciences, Kuala Lumpur, Malaysia. [2]Food, Chemical, and Biotechnology Cluster, Singapore Institute of Technology, Singapore, Retired.

Objective: 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.

Methods: 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 programs. 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.

Title: Innovative Teaching Strategies to Support Generation Z's Learning Preferences in Health Professions Education: A Systematic Review

Author: Ulfat Bashir Raja
Institute: Riphah International University, Islamabad

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.

Results: 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.

Title: The FAIMER Institutes Revolutionizing global faculty development

Author: Pathiyil Ravi Shankar, Rashmi Vyas , , FAIMER Global FAIMER, , Rachmadya Nur Hidayah,

Institute: IMU University

Objective: This symposium examines the FAIMER programs using the strategies, stakeholders, and sustainability frameworks.

Methods: 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.

Title: Remediation in Programmatic Assessment: Impact on student's performance

Author: Zakia Saleem, Kinza Aslam, Sadia Irshad Leghari
Institute: The University of Lahore, Pakistan

Objective: The objective of the study is to assess the effects of of remediation or resit examination on academic achievements.

Methods: 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 enroll 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.

Title: Enhancing Interprofessional Education Through Ai: A Pilot Study Using the Myai Teaching Assisstant

Author: Maizatullifah Miskan[1], Norsilah Misfah[2]
Institute: FPKP[1], UPNM[2]

Objective: 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.

Methods: 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.

Results: 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.

Title: Assessing the Effectiveness of Moulage-Based Simulation to Learn Injury Interpretation, For Medicolegal Report Writing in Undergraduate Medical Students

Author: Tasneem Murad, Madiha Sajjad

Institute: Riphah International University, Islamabad

Objective: 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

Title: Operationalization of SDL among Undergraduate Medical & Dental Students

Author: Humera Gohar, Saira Akhlaq, Naveed Bhatti

Institute: STMU, Islamabad

Objective: It aimed to understand how students develop SDL habits and highlighted

the importance of SDL in shaping lifelong learners.

Methods: 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.

Title: A Reflective Experience: Supporting Student Use of Motivational Interviewing in Outpatient Clinical Dietetic Practice

Author: Nur Atiqa binti Ali
Institute: IMU University

Objective: 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.

Methods: 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: 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.

Title: Anatomy Reimagined: Comparing Traditional Teaching and 3D Digital Twin-Based Learning

Author: Nayyab Zehra
Institute: Bahria University College of Medicine, Islamabad

Abstract: Traditional methods of teaching anatomy, such as textbook illustrations and didactic lectures, often fall short in helping students grasp the complex three-dimensional structures of the human body. With the advent of digital technology in medical education, 3D digital twin models offer an interactive and immersive alternative that may enhance understanding, engagement, and satisfaction among medical students. However, empirical comparisons between these two teaching methods remain limited, particularly in low- and middle-income educational settings.

This crossover study will be conducted among 1st-year MBBS students to compare the effectiveness of traditional anatomy teaching with 3D digital twin-based learning using Complete Anatomy Elsevier 3D software. Students will be randomly divided into two groups: Group A will receive a traditional lecture on one anatomical topic, followed by a 3D session on a second topic, while Group B will experience the reverse. Pre and post-tests will assess knowledge gain, while Likert scale feedback will measure student engagement and satisfaction after each session. Qualitative open-ended questions will also be asked to identify areas of improvement after the session based on Likert scale feedback. Statistical analysis, i.e., paired and independent t-tests, will be used to compare within- and between-group differences. The students will perform better in post-tests following the 3D digital twin sessions as compared to traditional teaching. Additionally, higher levels of engagement and satisfaction will be reported with the 3D method. These results indicate that integrating digital twin technology into undergraduate anatomy teaching may significantly enhance the learning experience and support curriculum innovation in medical education.

Title: Towards Representative GenAI in Health Professions Education: Detecting and Correcting Demographic Bias in AI-Powered Simulation Education

Author: O'Malley A.S., Lang E., Ojikutu I.
Institute: University of St Andrews

Abstract: 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. This 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.

Title: Role of Natural Medicines in Improving Health Profession Education

Author: Tehseen Quds

Institute: Dow College of Pharmacy, Dow University of Health Sciences, Karachi, Pakistan

Objective: 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 moreinvolved 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.

Methods: 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 remedies are used to manage the chronic conditions like diabetes, hypertension, arthritis and anxiety as an alternative or in combination with conventional medicine. In addition, patient prefer natural medicines due to the lessen side effect when compare 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.

Title: High-Fidelity Simulation or Video? Comparing ECG Interpretation Skills in Early Medical Students" â€“ A Randomised Control Trial

Author: P.A. Lavanya S. Wijegunathileke, Gursimran Kaur, Dr Ratnadeep Saha, Dr Bikramjit Pal, Dr Harinarayan Radhakrishna, Dr Angus Aranan, Dr Prakash Manickam Kumarasamy, Dr Kye Mon Min Swe

Institute: Newcastle University Medicine Malaysia

Objective: 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.

Title: AI, Intelligence, and the Human Mind: Demographic Disparities in Cognitive Impact and Digital Dependency

Author: Dr Asma Basharat Ali, Prof Dr Atif Mehmood

Institute: Jinnah Medical & Dental College

Objective: 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.

Methods: 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 analyzed 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.

Title: Revolutionizing Medical Education: Evaluating the Impact of Artificial Intelligence-Driven Personalized Learning Pathways on the Academic Outcomes

Author: Dr. Maria Ilyas
Institute: Watim Medical & Dental College Rawat, Pakistan

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.

Methods: 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,

Title: Co-Designing an Integrated Medical Science and Humanities Course for Medical Students

Author: Jaeyeon Song, Minseop Song, Seoui Kwag, Seungyeon Boo, Suyoun Kim, Dasom Kim, Young-Mee Lee*, Im joo Rhyu
Institute: Korea University College of Medicine, Seoul, South Korea

Objective: 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

Title: Active Learning Meets Artificial Intelligence in Pulmonology Pre-Clinical Medical Education

Author: Sruthi Shriram, BS[1], Aaryan Patel, BS[1], Matthew Tufts, BS[1], Vijayan Sugumaran, PhD[2], Varna Taranikanti, MD, PhD[1]

Institute: [1]Oakland University William Beaumont School of Medicine, 586 Pioneer Dr, Rochester, MI 48309, [2]Center for Data Science and Big Data Analytics, Oakland University School of Business Administration,

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 analyzed 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 colors and engaging font and graphics to enhance participant interaction.

Conclusion: 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.

Title: Comparing Facility Index, Examiner-Estimated Difficulty, and Cognitive Levels of Questions in Preclinical Medical Examinations

Author: Sameera A Gunawardena, Phyu Synn Oo, Brinnell Annette Caszo, Kavitha Nagandla, Hui Meng Er
Institute: IMU University, Bukit Jalil, Malaysia

Objective: 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).

Title: Trends in the usage of the Learning Management System by the students in a Malaysian University

Author: Mohd Azrin bin Ibrahim, Assoc. Prof Dr Heethal
Institute: IMU University

Objective: This study aims to identify trends and patterns in the usage of LMS, such as peak usage times and variations across the academic calendar.

Methods: 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.

Title: Challenges in Curriculum Entry Points: A National Review of Portfolio-Based Admissions to Thai Medical Schools

Author: Farsai Chiewbangyang
Institute: Chulalongkorn University

Objective: 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.

RHIME ABSTRACTS COMPILATION

Title: Revisiting Flow Theory Through Immersive Metaphoric Role-Play: A Low-Cost, High-Impact Innovation in Health Professions Education

Category: Educational Technology
Authors: Samina Malik,
Institute: The University of Lahore, Dundee University

Background: In the era of globalized 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-centered 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 centered 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 anonymized reflections were inductively coded and analyzed 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 programs. The model's adaptability allows scaling across disciplines, institutions and cultures.

Conclusion: As globalization 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.

Takeaway Message: Immersive engagement opportunities in a happy classroom build learner's capacity and when we learn, we see the opportunities.

Title: Implementation of a Globalized AI-Supported Laparoscopic Training Course for Surgical and Allied Residents: A Longitudinal Study Evaluating Skill Transfer

Category: Educational Technology

Authors: [1]Dr Rabia Aftab, [2]Dr Aun Ali, [3]Dr Nadia Haroon

Institute: [1]Aga Khan University, [2]Fazia Ruth Pfau Medical College, [3]Ziauddin University

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, enhanced, 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 analyzed 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.

Title: 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

Category: Teaching and Learning

Author: Ayesha Malik. Aga Khan University Hospital

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 multi modal 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 analyzed 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 modules 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 provider safter 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.

Takeaway 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 equalization 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 midwife's 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.

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- It contains material or data without authorization to use.
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- It has been published solely on the basis of a compromised or manipulated peer review

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- The author(s) failed to disclose a major competing interest that, in the view of the editor, would have unduly affected interpretations of the work or recommendations by editors and peer reviewers.

At times the article may occasionally be retracted for correction of errors in submission or publication and will be replaced with the corrected one.

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8. The relevant changes in the online version will be reflected through **Crossmark** icon.

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The material submitted for publication may be in the form of an original research (Randomized controlled trial – RCT, Meta-analysis of RCT, Quasi experimental study, Case Control study, Cohort study, Observational Study with statistical support, etc.), a Review Article, a Case Report, Recent Advances, New Techniques, Debates, Book/CDs Review on Clinical/Medical Education, Adverse Drug Reports or a Letter to the Editor. Survey Articles and Studies more than five years old at the time of submission are not accepted for publication in JIIMC. Non- English articles are not accepted for publication in JIIMC.

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SHORT COMMUNICATIONS should be about 1000 words, with a non-structured abstract, two tables or illustrations and 5 references.

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REVIEW ARTICLE should consist of structured overview of relatively narrow topic providing background and recent development with reference of original literature. An author can write a review article only if he/she has written a minimum of three original research articles and some case reports on the same topic. Review articles should be of 2500 to 3000 words with a non-structured abstract of 150 words and minimum 3 key words.

LETTERS TO THE EDITOR should normally not exceed 400 words, have no more than 05 references and be signed by all the authors-maximum 3 are allowed. Preference is given to those that take up points made in contributions published recently in a journal. Letters may be published with a response from the author of the article being discussed. Discussions beyond the initial letter and response will not be entertained for publication.

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- When reporting the results of a randomized trial, JIIMC requires a completed CONSORT 2010 checklist and flow diagram as a condition of submission.
  - o CONSORT 2010 checklist
  - o CONSORT 2010 flow diagram
- Templates for these can be readily accessible here or on the CONSORT website, which also describes several CONSORT checklist extensions for different designs and types of data beyond two group parallel trials
- Authors should ensure that your article, at minimum, reports content addressed by each item of the checklist. Meeting these basic reporting requirements will greatly improve the value of your trial report and may enhance its chances for eventual publication.
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- **Clinical Trials:** Clinical Trials submitted for publication must be registered in public registry, e.g., http://clinicaltrial.gov/ , must provide registration proof & all RCTs must be based on CONSORT statement. Unregistered trials will not be published.

  A clinical trial is any research study that prospectively assigns human participants or groups to one or more health-related interventions to assess their effects on health outcomes. These interventions can include drugs, surgical procedures, devices, behavioral treatments, dietary changes, and modifications in care processes. Health outcomes encompass any biomedical or health-related measures collected from patients or participants, including pharmacokinetic data and adverse events. Purely observational studies (those in which the assignment of the medical intervention is not at the discretion of the investigator) do not require registration.

GENERAL ARCHIVAL INSTRUCTIONS

The manuscript should be typed in MS Word. Each manuscript should include a title page (containing email address, cell numbers, institution, and postal address of the corresponding author), abstract, key words, text, acknowledgements (if any), references, tables (each table, complete with title and footnotes) and legends for illustrations and photographs. Each component should begin on a new page. Sub-headings should not be used in any section of the script except in the abstract.

TEXT ORGANIZATION

All manuscripts except Short Communication and Letter to the Editor should be divided into the

following sections.

ABSTRACT

Abstracts of original article should be in structured with following sub-headings:

- Objective
- Study Design
- Place & Duration of Study
- Materials & Methods
- Results
- Conclusion

Four elements should be addressed: "why did you start?", "what did you do?", "what did you find?" and "what does it mean? ".” Why did you start?" is addressed in the objective. "What did you do?" constitutes the methodology and could include design, setting, patients or other participants, interventions, and outcome measures. "What did you find?" is the 'results', and "what does it mean?" would constitute the conclusions. Please label each section clearly with the appropriate sub-headings. Structured abstract for an original article, should not be more than 250 words. At least 3 key words should be written at the end of the abstract. Review articles, case reports and others require a short, unstructured abstract. Commentaries do not require an abstract.

INTRODUCTION

Write this section with references as per following instructions:

1. Give background information about the subject matter and the issues your study intends to address. Only strictly pertinent references should be cited, and the subject should not be extensively reviewed.
2. Describe what is known (in the literature) and what is not clear about the subject with reference to relevant literature thus identifying the literature gap.
3. You write the rationale (justification) of your study.
4. Finally, you mention the objective of your study

MATERIALS AND METHODS

Methodology is written in past tense.

Follow this sequence **without headings:**

- Study design
- Place and Duration of Study
- Sample size
- Sampling technique
- Mention about permission of the ethical review board and other ethical issues addressed.
- Inclusion and Exclusion Criteria
- Data collection procedure-
- Type of data: parametric or nonparametric
- Data analysis: including Statistical Software used, and statistical test applied for the calculation of p value and to determine the statistical significance. Exact p-values and 95% confidence interval (CI) limits must be mentioned instead of only stating greater or less than level of significance. All percentages must be accompanied with actual numbers.

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These should be presented in logical sequence in the text, tables, and illustrations. All the data in the tables or illustrations should not be repeated in the text; only important observations should be emphasized or summarized. No opinion should be given in this portion of the text.

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This section should include the author's comments on the results. Write in present tense, active voice except for results, which are written in past tense. It should be written in following sequence:

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- Discuss key studies relevant to your study.
- Compare your work with other's work.
- Describe limitations of your study.
- Suggest future work if necessary.

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REFERENCES

References must be written in Roman Number and in the Vancouver Style only. References should be numbered in the order in which they are superscripted in the text. At the end of the article, the full list of references should give the names and initials of all authors (unless there are more than six when only the first six should be given followed by et al). The author's names are followed by the title of the article; title of the journal abbreviated

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TABLES AND ILLUSTRATIONS

Tables and illustrations should be merged within the text of the paper, maximum number of tables and illustrations should not exceed four, and legends to illustrations should be typed on the same sheet. Tables should be simple and should supplement rather than duplicate information in the text; tables repeating information will be omitted. Each table should have a title and be typed in double space without horizontal and vertical lines on an 8 ½" x 11' paper. Tables should be numbered consecutively with Roman numerals in the order they are mentioned in the text. Page number should be in the upper right corner. If abbreviations are used, they should be explained in footnotes and when they first appear in text. When graphs, scattergrams, or histograms are submitted, the numerical data on which they are based should be supplied. All graphs should be made with MS Excel and be sent as a separate Excel file even if merged in the manuscript. For scanned photographs the highest resolution should be used.

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System International (SI) Unit measurements should be used. All drugs must be mentioned in their generic form. The commercial name may however be mentioned within brackets, if necessary.

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- JIIMC Conflict of Interest Performa
- JIIMC CopyRight and Undertaking Agreement
- IRC Certificate
- Bank draft as initial processing fee (Original bank draft send in JIIMC office)

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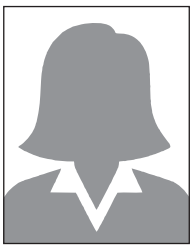

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