



APMEC 2024

ASIA PACIFIC MEDICAL EDUCATION CONFERENCE

Artificial Intelligence in Health Professions Education

Trends · Issues · Priorities · Strategies

15th to 21st January 2024 | Sri Lanka

Conference Handbook



Co-Organisers



Co-Organising Partners



Participating Partners



ASIA PACIFIC MEDICAL EDUCATION CONFERENCE 2024

CONFERENCE HANDBOOK

**Faculty of Medicine, University of Colombo and
Bandaranaike Memorial International Conference Hall
Colombo, Sri Lanka
15th – 21st January 2024**

CONFERENCE PARTNERS

Co-Organisers



Faculty of Medicine
University of Colombo
Sri Lanka



Centre for Medical Education
Yong Loo Lin School of Medicine

Co-Organising Partners



Ministry of Health, Sri Lanka



College of Medical Educationists,
Sri Lanka

Participating Partners



Asia Pacific
Medical Education Network
Promoting Scholarship and Excellence in Medical Education



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For enquiries, please email director@medarc.cmb.ac.lk

All information is correct at time of publication.

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Message from Dr Dujeepa D Samarasekera

Conference Co-Chair, Asia Pacific Medical Education Conference (APMEC) 2024

Artificial Intelligence in Health Professions Education – Trends · Issues · Priorities · Strategies

A warm welcome to the 21st Asia Pacific Medical Education Conference (APMEC) hosted by the Faculty of Medicine, University of Colombo in collaboration with the Centre for Medical Education (CenMED), Yong Loo Lin School of Medicine, National University of Singapore. The conference theme “Artificial Intelligence in Health Professions Education – Trends · Issues · Priorities · Strategies” reflects the growing importance and impact of artificial intelligence (AI) on healthcare delivery, education and research.

Let’s reflect, share experiences, insights and best practices on how to harness the power of AI to develop medical and health professional education to support our learners and improve healthcare systems. Once again, welcome to APMEC 2024 and we hope that you will enjoy the conference as well as the hospitality and beauty of Sri Lanka.

With best wishes,

Dr Dujeepa D Samarasekera FRCP(Edin)

Co-Chair, Organising Committee
21st APMEC 2024

Senior Director, Centre for Medical Education (CenMED),
Yong Loo Lin School of Medicine,
National University of Singapore,
National University Health System,
Singapore

Message from Professor Vajira H W Dissanayake

Conference Co-Chair, Asia Pacific Medical Education Conference (APMEC) 2024

Artificial Intelligence in Health Professions Education – Trends · Issues · Priorities · Strategies

I am pleased to welcome all delegates to the Asia Pacific Medical Education Conference (APMEC) 2024, where we delve into the exciting realm of Artificial Intelligence in Health Professions Education. We are thrilled to extend our warmest greetings to all of you who have gathered in Colombo, Sri Lanka for this groundbreaking conference, taking place from the 15th to the 21st of January 2024.

Prepare to embark on a transformative journey as we explore the intersection of AI and health professions education. This conference serves as a platform for passionate educators, researchers, and practitioners to come together and exchange innovative ideas, cutting-edge research, and best practices in leveraging AI to enhance health professions education.

From thought-provoking keynote speeches to interactive workshops and panel discussions, APMEC 2024 promises to be an immersive experience that will challenge your thinking and inspire new approaches to teaching and learning. Engage with experts from around the Asia Pacific region and beyond, as we collectively explore the potential of AI to revolutionize health professions education and improve patient outcomes.

Beyond the conference, Colombo offers a rich tapestry of culture, history, and natural beauty. Immerse yourself in the vibrant streets, savor the local cuisine, and experience the warm hospitality of Sri Lanka. Take this opportunity to connect with colleagues, forge new partnerships, and create lasting memories in this enchanting city.

Organising this conference in Colombo was special for us. I would like to extend a special word of appreciation to our colleagues at the Young Loo Lin School of Medicine of the National University of Singapore, led by my co-chair Dr Dujeepa D Samarasekera – their collegiality was exceptional.

The fusion of AI and health professions education holds immense potential to shape the future of healthcare. We hope that all of you would have an unforgettable conference experience that would result in a journey of discovery, collaboration, and innovation.

With best regards,

Vidya Jyothi Senior Professor Vajira H W Dissanayake

Co-Chair, Organising Committee
21st APMEC 2024

Dean, Faculty of Medicine,
University of Colombo,
Sri Lanka

PROGRAMME AT A GLANCE

ORAL PRESENTATION SESSIONS: DAY 1

Monday 15th January 2024

Venue: *Online Platform*

Time	Virtual Room 1	Virtual Room 2	Virtual Room 3	Virtual Room 4
9.00 am – 10.30 am	Free Communication 1	Short Communication 1	Free Communication 2	Short Communication 2
10.30am – 10.45 am	Break			
10.45 am – 12.15 pm	Free Communication 3	Free Communication 4	Short Communication 3	Short Communication 4
12.15 pm – 1.30 pm	Lunch			
1.30 pm – 3.00 pm	Short Communication 5	Short Communication 6	Free Communication 5	Free Communication 6
	End			

ORAL PRESENTATION SESSIONS: DAY 2

Tuesday 16th January 2024

Venue: *Online Platform*

Time	Virtual Room 1	Virtual Room 2	Virtual Room 3	Virtual Room 4
9.00 am – 10.30 am	Free Communication 7	Free Communication 8	Free Communication 9	Free Communication 10
10.30 am – 10.45 am	Break			
10.45 am – 12.15 pm	Short Communication 7	Short Communication 8	Short Communication 9	Short Communication 10
	End			

PRE-CONFERENCE WORKSHOPS AND SPECIAL COURSES: DAY 1

Wednesday 17th January 2024

Venues: *UCFM Tower, Faculty of Medicine, University of Colombo*

Special Courses | Full Day: 8.00 am – 5.00 pm (+0530 GMT)

SC1 [Onsite]

Special Course: Health Professions – Key Ideas for Teachers and Trainers (HP-KITT) - Session I

Ronald M Harden (United Kingdom), Jeni Harden (United Kingdom), Patricia Lilley (United Kingdom)

Venue: **Lecture Hall 2, Level 10, UCFM Tower**

SC2 [Onsite]

Special Course: ESME CT Master Class - Session I

Subha Ramani (United States of America), James Kwan (Singapore), Balakrishnan (Kichu) Nair (Australia)

Venue: **Seminar Room, Level 8, UCFM Tower**

AM: 8.00 am – 12.00 pm (+0530 GMT)

W1A1 [Hybrid]

Young Biomedical Science Educators (YBMS) Capstone (By Invitation Only)

Neil Osheroff (United States of America), Arthur Lau (Singapore), Ira Agrawal (Singapore), Neelima Gupta (Singapore), Vishna Devi Nadarajah (Malaysia), Vajira Dissanayake (Sri Lanka), Yvonne Steinert (Canada)

Venue: **Mini Auditorium 1, Level 1, UCFM Tower**

W1A3 [Onsite]

Quality Nursing Education

Nell Ard (United States of America), Jennifer Graebe (United States of America)

Venue: **Workshop Room 1, Level 1, UCFM Tower**

W1A4 [Onsite]

Beyond the Global North: Conducting International Health Professional Education Research and Scholarship

Sophia Archuleta (Singapore), Halah Ibrahim (United Arab Emirates), Shefaly Shorey (Singapore)

Venue: **Workshop Room 2, Level 1, UCFM Tower**

W1A5 [Onsite]

Basics of AI in Health Professions Education: AI for All

Goh Poh-Sun (Singapore), Elisabeth Schlegel (Bahamas), Mildred Lopez (Mexico)

Venue: **Workshop Room, Level 5, UCFM Tower**

W1A6 [Onsite]

Using Cinema to Explore the Current and Future Relationship Between Humans and AI in Health and Health Professions Education

Pathiyil Ravi Shankar (Malaysia), Saroj Jayasinghe (Sri Lanka), Panduka Karunanayake (Sri Lanka), Santhushya Fernando (Sri Lanka)

Venue: **Procedure Room, Level 8, UCFM Tower**

W1A8 [Onsite]

Leveraging AI for Student-Faculty Partnerships for Enhanced Learning

Syeda Sadia Fatima (Pakistan), Kulsoom Ghias (Pakistan), Tasneem Anwar (Pakistan), Satwat Hashmi (Pakistan), Kauser Jabeen (Pakistan)

Venue: **Workshop Room 1, Level 2, UCFM Tower**

<p>W1A9 [Onsite] Inter-Professional Social Accountability Educational Strategies for Next Generation Health Care Professionals Jyotsna Sriranga (India), Pushpanjali Krishnappa (India) Venue: Workshop Room 2, Level 2, UCFM Tower</p>
<p>PM: 1.00 pm – 5.00 pm (+0530 GMT)</p>
<p>W1P1 [Onsite] Developing Clinician-Scientists Shervanthi Homer-Vanniasinkam (United Kingdom), Dakshitha Wickramasinghe (Sri Lanka), Yawar Hayat Khan (Pakistan) Venue: Workshop Room 2, Level 1, UCFM Tower</p>
<p>W1P2 [Onsite] Evidence Based Principles to Facilitate Effective Learning in Everyday Teaching Encounters Matthew Low (Singapore), Shirley Ooi (Singapore), Khoo See Meng (Singapore), See Kay Choong (Singapore), Raj Menon Kumar (Singapore) Venue: Workshop Room, Level 5, UCFM Tower</p>
<p>W1P3 [Onsite] Navigating Institutional Quality Assurance and Quality Enhancement: Unveiling Distinctions and Synergies Susie Schofield (United Kingdom), Qabirul Karan Abdullah (United Kingdom) Venue: Lecture Hall 1, Level 10, UCFM Tower</p>
<p>W1P4 [Onsite] More than the Sum of Its Parts: 3c + 1s in Interprofessional Education Qianhui Cheng (Singapore), Gormit Kaur (Singapore), Raymond Goy Wee Lip (Singapore), Kevin Tan (Singapore), Yeoh Ting Ting (Singapore) Venue: Workshop Room 1, Level 1, UCFM Tower</p>
<p>W1P5 [Onsite] Flip the Class Nilesh Kumar Mitra (Malaysia), Heethal Jaiprakash (United Kingdom), Norul Hidayah (Malaysia) Venue: Procedure Room, Level 8, UCFM Tower</p>
<p>W1P7 [Onsite] Ethical Uses of Artificial Intelligence for Teaching and Learning Hasnain Baloch (Malaysia) Venue: Workshop Room 1, Level 2, UCFM Tower</p>
<p>W1A7 [Onsite] Postgraduate Supervision and Mentoring in Health Professions Education Diantha Soemantri (Indonesia), Veena Singaram (South Africa), Vishna Devi Nadarajah (Malaysia) Venue: Workshop Room 2, Level 2, UCFM Tower</p>
<p>PM: 5.30 pm – 7.00 pm (+0530 GMT)</p>
<p>APME-Net 18th Niigata Meeting (By Invitation Only) Venue: Seminar Hall, Level 8, UCFM Tower and Online (Hybrid)</p>

PRE-CONFERENCE WORKSHOPS AND SPECIAL COURSES: DAY 2

Thursday 18th January 2024

Venues: *UCFM Tower, Faculty of Medicine, University of Colombo*

Special Courses | Half Day: 8.00 am – 12.00 pm (+0530 GMT)

SC1 [Onsite]

Special Course: Health Professions – Key Ideas for Teachers and Trainers (HP-KITT) - Session 2

Ronald M Harden (United Kingdom), Jeni Harden (United Kingdom), Patricia Lilley (United Kingdom)

Venue: Lecture Hall 2, 10th Floor, UCFM Tower

AM: 8.00 am – 12.00 pm (+0530 GMT)

W2A1 [Onsite]

Shifting Paradigms in Student Remediation: Empowering Competence Through Action Learning Sets

Susie Schofield (United Kingdom), Qabirul Karan Abdullah (United Kingdom)

Venue: Seminar Room, Level 8, UCFM Tower

W2A2 [Onsite]

Integrating Assessment in Basic Sciences Education

Neil Osheroff (United States of America), Kimberly B Dahlman (United States of America)

Venue: Procedure Room, Level 8, UCFM Tower

W2A3 [Onsite]

Active Engagement with Learners in Co-Creating and Collaborative Knowledge Building Using Digital and AI Technologies: Peerwise, Pharmacology Tutorials, and ChatGPT

Judy Sng (Singapore), Gavin Dawe (Singapore), Inthrani Raja Indran (Singapore), Tharindunee Jayakody (Sri Lanka), Priya Paranthaman (Singapore)

Venue: Workshop Room 2, Level 1, UCFM Tower

W2A4 [Onsite]

Reverse Role Play with Partial Simulation – Innovative Clinical Teaching in Paediatrics for Family Medicine Residents

Goh Lee Gan (Singapore), Rajeev Ramachandran (Singapore)

Venue: Workshop Room 1, Level 2, UCFM Tower

W2A5 [Onsite]

Tips and Strategies to make Manuscript Submission to an International Journal and Dissemination of Your Published Articles More Successful

Peter G M de Jong (The Netherlands), Julie Hewett (United States of America)

Venue: Workshop Room, Level 5, UCFM Tower

W2A6 [Onsite]

Faculty Development to Nurture Professional Identity of Educators in the Health Professions

Yvonne Steinert (Canada)

Venue: Lecture Hall 1, Level 10, UCFM Tower

W2A7 [Onsite]

Planetary Health in Health Professions Education (Climate Action: What's My Role)

Fathima Rizka Ihsan (Australia), Lynn Monrouxe (Australia), Jacqueline Bloomfield (Australia)

Venue: Workshop Room 1, Level 1, UCFM Tower

W2A8 [Onsite]

A Framework to Support Success and Well-Being in Health Sciences Professional Education

Michael Wilkes (United States of America), Margaret Rea (United States of America), Karl Jandrey (United States of America)

Venue: Workshop Room 2, Level 2, UCFM Tower

PM: 12.30 pm – 4.30 pm (+0530 GMT)

W2P2 [Onsite]

A Beginner's Guide to Setting Standards

John Norcini (United States of America)

Venue: Procedure Room, Level 8, UCFM Tower

W2P3 [Onsite]

Effective Use of Discussion Boards - Evidence Based Approaches to Faculty Development for Online Teaching

Qabirul Karan Abdullah (United Kingdom), Susie Schofield (United Kingdom)

Venue: Workshop Room, Level 8, UCFM Tower

W2P4 [Onsite]

Let's Shake Hands: Man-Machine Collaboration for the Training of Medical Graduates in the VUCA World

Sarmishtha Ghosh (India)

Venue: Workshop Room 2, Level 1, UCFM Tower

W2P5 [Onsite]

Integrating Artificial Intelligence into Medical Education: A Path to Future-Ready Healthcare Professionals

Alison Ledger (Australia), Bernadette Richards (Australia), Nalini Pather (Australia)

Venue: Workshop Room, Level 5, UCFM Tower

W2P6 [Onsite]

Competency Development for Self-Directed Learning in the Digital Era

Jyotsna Sriranga (India), Pushpanjali Krishnappa (India), Girija Sivakumar (India)

Venue: Workshop Room 1, Level 2, UCFM Tower

W2P7 [Onsite]

Clinical Ethics Capacity Development in the Asia-Pacific Region: Clinical Ethics Round for Clinicians, Ethicists and Researchers Interested in Education

Olivia Ngan (Hong Kong S.A.R.), Wai-Tat Wong (Hong Kong S.A.R.), Pacifico Eric Calderon (The Philippines)

Venue: Workshop Room 2, Level 2, UCFM Tower

W2P8 [Onsite]

Training of High Performing Individual Members (TEAMS): Solutions to Real World Challenges?

Predeebha Kannan (Singapore), Cindy Ching Siang Lee (Singapore), Richard Meng Kam Lee (Singapore)

Venue: Workshop Room 1, Level 1, UCFM Tower

OPENING CEREMONY

Thursday 18th January 2024

Venue: *Main Auditorium, Ground Level, Faculty of Medicine, University of Colombo, Sri Lanka*

6.00 pm - 6.30 pm	Guests Take Their Seats
6.30 pm - 6.40 pm	Lighting of the Oil Lamp
6.40 pm - 6.45 pm	Welcome to Sri Lanka
6.45 pm - 6.50 pm	Address by Co-Chairperson, APMEC 2024 Dr Dujeepa D Samarasekera Senior Director, Centre for Medical Education (CenMED) Yong Loo Lin School of Medicine, National University of Singapore National University Health System
6.50 pm - 6.55 pm	Dean's Address: Faculty of Medicine, University of Colombo Co-Chairperson, APMEC 2024 Professor Vajira Dissanayake
6.55 pm - 7.00 pm	Dean's Address: Yong Loo Lin School of Medicine, National University of Singapore Professor Chong Yap Seng
7.00 pm - 7.10 pm	Address by Vice Chancellor, University of Colombo Senior Professor (Chair) H D Karunaratne
7.10 pm - 7.20 pm	Cultural Performance
7.20 pm - 7.30 pm	Address by the Guest of Honour Hon Dr Ramesh Pathirana Minister of Health, Sri Lanka
7.30 pm - 7.45 pm	Address by the Chief Guest Hon Dr Susil Premajayantha Minister of Education, Sri Lanka
7.45 pm - 8.15 pm	Opening Keynote Address AI and Health Professions Education: "Somewhere Over the Rainbow" Professor Ronald M Harden Emeritus Professor of Medical Education, University of Dundee, United Kingdom Editor, Medical Teacher
8.15 pm - 8.25 pm	Cultural Performance
8.30 pm - 9.00 pm	Reception

MAIN CONFERENCE: DAY 1

 Friday 19th January 2024

 Venue: *Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka*

8.00 am – 9.00 am	Registration			
Time	Lotus Hall	Jasmine Hall	Cinema Hall	Tulip Hall
9.00 am – 10.00 am	Symposium 1 Developing an Academic/Clinician Scientist	Symposium 2 AI, Medicine and Medical Education in Resource-Constrained Settings	Symposium 3 Open Education in Health Professions Education: Journeying Beyond Open Access	APME-Net Meeting (By Invitation Only)
	Developing Academic Surgeons and Physicians in Pakistan: Opportunities and Challenges Yawar Hayat Khan, Pakistan SL Perspective - A Roadmap for a Resource Limited Environment Aloka Pathirana, Sri Lanka Fantastic Beats and Where to Find Them: Reflections of a Medical Ethics Scholar and Teacher Pacifico Eric Calderon, The Philippines Sri Lankan Clinical Research: A Personal Odyssey B J C Perera, Sri Lanka Chairperson: Shervanthi Homer-Vanniasinkam	Leveraging AI for Enhanced Training of Primary Health Professionals in Timor-Leste Lois Hong, Timor-Leste Preliminary Findings from a Scoping Review of Machine Translation in Medical Education, and Its Limitations in Low-Resource Languages Raphael Merx, Indonesia Chairperson: Lois Hong	Understanding Open Education Tao Le, United States of America Trends in Teaching and Learning with OER: from Microlearning to Microscholarship Goh Poh-Sun, Singapore Collaboration Models for Open Education Practices Ly Huu Tuan, Viet Nam The Role of Learners in Open Education Kenneth Lam, Taiwan Chairperson: Tao Le	
10.00 am – 10.30 am	Morning Tea Break: Lavender, Orchid, Cinema Lounge			
Time	Lotus Hall	Jasmine Hall	Cinema Hall	Tulip Hall
10.30 am – 11.30 am	Symposium 4 Curriculum Development in the Era of Technology	Symposium 5 Nursing Education and Credentialing	Panel Discussion 1 Education Leadership in a Digital Era	
	Teaching Basic Sciences in the Era of Technology Levente Kiss, Hungary	Nursing Education and the Landscape of International Accreditation	Chen Zhi Xiong, Singapore Pandula Siribaddana, Sri Lanka	

Programme at a Glance

	<p>How Can Technology Assist to Enhance Medical Training Institutions Vishna Devi Nadarajah, Malaysia</p> <p>Use of Technology to Develop Future Faculty Susie Schofield, United Kingdom</p> <p>Leveraging on Technology to Improve Clinical Skills and Reasoning Lau Tang Ching, Singapore</p> <p>Chairperson: Chandu de Silva</p>	<p>Nell Ard, United States of America</p> <p>NCPD and the Future of Learning and Professional Practice Jennifer Graebe, United States of America</p> <p>Bolts and Nuts in Preparing for Nursing Programme Accreditation Lydia Lau Siew Tiang, Singapore</p> <p>Chairperson: Sudath Warnakulasuriya</p>	<p>Neil Osheroff, United States of America</p> <p>Peter G M de Jong, The Netherlands</p> <p>Subha Ramani, United States of America</p> <p>Kimberly B Dahlman, United States of America</p>	
11.30am – 11.45 am	Wellness Break			
Time	Lotus Hall	Jasmine Hall	Cinema Hall	Tulip Hall
11.45 am – 12.15 pm	<p>Plenary 1</p> <p>AI in Education: A Futuristic Vision and a Pragmatic Approach Chinthaka Balasooriya, Australia</p> <p>Chairperson: Shyam Fernando</p>	<p>Plenary 2</p> <p>Crafting an Academic Career: A Clinician-Scientist's Perspective Shervanthi Homer-Vanniasinkam, United Kingdom</p> <p>Chairperson: Anuja Abayadeera</p>	<p>Plenary 3</p> <p>Teaching Biomedical Sciences Neil Osheroff, United States of America</p> <p>Chairperson: Piyusha Atapattu</p>	
12.15 pm – 1.45 pm	Lunch Break: Sapphire Banquet Hall			
Time	Lotus Hall	Jasmine Hall	Cinema Hall	Tulip Hall
1.45 pm – 2.45 pm	<p>Symposium 6</p> <p>Enhancing Education Through the Use of AI</p> <p>Enhancing Education Through the Use of AI: An Exciting, Essential and Engaging Journey Ronald M Harden, United Kingdom</p> <p>Enhancing Education Through the Use of AI: Practical Steps to Make a Meaningful Start Chinthaka Balasooriya, Australia</p>	<p>Symposium 7</p> <p>Clinical Sciences and the Human Being - the Waves in Modern Technological Advances</p> <p>Human-Centered AI in Healthcare Nathasha Luke, Singapore</p> <p>Next Generation MBBS Graduates - The Context of AI in Anatomy Satish R Lakshminarasappa, Singapore</p>	<p>Free Communication Finale</p> <p>Session 1</p>	

	<p>Clinical Education and AI Subha Ramani, United States of America</p> <p>Challenges of Using AI In a Developing Country Context Aloka Pathirana, Sri Lanka</p> <p>Chairperson: Chinthaka Balasooriya, Ronald M Harden</p>	<p>Embodying Humanism in Medical Science Education Ann Toh, Singapore Celestial T Yap, Singapore</p> <p>Technology, Ideals and Values in Medical Education Goh Yaw Chong, Singapore</p> <p>Chairperson: Celestial T Yap</p>		
2.45 pm – 3.15 pm	Afternoon Tea Break: Lavender, Orchid, Cinema Lounge			
Time	Lotus Hall	Jasmine Hall	Cinema Hall	Tulip Hall
3.15 pm – 4.15 pm	<p>Symposium 8</p> <p>Beyond Diversity: Envisioning Inclusion in Health Professions Education Scholarship</p> <p>Voices of Health Professions Education: Describing the Published Scholarly Landscape Sophia Archuleta, Singapore</p> <p>Strategies to Promote Inclusivity in HPE Scholarship: Role of the Reviewer Halah Ibrahim, United Arab Emirates</p> <p>Strategies to Promote Inclusivity in HPE Scholarship: Role of the Scholar Shefaly Shorey, Singapore</p> <p>Strategies to Promote Inclusivity in HPE Scholarship: Role of the Editor Peter G M de Jong, The Netherlands</p> <p>Chairperson: Lee Shuh Shing</p>	<p>Symposium 9</p> <p>From the Past to the Future - A Century of Medical Education in Sri Lanka and Singapore</p> <p>Speakers: Vajira H W Dissanayake Lau Tang Ching Dinoo Keerthinanda</p> <p>Chairpersons: Lalitha Mendis Dujeepa D Samarasekera</p>	<p>Free Communication Finale</p> <p>Session 2</p>	

Programme at a Glance

4.15 pm – 4.30 pm	Wellness Break			
Time	Lotus Hall	Jasmine Hall	Cinema Hall	Tulip Hall
4.30 pm – 5.30 pm	<p>Symposium 10 Simulation Based Patient Safety Education: Engaging the Digital Learners</p> <p>Digital Natives and Changing Teaching Learning Practices Ashokka Balakrishnan, Singapore</p> <p>Adaptations to Undergraduate Interprofessional Simulation Based Learning Sophia Ang, Singapore</p> <p>Addressing Cultural and Psychological Perspectives to Improve Effectiveness of Simulation Sayaka Oikawa, Japan</p> <p>Postgraduate Patient Safety Simulation: Controlling the Learning Environment Douglas Paull, United States of America</p> <p>Game-Based Simulation: Improving Learner Engagement and Retention Alfred Kow, Singapore</p> <p>Chairperson: Ashokka Balakrishnan</p>	<p>Symposium 11 Technology-Enhanced Learning: The Perspectives of Medical Students</p> <p>Love It or Hate It: Artificial Intelligence in Support of Student Learning Michelle Lam, Hong Kong S.A.R.</p> <p>Revolutionizing Medical Education: Bridging the Gap Between Traditional and Digital Learning in Medical Schools Kenneth Lam, Taiwan</p> <p>Fostering Student Growth: Leveraging Technology for Effective Assessment and Continuous Improvement Sharif Mohammed Sadat Bangladesh</p> <p>Technology in Supporting Student Collaborative Practices Kosha Gala, India</p> <p>Chairperson: Kenneth Lam</p>	<p>Panel Discussion 2 Blending Human Touch with Technology: The Future of Gender Based Violence Training in Healthcare Using AI Driven Platforms</p> <p>Anna Zatorska, United Kingdom</p> <p>Johann Malawana, United Kingdom</p> <p>Derek Gallen, United Kingdom</p> <p>Sarah Malawana, United Kingdom</p> <p>Sajade Kitchilan, Sri Lanka</p>	Judges' Meeting (By Invitation Only)
7.00 pm - 10.00 pm	Conference Dinner Venue: Galle Face Hotel, Colombo			

MAIN CONFERENCE: DAY 2
Saturday 20th January 2024
Venue: Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

8.00 am – 9.00 am	Registration				
Time	Lotus Hall	Jasmine Hall	Cinema Hall	Tulip Hall	
9.00 am – 10.00 am	Symposium 12 Humanitas: Transformative Learning in Action	Symposium 13 Teaching and Learning with Generative AI	Symposium 14 Widening Access to Medicine in the Asia Pacific - A Regional Focus	Medical Education in Sri Lanka, the Way Forward	
	Philosophy, Origins and Concepts: Humanitas Panduka Karunanayake, Sri Lanka From Concept to Practice: Humanitas in Action Santhushya Fernando, Sri Lanka Is there a Learning Theory for Humanitas? Saroj Jayasinghe, Sri Lanka Personal Reflections and the Lessons I Learnt Dinithi Fernando, Sri Lanka Chairperson: Karma Tenzin	To Use or Not to Use, that is the Question! Introduction to AI in Education Peter G M de Jong, The Netherlands Should Medical Schools Revise Learning Tools in the Generative AI Era? – Performance of ChatGPT in Physiology and Biochemistry Modified Essay Questions Extracted from Tutorials and Case-based Learning Nathasha Luke, Singapore ChatGPT as a Tool to Promote Learning in an Undergraduate Scientific Inquiry Course Ivan Low Cherh Chiet, Singapore ThatGPTeacher and Cerebral Classmate Chen Zhi Xiong, Singapore Chairperson: Chen Zhi Xiong	Overview of Current Practices in Widening Access to Medical Education Julie Willems, Australia Widening Access to Medical Education: The Australia and New Zealand Context Wendy Hu, Australia Widening Access to Medical Education: The Sri Lankan Context Gominda Ponnampereuma, Sri Lanka Widening Access to Medical Education: The Indonesian Context Diantha Soemantri, Indonesia Chairperson: Julie Willems		
10.00 am – 10.30 am	Morning Tea Break: Lavender, Orchid, Cinema Lounge				
Time	Lotus Hall	Jasmine Hall	Cinema Hall		Tulip Hall
10.30 am – 11.00 am	Plenary 4 Knowledge, Skills and Attitudes: How Clinical Teaching May Evolve in	Plenary 5 Accreditation and Quality Assurance of Nursing Schools	Plenary 6 A Systems Approach to Assessment		

Programme at a Glance

	the Era of Technology and AI			
	Subha Ramani, United States of America Chairperson: Sook Muay Tay	Nell Ard, United States of America Chairperson: Shefaly Shorey	John Norcini, United States of America Chairperson: Madawa Chandrathilake	
Time	Lotus Hall	Jasmine Hall	Cinema Hall	Tulip Hall
11.00 am – 12.00 pm	Symposium 15 When Traditions Meet with AI in Medical Education When Traditions Meet with AI in Medical Education Jen-Hung Yang, Taiwan Newly Defined Japanese National Core Competencies with a Rapidly Aging Population in an AI Era Harumi Gomi, Japan Integrating AI in Medical and Health Professions Education: Challenges for Students and Teachers in Culture with Uncertainty Avoidance Ardi Findyartini, Indonesia A Collaborative Approach to an International Advisory Committee on AI Alexis L Rossi, United States of America Chairperson: Jen-Hung Yang	Symposium 16 Coaching and Mentoring, Preparing the Next Generation of Practitioners Journey from a Clinical Teacher, Educator, Mentor to a Coach Shirley Ooi, Singapore Strategies for Implementing and Nurturing Faculty Through a Faculty Mentoring Programme Lee Shuh Shing, Singapore Mentee to Mentor - Measuring the Impact Ashwini de Abrew, Sri Lanka Chairperson: Piyanjali de Zoysa	Symposium 17 21st Century Health Professions Education Curricular AI for 21st Century Education Roshan Ragel, Sri Lanka Humanities in Health Professions Education Zarrin Siddiqui, Viet Nam Interprofessional Education Paul J Gallagher, Singapore Application in the South Asian Setting Himanshu Pandya, India Chairperson: Priyadarshani Galappatthy	Teaching and Learning in Initial Years of a Health Curriculum (By Invitation Only)
12.00 pm – 12.15 pm	Wellness break			
12.15 pm – 1.15 pm	Lunch Break: Sapphire Banquet Hall			

Programme at a Glance

Time	Lotus Hall	Jasmine Hall	Cinema Hall	Tulip Hall
1.30 pm – 2.30 pm	Symposium 18 Clinical Ethics Teaching Capacity in the Digital Era in the Asian Pacific Region	Symposium 19 Artificial Intelligence in the Implementation of Universal Health Care and Health Professions Education in the Philippines	Symposium 20 Impact of AI on Continuing Professional Development	AMEE Leadership Meeting (By Invitation Only)
	Clinician as Ethicist: from Clinical Reasoning to Ethical Reasoning Wai-Tat Wong, Hong Kong S.A.R. Researcher as Instructor: from Decision-Making to Implementation Olivia Ngan, Hong Kong S.A.R. Ethicist as Advocate: Developing Clinical Ethics Capacity in the Asia-Pacific Region Pacifico Eric Calderon, The Philippines Chairperson: Wai-Tat Wong	Scaling up of Centers for Health and Development Capacity in Operations Research and Implementation Research Arlene Samaniego, The Philippines Survey of Online Capabilities of Medical Schools in The Philippines Melflor A Atienza, The Philippines Development of Online Training for Advocates of the Protection of Women and Children Against Abuse Melflor A Atienza, The Philippines Chairperson: Arlene Samaniego	Global Standards in CPD Accreditation Graham McMahon, United States of America Implementing CPD in Resource Constrained Settings Indika Karunathilake, Sri Lanka CPD in the Continuum of Medical Education Dujeeпа D Samarasekera, Singapore Chairperson: Palitha Abeykoon	
Time	Lotus Hall	Jasmine Hall	Cinema Hall	Tulip Hall
2.30 pm – 3.00 pm	Closing Keynote Address Authentic and Inclusive Leadership: Navigating Uncertain Times Yvonne Steinert, McGill University, Canada			
3.00 pm – 3.30 pm	Closing Ceremony			

Post-Conference Workshops

Sunday 21st January 2024

9.00 am – 1.00 pm

W301 [Onsite]

Gamification of Medical Simulation Workshop

Rajan Kailainathan (Australia), Srigala Nagarajan (Australia)

Venue: Skill Lab, Faculty of Medicine, University of Jaffna, Jaffna, Sri Lanka

9.00 am – 1.00 pm

W302 [Onsite]

Teaching, Learning, Assessing and Enhancing Performance with Generative AI

Nathasha Luke (Singapore), Thilanka Seneviratne (Sri Lanka), Chen Zhi Xiong (Singapore)

Venue: Board Room, Faculty of Medicine, University of Peradeniya, Kandy, Sri Lanka

9.00 am – 1.00 pm

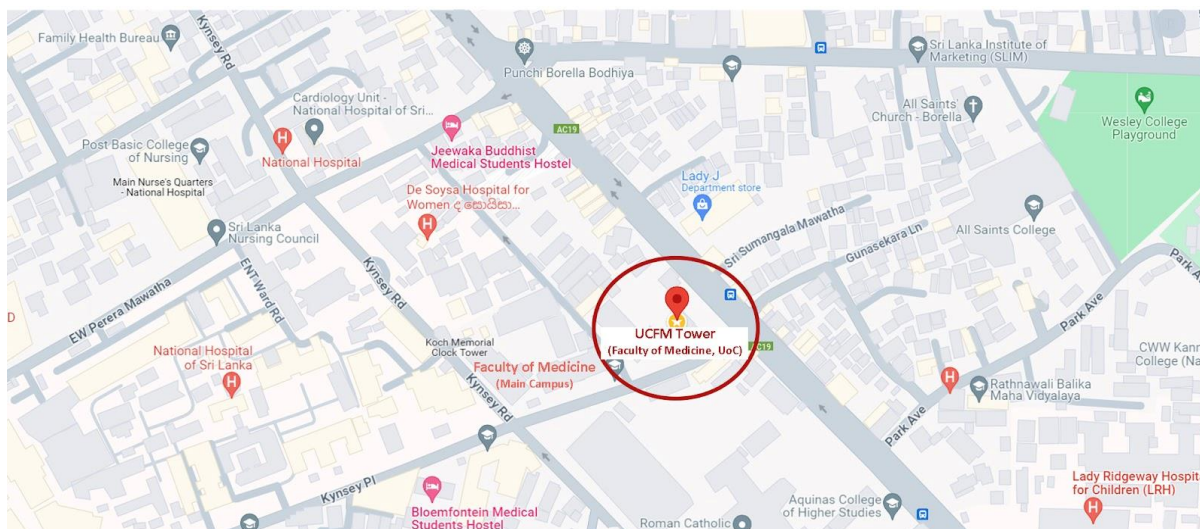
W303 [Onsite]

Designing and Applying Effective Questionnaires

Marcus Henning (New Zealand), Mataroria Lyndon (New Zealand)

Venue: Board Room, Faculty of Medicine, University of Kelaniya, Kelaniya, Sri Lanka

Venue Information

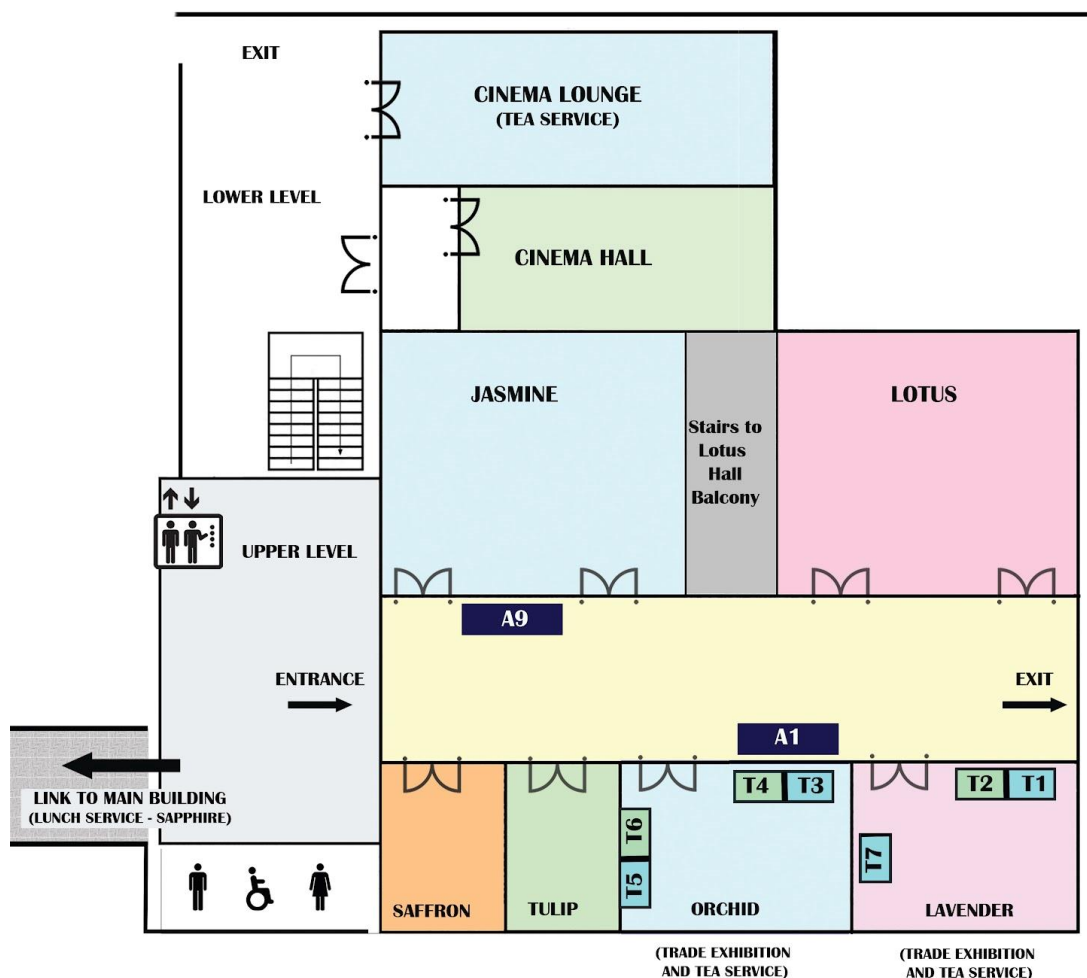


PRE-CONFERENCE WORKSHOPS

Wednesday 17th January 2024 and Thursday 18th January 2024

Ground Level
Registration
Level 1
Workshop Room 1: W1A3, W1P4, W2A7, W2P8 Workshop Room 3: W1A4, W1P1, W2A3, W2P4 Mini Auditorium 1: W1A1
Level 2
Workshop Room 1: W1A8, W1P7, W2A4, W2P6 Workshop Room 3: W1A9, W1A7, W2A8, W2P7
Level 5
Workshop Room: W1A5, W1P2, W2A5, W2P5
Level 8
Seminar Room: SC2, W2A1, W2P3 Procedure Room: W1A6, W1P5, W2A2, W2P2
Level 10
Lecture Hall 1: W1P3, W2A6 Lecture Hall 2: SC1

Venue Information



Lotus Hall

Symposium 1, 4, 6, 8, 10, 12, 15, 18
Plenary 1, 4
Closing Keynote Address
Closing Ceremony

Jasmine Hall

Symposium 2, 5, 7, 9, 11, 13, 16, 19
Plenary 2, 5

Cinema Hall

Symposium 3, 14, 17, 20
Plenary 3, 6
Panel Discussion 1, 2
Free Communication Finale Session 1, 2

Tulip Hall

APME-Net Meeting (By Invitation Only)
Teaching and Learning in Initial Years of a Health Curriculum (By Invitation Only)
Judges Meeting (By Invitation Only)
AMEE Leadership Meeting (By Invitation Only)
Medical Education in Sri Lanka, the Way Forward

POST-CONFERENCE WORKSHOPS

Sunday 21st January 2024

W301: Skill Lab, Faculty of Medicine, University of Jaffna, Jaffna, Sri Lanka



[Click Here for Location](#)

W302: Board Room, Faculty of Medicine, University of Peradeniya, Kandy, Sri Lanka



[Click Here for Location](#)

W303: Board Room, Faculty of Medicine, University of Kelaniya, Kelaniya, Sri Lanka



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Yvonne **Steinert**, Canada

Plenary Speakers

Nell **Ard**, United States of America
Chinthaka **Balasoorya**, Australia
Shervanthi **Homer-Vanniasinkam**, United Kingdom

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John Norcini , United States of America	Kevin Tan , Singapore
Sayaka Oikawa , Japan	Ann Toh , Singapore
Shirley Ooi , Singapore	Michael Wilkes , United States of America
Neil Osheroff , United States of America	Julie Willems , Australia
Himanshu Pandya , India	Wai-Tat Wong , Hong Kong S.A.R.
Priya Paranthaman , Singapore	Jen-Hung Yang , Taiwan
Claire D Pastor , The Philippines	Celestial T Yap , Singapore
Nalini Pather , Australia	Yeoh Ting Ting, Singapore
Douglas Paull , United States of America	Anna Zatorska , United Kingdom

Local Faculty

Ashwini de Abrew	Ananda Wijewickrama
Vajira Dissanayake	Sajade Kitchilan
Dinithi Fernando	Aloka Pathirana
Santhushya Fernando	B J C Perera
Tharindunee Jayakody	Gominda Ponnamperuma
Saroj Jayasinghe	Roshan Ragel
Panduka Karunanayake	Thilanka Seneviratne
Indika Karunathilake	Pandula Siribaddana
Dakshitha Wickramasinghe	

Keynote Speakers

**Ronald M Harden**

Professor Ronald Harden is Professor of Medical Education (Emeritus) University of Dundee and Editor of Medical Teacher. He is committed to promoting excellence in medical education through the development of new approaches to curriculum planning, assessment and to teaching and learning. He has published more than 400 papers in leading journals. He is co-editor of A Practical Guide for Medical Teachers and the Routledge International Handbook of Medical Education and co-author of Essential Skills for a Medical Teacher, The Definitive Guide to the OSCE, The Eight Roles of the Medical Teacher and The Changing Role of Medical Students, recently published.

**Yvonne Steinert**

Yvonne Steinert, PhD, a clinical psychologist and Professor of Family Medicine and Health Sciences Education, is the Richard and Sylvia Cruess Chair in Medical Education and the former Director of the Institute of Health Sciences Education in the Faculty of Medicine at McGill University. She is actively involved in undergraduate and postgraduate medical education, educational research, and the design and delivery of faculty development programs and activities. Her research interests focus on teaching and learning in the health professions, the impact of faculty development on the individual and the organization, professionalism and professional identity formation, and the interplay between culture and health professions education. She has written and presented extensively on topics related to faculty development and medical education and was named to the Order of Canada in recognition of her contributions to the advancement of pedagogical principles, faculty development, and new training approaches in Canadian medical education.

Plenary Speakers



Nell Ard

Dr Nell Ard is a Director with the Accreditation Commission for Education in Nursing. She has been in nursing education for 35 years teaching in a variety of nursing programs. She has been actively involved in nursing education at the regional, state, and national levels as well as publishing multiple articles and giving presentations extensively. Dr. Ard has been a Certified Nurse Educator since 2007 and a Fellow in the Academy of Nurse Educators since 2009. Dr Ard’s affiliation with the ACEN began in 2004. She has been a Director with ACEN since 2012 primarily working with programs pursuing initial accreditation.



Chinthaka Balasooriya

Chinthaka Balasooriya is the Director of Medical Education Development at the School of Population Health, UNSW Sydney, Australia. He is an internationally recognised expert in Medical Education. His expertise has been recognised by the UNSW Medicine Teaching Excellence award, the UNSW Vice-Chancellors Award for Teaching Excellence and an Australian Learning and Teaching Council Citation. He was awarded the prestigious ANZAHPE Fellowship in 2016, and served as President, Australian and New Zealand Association of Health Professional Educators (ANZAHPE) from 2018-2020. He is Chair of the ANZAHPE Fellowship Scheme and Chair of the AMEE-ASPIRE Panel on International Collaborations in Health Professional Education.



Shervanthi Homer-Vanniasinkam

grants.

Professor Shervanthi Homer-Vanniasinkam is an internationally renowned clinician-scientist who is currently a Consultant Vascular Surgeon at Leeds Teaching Hospitals NHS Trust, the Founding Professor of Surgery at the University of Warwick Medical School, and Professor of Engineering & Surgery at University College London (UK appointments). She is a Visiting Scholar at Harvard University, the Yeoh Ghim Seng Visiting Professor of Surgery at the National University of Singapore and the Brahm Prakash Visiting Professor at the Indian Institute of Science. She has published over 170 papers and book chapters, delivered more than 300 presentations, and holds a significant portfolio of research



John Norcini

John Norcini, PhD is Research Professor in the Department of Psychiatry at Upstate Medical University and a Fellow of Presence (a Center at Stanford Medical School). Previously, he held positions at FAIMER and the American Board of Internal Medicine. He has more than 200 publications, lectured and taught in more than 45 countries, and is on the editorial boards of several peer-reviewed journals. He is an honorary Fellow of the Royal College of General Practitioners (UK) and the Academy of Medical Educators and has received numerous awards including the Karolinska Prize for Research in Medical Education and the Hubbard Award.

**Neil Osheroff**

Dr Neil Osheroff is Professor of Biochemistry and Medicine, Vanderbilt University School of Medicine, and the John G. Coniglio Chair in Biochemistry. Beyond his research laboratory, he has been a medical school course director since 1990, co- leads the pre-clerkship phase, and is a Past-Director of the Academy for Excellence in Education. He is a Past-President of the Association of Biochemistry Educators and the International Association of Medical Science Educators. Dr Osheroff has received awards for mentoring, teaching, curricular design, educational leadership and service, and promoting diversity and inclusion. He is also a Fellow of the American Association for the Advancement of Science and the Association for Medical Education in Europe. He has published more than 280 papers and has presented ~400 scientific and educational talks in 38 different countries.

**Subha Ramani**

Subha Ramani is the President of AMEE. She is also a general internist and educationalist at Brigham and Women's Hospital, Associate Professor of Medicine at Harvard Medical School and Adjunct Professor, Massachusetts General Hospital Institute for Health Professions Education, in Boston, USA. She has published widely in peer-reviewed medical education journals and authored book chapters. Areas of scholarly interest include application of theory to educational practice, pedagogy and practice of clinical teaching, sociocultural factors that influence teaching, learning and feedback, mentoring relationships and the intersection of culture and education from a global perspective. Her core values are curiosity, humility, inclusion and the desire to give back to the profession.

International Faculty

**Qabirul Karan Abdullah**

Qabirul Karan Abdullah, faculty member at the Centre for Medical Education (CME), Dundee has over 15 years of teaching experience supporting under and post graduate healthcare professions students. A medical practitioner, before specialising in laboratory science (Molecular and Cellular Pathology, Cancer Genetics) and Medical Education. He is a Fellow with the Higher Education Academy, UK. Currently, Deputy Lead for online distance learning programme, Masters in Medical Education (MMEd); module lead for Clinical Teaching Suite of Speciality Modules and Linking Theory to Practice. Qabirul is also the convener of the Distance Learning Forum for the University of Dundee using his extensive experience in learning design. Main areas of research interest are related to technology enhanced learning, learning analytics and self-directed learning. He is currently co-authoring, 'Jump first understand later: a scoping review exploring discourses of effective and efficient asynchronous discussion boards in online learning for medicine and healthcare'.

**Ira Agrawal**

Dr Ira Agrawal is an instructor with the Department of Physiology and a research fellow with the Healthy Longevity translational research program at the NUS Yong Loo Lin School of Medicine. She studies neurodegeneration and ageing using computational approaches to gain a systems understanding of cell-type contributions to these processes via integrated multi-omics data analysis. At the teaching front, she teaches various introductory and advanced bioinformatics courses, neuropharmacology, and computational approaches to understanding neuronal signalling. Dr Ira holds a PhD in Bioinformatics from NUS and a M.Sc in Systems Biology from the University of Hyderabad, India.

**Sophia Ang**

Associate Professor Sophia Ang was a graduate of NUS medical school in 1990 and obtained Master of Medicine Anaesthesia in 1995. She specialised in cardiac anaesthesia and completed a year of cardiac anaesthesia training in Massachusetts General Hospital in 1998 to 1999 and another year in Texas Heart Institute in 1999 to 2000. She is accredited to do perioperative transoesophageal echocardiography by National Board of Echocardiography US in 1999. A/Prof Ang is interested in promoting and teaching patient safety and is the Vice Chairman Medical Board for Patient safety and operations of the National University Hospital with interest in projects promoting patient safety such as critical laboratory test communication, reduction of failure to rescue and proper handover of care. She is a Patient safety consultant with the Ministry of Health and a representative at the WHO High 5 Patient Safety Project.



Tasneem Anwar

Dr Tasneem Anwar is an Assistant Professor of Science (STEM) Education at the Aga Khan University's Institute for Educational Development, (AKU-IED) Karachi, Pakistan. Alongside, she is a fellow of Higher Education Academy, UK, a recipient of Higher Education Commission Pakistan (HEC)'s Best University Teacher Award 2020, a recipient of Best University Teacher Award 2020, Outstanding Teacher Awards 2023 and 2018. Dr Anwar is an inaugural member of Haile T. Debas Teachers' Academy, AKU and lead faculty, Virtual Learning Environment (VLE) project at AKU-IED, Pakistan. Dr Anwar also leads the special interest group – Critical Digital Pedagogies at AKU-IED. Dr Anwar leads various faculty development programmes within AKU, and at the national level at HEC's NAHE led National Faculty Development Programme (NFDP) for Technology Integration in Education. Her work mainly centers around professional development for STEM integration and purposeful use of both AI and non-AI infused educational technologies in teaching and learning.



Sophia Archuleta

Dr Sophia Archuleta is Head of the Division of Infectious Diseases at the National University Hospital and Associate Professor at the Yong Loo Lin School of Medicine, National University of Singapore (NUS). She is a clinician educator with a focus on postgraduate medical education and has served in multiple leadership roles in this capacity. She is the current chair of the ACGME-International Medicine Review Committee and founder of the Asia Pacific HIV Practice Course. Her clinical and educational research spans multinational collaborations with special expertise in interventional clinical trials, educational transformation and accreditation, as well as the cross-cultural experience of international clinician educators. Dr Archuleta is the recipient of various awards for academic and clinical excellence including the inaugural NUS Medicine Gender Equity Award in 2022.



Ashokka Balakrishnan

Dr Ashokka Balakrishnan MBBS MD FANZCA EDRA MHPE (Maastricht) is a Consultant Anaesthesiologist and Simulation Program Director (anaesthesia division) at National University Hospital and CenMED Associate at Centre for Medical Education (CenMED), National University of Singapore. He is the director for Masters in Health Professions Education (MHPE) program for the Maastricht-Singapore Collaboration at the Academy of Medicine, Singapore. He is also the Vice President for the Pan Asia Society of Simulation (PASSH). His special interests are obstetric and regional anaesthesia, postgraduate exam support, simulation based postgraduate and undergraduate education, Inter professional education through acute care simulation and multidisciplinary team training.



Hasnain Baloch

Hasnain Zafar Baloch is a senior manager, e-Learning with IMU. In this role, Hasnain manages and leads e- Learning team consisting of Instructional Designer, Graphic Designer, Multimedia Designer, LMS administrators, Portal Management, providing all aspects of online, blended, Open and Distance Learning (ODL), Massive Open Online Courses (MOOC) and including Instructional Design and e-Learning Strategies. He has more than twenty-five years’ hands-on experience with implementing e-Learning and technology enhanced learning in higher education. In 2013, he was ranked no.6 in the world and no. 3 in Malaysia on the “Top e-Learning Movers and Shakers’ poll based on votes from 1800+ learning professionals/educators around the word. Hasnain has passion for new technologies, social collaboration strategies and the impact they have on learning. He has done research in several key e-Learning areas, including mobile collaborative learning, Hospital Management System, Student Information System, social media, Web 2.0, educational gaming, role-play simulation, virtual classroom, Learning (Content) Management system, engagement tools, e-Learning standards. Hasnain is module Coordinator for e-Learning in Health Professions Educations in PG Certificate in Health Professions Educations. Hasnain holds a Master of Science (Computer Science) from Universiti Sains Malaysia, Penang, Malaysia.



Jacqueline Bloomfield

Associate Professor Bloomfield is a registered nurse with expertise in haemato-oncology and palliative care. She is also a qualified midwife. She has extensive senior academic leadership experience, and has worked at universities in Australia, Singapore and the UK. Jacqueline was awarded a PhD from the University of London in 2008. Her current role as Director of International Programs at the University of Sydney Susan Wakil School of Nursing and Midwifery encompasses the management of degree programs in Singapore. She is an academic lead for interprofessional education within the Faculty of Medicine and Health. Jacqueline’s research interests focus on 1 Interprofessional education and 2. Supportive care for patients with cancer and she has a substantive publication record in national and international journals and textbooks. She is co-Chief Specialty Editor of Frontiers in Medicine Health Professions Education.



Pacifico Eric Calderon

Dr Pacifico Eric Eusebio Calderon is an Associate Professor at St. Luke’s Medical Center College of Medicine-William H. Quasha Memorial, Philippines, where he is Chair of the Department of Professionalism, Medical Ethics, and Humanities. He is also Head of Clinical Ethics Services at St. Luke’s Medical Center. Dr. Calderon has relevant backgrounds in medicine, bioethics, and medical education. He is interested in the moral aspects of doctors’ health, particularly the ethics of self-care.

Chen Zhi Xiong



Zhi Xiong is an Associate Professor at the Department of Physiology and the Assistant Dean (Education) of NUS Medicine. He completed his fellowship with Ludwig Cancer Research at Karolinska Institutet and conducts research on pediatric solid tumors at NUS Centre for Cancer Research (N2CR) and KK Women’s and Children’s Hospital (KKH). Deeply interested in professional development, he obtained his Master of Health Professions Education from Maastricht University and founded Asia-Pacific Biomedical Science Educators Association (APBSEA). He is also an Associate of Centre for Medical Education (CenMED) and a Board Member of International Association of Medical Science Educators (IAMSE). Involved in the education of various health professions, Zhi Xiong is passionate about transdisciplinary learning through faculty development, medical education technology and cross-faculty collaborations. As Master of NUS LightHouse, he believes that student development through human communities and connections is essential to a complete university experience that cannot be replaced digitally.

Qianhui Cheng



Qianhui is a Senior Executive at Neuroradiology, National Neuroscience Institute (NNI), Singapore, with 12 years of research and education experience. Her academic background includes Adult Education, genetics, and Nutrition. With an interest in injecting gamification in learning and technology-enhanced learning, she is currently involved in the development of an innovative multiplayer game with an interprofessional radiology team. Qianhui hopes her passion continues to drive innovation in the field of education and interprofessional collaboration.

Goh Yaw Chong



Dr Goh Yaw Chong, MBBS (Singapore), FRCSEd (General Surgery), PhD (Edinburgh) Mount Elizabeth Hospital; Singapore General Hospital; and Department of Physiology Yong Loo Lin School of Medicine, National University of Singapore. Dr Goh Yaw Chong is a Senior Consultant general surgeon at Mount Elizabeth Hospital, with subspecialties in gastrointestinal and laparoscopic surgery, advanced endoscopy and endoluminal therapy. He is also Visiting Senior Consultant at the Department of Upper Gastrointestinal and Bariatric Surgery at Singapore General Hospital (SGH), and Adjunct Assistant Professor at the Department of Physiology, Yong Loo Lin School of Medicine, NUS. His previous appointments include: Director of Gastrointestinal Oncology (SGH), Vice-President and Honorary Secretary of the College of Surgeons, Singapore. He also served as a core faculty of the SingHealth Residency Surgery Program. He is the recipient of several awards including the Clinician Scientist Scholarship from the National Medical Research Council, Long Service Award from Singapore General Hospital, Outstanding Faculty Award for Singhealth Residency Program, and Dean’s Teaching Excellence Award from Yong Loo Lin School of Medicine, NUS. In addition to surgical practice, he is actively engaged in medical education and academic collaborations. He is currently an office holder at the Academy of Medicine, Singapore.

**Kimberly B Dahlman**

Kim Dahlman, PhD is Associate Professor of Medicine, Director of the Innovative Translational Research Shared Resource, and Immersion Phase Co-Director of Curriculum 2.0 at Vanderbilt University School of Medicine (VUSoM). Dr. Dahlman is President of the Association of Biochemistry Educators and is the Program Chair for the 2024 International Association of Medical Science Educators (IAMSE) Conference. She was elected to the Vanderbilt Academy for Excellence in Education and awarded the Denis M. O'Day award for Team Implemented Curriculum (VUSoM), the Early Career Award for Excellence in Teaching and Innovation (IAMSE), and the Stephen Abrahamson Award for Innovation

(Keck SoM).

**Gavin Dawe**

Gavin Dawe is Head of Department and Associate Professor in the Department of Pharmacology, Yong Loo Lin School of Medicine, National University of Singapore (NUS Medicine), Singapore. He received his BSc (Hons) in Neuroscience from the University of Edinburgh (UK), his PhD in Pharmacology from King's College London (UK), and his Master's in Medical and Health Professions Education from Eastern Virginia Medical School, Norfolk, VA (USA). At NUS Medicine, he currently serves as Director of the second-year undergraduate medical curriculum and as a member of the Curriculum Implementation Taskforce, Undergraduate Curriculum Committee, Faculty Assessment

Committee, Medical Education Technology Enterprise Committee, Collaborative Learning Cases Committee, Continuing Education Training Workgroup, and Taskforce for Future Enhancement to the Curriculum. He teaches Pharmacology to Medicine, Dentistry, Nursing, Pharmacy and Life Science students and is an advocate for innovative technology used in teaching.

**Peter G M de Jong**

Peter de Jong is a strategic advisor and senior researcher in the field of Technology Enhanced Learning at Leiden University Medical Center in The Netherlands, where he leads a team for the development, implementation, and support of learning materials and where he provides strategic advice in the field of technology enhanced learning. His research interest is in the field of Online and Blended Learning in medical education, and the use of Mixed and Virtual Reality applications. He authored several articles on the topic of the use of computers in education and online learning, and presented numeral oral, poster and workshop presentations. Peter is an active member of IAMSE (International

Association of Medical Science Educators) and has been Editor-in-Chief of the association's journal Medical Science Educator since 2010. He currently serves as the President-Elect of the organization and will take office in January 2024.



Syeda Sadia Fatima

Dr Sadia Fatima is an Associate Professor & Chair of the Haile T Debas Teachers Academy at Aga Khan University, Pakistan. Her research interests are genetics, epigenetics of metabolic syndrome and technology enhanced learning. Dr Fatima has authored over 90 peer-reviewed papers, 4 books, and has supervised numerous undergraduate and graduate students. She is a member of Pakistan Physiological Society, International Society for Developmental Origins of Health and Disease where she serves as deputy chair of the professional development committee. Dr Fatima has organized and conducted over 100 workshops on innovation in teaching, learning and assessment methods such as flipped classrooms, Pecha Kucha, open book exams, online assessments, team-based learning, digital tools, and artificial intelligence (AI) in medical education and research. She has received numerous honors and awards including Excellence in Teaching Award (2017, 2022), Team Based Collaborative Award for Teaching (2022,2023) and Mid-Career Researcher award (2023).



Ardi Findyartini

Dr Ardi Findyartini is graduated from the Faculty of Medicine Universitas Indonesia (HUMI) in 2002. She completed the doctoral program at Melbourne Medical School Faculty of Medicine, Dentistry and Health Science in 2012. She has been teaching in undergraduate and postgraduate programs in medical education and mentoring students and graduates in conducting research in medical education. She’s been very active in conducting workshops for faculty development in medical education in the FMUI and in other institutions in Indonesia and a panel member for ASPIRE excellence in faculty development since 2014. She authored and co-authored several international publications in peer-reviewed journals and conferences. She’s also been involved as the reviewer of national and international medical education journals. Her research area of interest includes professional development, faculty development, clinical reasoning and clinical teaching, inter-professional education, curriculum development, and socio-cultural factors underpinning approaches in medical and health professions education.



Kosha Gala

Kosha Gala is a medical doctor from the Maharashtra Institute of Medical Education and Research, Pune, India; with four years of experience in the field of medical education and meaningful student engagement with the system on a local, national, regional, and international level. She stepped into the role of the Liaison Officer for Medical Education Issues at the International Federation of Medical Student Associations (IFMSA) after working as the Program Coordinator in Teaching Medical Skills in the previous year, representing 1.5 million medical students. She has developed an interest in Educational Strategies, Teaching and learning styles, Accreditation and Quality Assurance, surgery education, and Research in Medical Education. She has coordinated 11 projects in medical education with an outreach of more than 12,000 medical students at local, national, and regional levels. Her passion for capacity building has led her to become an IFMSA-certified Medical Education Trainer.



Paul J Gallagher

Professor Gallagher is Deputy Head-Clinical of the NUS Department of Pharmacy which by discipline (Pharmacy and Pharmacology) was ranked 10 by QS (2023). Prof. Gallagher's achievements at NUS to date include the redesign of the flagship undergraduate professional pharmacy degree programme; approval for an international Master of Clinical Pharmacy which will be offered across the ASEAN region (from AY2024-25); worked with senior management across the Yong Loo Lin School of Medicine, Faculty of Dentistry, and Alice Lee Centre for Nursing to design and implement a Common Curriculum for Healthcare Professional Education (CCHPE) – a unique initiative in interdisciplinary education-spearheaded by the President of NUS. Prof. Gallagher is also working closely with the Singapore Pharmacy Council and the Chief Pharmacist Office (Ministry of Health) in the reimagining of pre-registration-the EPA-based redesigned programme will commence in May 2025. Prof. Gallagher is leading as a PI on a clinical trial across Singapore which is evaluating clinical, humanistic, and economic outcomes of a pharmacist-centric collaborative care model and findings to date have been disseminated in high-impact journals. Prof. Gallagher is a research collaborator on a Saw Swee Hock School of Public Health funded research project which is evaluating the impact of the aforementioned CCHPE. Prof. Gallagher was previously the Head of Pharmacy (2010-2018) of the RCSI University of Medicine and Health Sciences (Ireland) where he is now a Visiting Professor (June 2023-July 2026). Prof. Gallagher is a senior promotions assessor for the Faculty of Pharmacy, Universiti Malaya (Malaysia) (2021-date). Before Prof. Gallagher re-joined academia in 2005, he had established a pharmacy and medical centre in Dublin (Ireland). He is a graduate of Trinity College Dublin (Ireland) and University College London where he obtained his PhD and MBA post-graduate degrees respectively. In 2016, Utrecht University (Netherlands) and subsequently in 2019 the International Pharmaceutical Federation (FIP) recognised him for his contributions to academic pharmacy practice. Prof. Gallagher is a member of the FIP Global Data Observatory and Academic Institutional Membership (Wester-Pacific region). Prof. Gallagher is a registered pharmacist in Ireland (5258).



Derek Gallen

Derek is the education Lead for medics academy. Formally the postgraduate medical dean for Wales and president of the Association for the study of Medical education. He was a founding member of the Academy of Medical Educators and was also its president. He has developed many innovative academic training programmes and is the author of several books on general practice and medical education. His current research interests are in interprofessional medical education and assessment within postgraduate curriculum. He has worked for Medics academy for the last 6 years.



Kulsoom Ghias

Dr Kulsoom Ghias is Associate Professor and Chair, and The Feerasta Family Endowed Chair in the Department of Biological and Biomedical Sciences at Aga Khan University, Pakistan. Dr Ghias was recognized as a Senior Fellow of Advance HE (previously the Higher Education Academy of United Kingdom) in 2017. Dr Ghias has held several educational leadership positions in the AKU Medical College; she was the departmental Vice Chair for Undergraduate Medical Education (UGME) from 2011 – 2014, chaired the UGME Year 1 Sub-Committee from 2008 – 2011 and co-chaired the UGME Curriculum Committee from 2011 – 2018. She is a member of the inaugural AKU Haile T. Debas Teachers Academy and continues to be involved in curriculum planning and implementation and in teaching across programmatic levels, including undergraduate and graduate. Dr Ghias also chairs the AMEE ASPIRE Academy.



Sarmishtha Ghosh

Sarmishtha Ghosh, PhD (physiology), has 29 years of experience in teaching & research on student stress and autonomic reactions. She has wide experience in working in three different countries, namely Nepal, India, and Malaysia, in various capacities, both academic and administrative. With MHPE from the UK, she is currently serving as a Professor in Health Professions Education, Bhaikaka University, India, and is involved in the improvement of faculty development programs. She has conducted numerous workshops both nationally and internationally. She has published original research papers in esteemed journals. Three times nominated for the Ron Harden Innovation in Medical Education, she is a reviewer for many esteemed journals. Her area of specialization is human physiology and medical / health professions education. She is a reviewer for many esteemed journals. Her area of specialization is human physiology and medical / health professions education.



Goh Lee Gan

Associate Professor Goh Lee Gan graduated from the Faculty of Medicine, University of Singapore, in 1971. He obtained his Master of Medicine in Internal Medicine, Singapore in 1976. Associate Professor Goh Lee Gan is currently a retired Professor in the Department of Family Medicine, National University Health System. He is also an Honorary Fellow and Senior Consultant in the Medicine Cluster, Department of Medicine National University Health System. He is a Past President, College of Family Physicians, Singapore, 2007 to 2011; Past President, Singapore Medical Association, 1999 to 2001; and a Past Regional President, Asia Pacific Region, World Organisation of Family Doctors, 2001 to 2007. He was awarded the Public Service Star (BBM) Singapore in 2005 for work done as Chairman of AIDS Task Force, MOH, Singapore 2001-2006. He is also the Wes Fabb Orator, Wonca Asia Pacific Region, 2009, and Screenivasan Orator, College of Family Physicians, Singapore, 2000. He has to-date published 78 papers that are indexed in PubMed. Two of these are on Child Health.



Goh Poh-Sun

Dr Goh Poh-Sun 吳宝山 MBBS(Melb), FRCR, FAMS, MHPE(Maastricht), FAMEE Associate Professor, Department of Diagnostic Radiology, Yong Loo Lin School of Medicine (YLLSOM), National University of Singapore (NUS) Senior Consultant, Department of Diagnostic Radiology, National University Hospital (NUH), National University Health System (NUHS) Associate Member, Centre for Medical Education, YLLSOM, NUS Member, AMEE TEL (Technology Enhanced Learning) Committee (since 2011) Poh Sun is a Clinical Radiologist at NUHS/YLLSOM@NUS and has worked at NUH since 1989. He is also a Medical Educator, with Masters in Health Professions Education (MHPE) from Maastricht University (2012); with deep passion for both eLearning/Technology enhanced Learning and Faculty Development - locally and internationally. Dr Goh is formally trained as, and is an in-house Coach at YLLSOM.



Harumi Gomi

Dr Harumi Gomi graduated from Okayama University Medical School in Japan. She completed her residency in internal medicine at Mount Sinai Beth Israel, New York, and a fellowship in infectious diseases at the University of Texas-Houston. She obtained her master’s degree in public health from Johns Hopkins University and her master’s degree in health professions education from Maastricht University. Her international activities include the Secretary of the Continuing Professional Development Committee, the Association for Medical Education in Europe, and the Governor of the American College of Physicians Japan Chapter. Nationally she serves as a Board Member of the Japan Society for Medical Education, a Member of the National Board Examination Committee of the Ministry of Health, and a Member of the Revision Committee for the Model Core Curriculum for Medical Education, Ministry of Education.



Raymond Goy Wee Lip

Associate Professor Goy is a Senior Consultant Anaesthesiologist and Deputy Campus Education Director (Postgraduate Education) at the KK Women’s and Children’s Hospital. He obtained his postgraduate certification (Master of Medicine Anaesthesia, Singapore and Fellowship of the Australian and New Zealand College of Anaesthetists) in 2003, and Masters of Health Professions Education (Maastricht) in 2017. His medical education research interests include reflective learning and practice, complex learning, work-based assessment and feedback. He is a member of the SingHealth Interprofessional Collaborative Practice (IPCP) Taskforce.



Jennifer Graebe

Jennifer is the Director of the NCPD and Joint Accreditation programs at the ANCC. Jennifer has her Master of Nursing from Drexel University, her baccalaureate degree in nursing from Villanova University, and a certificate in business from Johns Hopkins University, and is DrPH candidate in education and public health and co-investigator with the Global Strategic Operatives for the Eradication of Human Trafficking. She serves on the Competency Based Education Network Board of Directors (BOD), Academy for Forensic Nursing BODs and is chair of the Alliance Board Nominating Committee. Jennifer is faculty at Capella University and Villanova University, is a published author, and an associate editor for the Journal of Continuing Education.



Jeni Harden

Dr Harden is a Reader in Health in Social Sciences with 30 years’ experience of teaching and research in higher education. She is Director of Quality at Edinburgh Medical School and the College of Medicine and Veterinary Medicine (CMVM) Lead for Equality, Diversity and Inclusion. Dr Harden’s expertise as an educator was recognised in the award of Principal Fellow of the Higher Education Academy and the prestigious University of Edinburgh Chancellor’s Award for Teaching in 2023. Her passion for teaching and working in partnerships with students led her to co-author the book *The Changing Roles of Medical Students*.



Satwat Hashmi

Dr Satwat Hashmi is the Vice Chair Education, and The Noor Mohamed Shamji Endowed Associate Professor in the Department of Biological and Biomedical Sciences at Aga Khan University, Pakistan. She is a Fellow of Higher Education Academy, UK, an inaugural member of Haile T. Debas Teachers' Academy, AKU and recipient of Excellence in Teaching Award (2018). Dr Hashmi chaired the Respiration and Circulation Year 1 module committee (2018-2022), co-chairs the UGME Year 1 curriculum committee (2019-present), co-chairs the Institutional Biosafety Committee (2019-present) and serves as coordinator for the MPhil in BBS program AKU. Dr Hashmi teaches in undergraduate medical, MPhil and PhD courses and is involved in curriculum planning and implementation.



Marcus Henning

Marcus Henning is an associate professor and post-graduate academic advisor at the Centre for Medical and Health Sciences Education at the University of Auckland, New Zealand. The Centre provides a suite of post graduate clinical education courses. He has facilitated numerous workshops to clinical teachers in relation to developing pragmatic clinical teaching skills. He is actively engaged in research and his specific interests include: quality of life, the motivation to teach and learn, assessment, organizational behaviour, conflict management, and professional integrity. His background is in psychology, education and mathematics teaching. His PhD was in the area of educational psychology.



Julie Hewett

Julie Hewett is a graduate of Rochester Institute of Technology with a Bachelor Degree in Entrepreneurial Management. She has over 25 years of office management experience working with small organizations in the services and manufacturing industries. This broad work experience allowed Julie to develop JulNet Solutions, offering management support services to small businesses, entrepreneurs, and eventually professional non-profit associations. Since 1998 Julie has been involved in IAMSE for Association Management and Meeting Planning. In 2010 JulNet Solutions got involved in the production of IAMSE's online journal Medical Science Educator, and her office now offers Editorial Manager Support for the Editor-in-Chief. In her role within IAMSE she is also responsible for the social media strategy and outreach. Julie has led numerous workshops and presentations on the topic of the use of social media within Medical Education and as a tool for community building.



Norul Hidayah Binti Mamat

Norul Hidayah is a Senior Lecturer from the IMU Centre for Education, International Medical University. She has a Masters degree in Educational Psychology from Universiti Sains Malaysia and PhD in Educational Psychology from IIUM Malaysia. She is also the Programme Director for Postgraduate Programmes in Health Professions Education. She is actively involved in Medical education research and also involved in Faculty Development workshops.



Lois Hong

Dr Lois Hong is the clinical director of Maluk Timor, a local non-governmental organisation that advances quality in Timor-Leste's national healthcare system by capacity building and service co-delivery. Lois leads a team of 80 Timorese health professionals to deliver multidisciplinary healthcare worker training, as well as clinical services including TB screening and HIV care. Lois is a family physician from Singapore. Prior to working in Timor-Leste, Lois worked in several Singaporean polyclinics and public hospitals, as well as a stint in the INGO Helen Keller International and a local hospice in Sierra Leone. Lois has been recognised as an Obama Foundation Asia-Pacific Leader for her work in developing Timorese primary healthcare.



Wendy Hu

Wendy is Professor of Medical Education and Associate Dean (Learning & Innovation), School of Medicine, Western Sydney University. Wendy's careers in general practice, clinical and health services research have led to her focus on medical and health professions education research, scholarship and research translation. Wendy has published over 120 journal articles, books and book chapters and is principal or chief investigator on \$5.7M grants. Wendy supervises doctoral, masters, Honours and MD students and leads collaborative research with medical schools across Australia and in New Zealand, Viet Nam, Sri Lanka, China and The Netherlands. Her service on national and international accreditation and education policy bodies such as the Australian Medical Council ensures that her work has reach and impact on students, patients and the community. Her research encompasses qualitative and mixed methods participatory methods; widening participation, diversity and inclusion in medical education; educational leadership and careers; research education and capacity-building.



Halah Ibrahim

Dr Halah Ibrahim is an internist and educator involved in post-graduate and undergraduate medical education in Abu Dhabi, United Arab Emirates. She is currently an associate professor of medicine and associate dean for clinical affairs at Khalifa University College of Medicine and Health Sciences in Abu Dhabi. She is a member of several regional and international advisory committees for medical education and a member of the board of directors of ACGME-International. Dr. Ibrahim is an associate editor for the Journal of Graduate Medical Education, Deputy Editor for Teaching & Learning in Medicine, and her research interests include international medical education reform and end-of-life education & communication. She completed her internship and residency at The New York Hospital-Cornell Medical Center (currently New York Presbyterian University Hospital of Columbia and Cornell). She is a graduate of the Mount Sinai School of Medicine.



Fathima Rizka Ihsan

Rizka is a medical practitioner, pursuing a PhD at the Faculty of Medicine and Health, University of Sydney, Australia. Her research titled 'Climate Action and Professional Identities in Healthcare' will examine factors influencing health professionals' willingness to engage in climate action. This evaluation will consider the influence of climate anxiety, perceived barriers, and contextual and cultural factors among demographically and geographically diverse healthcare professionals. She holds a Master of Medical Education from the University of Colombo, Sri Lanka, and a Master's in Medical Administration from the Asia e University, Malaysia.


Kausar Jabeen

Dr Kausar Jabeen is Professor and Vice-Chair Education, in the Department of Pathology and Laboratory Medicine at the Aga Khan University, Pakistan. She is an alumna of the postgraduate program of the Aga Khan University and later did MSc in Medical Mycology from University College, London, UK. She has held several educational leadership positions in the AKU Medical College; currently she is the Vice-chair of the UGME Curriculum Committee. She is an inaugural member of the AKU Haile T. Debas Teachers Academy and continues to be involved in curriculum planning and implementation and in teaching across undergraduate, graduate and postgraduate programs. She is a recipient of outstanding teaching award (2010, 2019, 2020, 2021) by the Aga Khan University. She was also selected as University-Level Best University Teacher Award (BUTA), AKU BUTA Selection Committee in 2021.


Karl Jandrey

Dr Jandrey is a board-certified small animal emergency and critical care specialist as well as the Associate Dean of Admissions and Student Programs at the UC Davis School of Veterinary Medicine. Besides his Doctor of Veterinary Medicine degree from The Ohio State University, he completed a Master of Advanced Studies in Clinical Research at UC Davis in 2009. He studies disorders of coagulation and hemostasis in clinical dog and cat patients as well as extracurricular scholar success focused on wellbeing and resilience.


Heethal Jaiprakash

Associate Professor Dr Heethal Jaiprakash graduated with an MBBS degree from Kasturba Medical College, India. She has a Master's in Pharmacology from RGUHS, India and a Master's in Medical Education from the University of Dundee, UK, with a teaching experience of over 17 years. She is currently the Director of Learning resources at the International Medical University, KL, Malaysia and Associate Professor in pharmacology and therapeutics at the same University. She is the fellow of the IMU centre for education (ICE) and is actively involved in faculty development activities related to ICE. She teaches various undergraduate healthcare courses and Postgraduate courses in health profession education. She has won awards for her conference presentations and teaching and learning activities related to technology enhanced learning. She has numerous publications, conference presentations and Grants related to Medical Education. Medical Education, Pharmacovigilance and Medical Education are her research interests.


Rajan Kailainathan

Holding fellowships with the Australasian College of Emergency Medicine and Royal College of Emergency Medicine, Dr Rajan Kailainathan is an influential Emergency Physician at Monash Health. Spearheading the annual Emergency Medicine Symposium, he redefines education and networking. An Associate Fellow of the Royal Australasian College of Medical Administration, his practical approach aligns with solutions-driven healthcare. He advocates for quality and safety within healthcare and contributes to Dandenong and Victorian Heart Hospitals. He advances healthcare education as an Adjunct Senior Lecturer at Monash University Medical School. Involvement with the University of Vavuniya's External Advisory Board highlights his global perspective. Dr. Kailainathan's impact showcases his unwavering commitment to transforming healthcare through education, innovation, and comprehensive patient care.



Predeebha Kannan

Dr Predeebha is a Deputy Director of the Primary Care Academy (PCA), National Healthcare Group Polyclinics (NHGP) in Singapore. She obtained her MBBS(NUS), 1988; Masters in Public Health (NUS), 1996; a Postgraduate Diploma in Higher Education (PGDHE, NTU, 2006) and a Masters in Health Professionals Education (MHPE, 2006) from SHE, Maastricht University. Her areas of teaching include health and wellness coaching, mentoring, Health literacy, interprofessional learning and collaborative practice, healthcare/inter-personal communications and health professional’s education. She has a vast experience as a clinician in hospitals and primary care, a public-health practitioner and administrator in MOH and an educator in primary healthcare. She received the NHG Education leaders award in 2014. Besides teaching in PCA, she has appointments as an adjunct faculty at Singapore’s University of Social Sciences, a teaching appointment at LKC School of Medicine (2023-2025) and is the campus 1-coordinator and coach of the MHPE-Singapore programme



Gormit Kaur

Gormit has more than 40 years of nursing experience and has worked in Singapore General Hospital, KK Women and Children Hospital and is currently posted to Sengkang General Hospital. She is the lead of Interprofessional Education (IPE) under College of Clinical Nursing, SingHealth Academy. She has worked closely with the other members of the different colleges under SingHealth Academy to champion IPE. As a member of the Interprofessional Collaboration Practice Taskforce, she has facilitated on interprofessional education workshops and activities on asthma, sexual education, and ward rounds in collaboration with the medical team. She has also attended the Virtual Interprofessional Teaching and Learning (VITAL) Workshop in collaboration with the University of Toronto.



Yawar Hayat Khan

Professor Dr Yawar Hayat Khan is a dentist by profession. His career is unique in a sense that he has been involved successfully in academics and management together for the last almost 20 years. He has more than 18 years of teaching experience at both undergraduate and post graduate level. After doing his dental research masters from Queen Mary University of London he went on to do his master’s in health Professions Education from University of Maastricht, Netherlands and did his PhD in Medical Education at University of Ambrosiana, Italy. Dr Khan has presented in various conferences and hold key positions both at the national level and internationally. He is currently working as Deputy Vice Chancellor (Academics) Riphah International University. He has previously worked in different positions as Prof& HOD (Dental Materials), Asst Dean Medical Education and Administrator (Dental Hospital) at Riphah International University, Islamabad, Pakistan. He is also the Board Member & Director, Center of Excellence in Leadership, Innovation and Quality (CLIQ) at Ras Ul Khaima College of Dental Sciences (RAKCODS), UAE and one of the pioneers in launching the first ever master’s program in Dental Education Master of Science in Leadership & Dental Education (MSLDE) at RAKCODS. He is also a member of the Asia Pacific Biomedical Sciences Educators Association. He is a visiting Prof of Medical Education at the Academy of Leadership Sciences Switzerland (ALSS) and representing them as their Director for South Asia & UAE. Last but not the least he is a Member of the Harvard Business Review (Advisory Council) and a TMA certified professional. His special interests include Leadership & Management, Curriculum Development, Patient Safety in Health Care and Organizational Leadership.



See Meng Khoo

Dr Khoo is the inaugural Director of the National University Health System's Internal Medicine Residency Programme. His area of interest is professionalism and professional identity formation. Dr Khoo is the Chairman, Medical Board of Alexandra Hospital. He is a specialist in Respiratory, Critical Care and Sleep Medicine, Director of the Sleep Medicine service in the National University Hospital (NUH), and Associate Professor, NUS Medicine, National University of Singapore.



Levente Kiss

Levente Kiss is an associate professor at the Department of Physiology teaching physiology to Hungarian and foreign medical, dental and pharmacy students since 2004. Over the last decade his interest has shifted more and more from bedside cardiovascular research towards medical education related questions his core interest being curriculum development. He has helped to establish the Center for Educational Development, Methodology and Organization at the University being its director since 2018 and he is the secretary of the Hungarian Society of Medical Education and Health Sciences since 2019 and member of AMEE as well.



Alfred Kow

Associate Professor Alfred Kow is the Head & Senior Consultant of the HPB Surgery Division at the National University Hospital Singapore. His main area of interest is liver transplantation and minimally invasive HPB surgery. He is also the Clinical Director of the Management & Innovation for Longevity in Elderly Surgical (MILES) patient program at NUH. He is the Assistant Dean (Education) at NUS Medicine and ACMB (Edu) at NUH. He has received many teaching awards for teaching excellence, including the Outstanding Educator Award in NUS. He is also the Chairperson of the Medical Education, Technology & Enterprise committee. He is one of the main drivers that helps to introduce advanced technology such as virtual reality and mixed reality technology in medical education and training. He also actively looks out for gamification technology that can be used in medical training.



Pushpanjali Krishnappa

Pushpanjali Krishnappa is an academican with more than thirty years' experience as an educator. She is FAIMER Fellow from Philadelphia and has a Masters in Health Professions Education from Keele University. She heads the department of Health Professions Education, Faculty of Dental Sciences at Ramaiah University of Applied Sciences, Bengaluru, India. She has explored the changing roles of a teacher in depth and has developed several faculty development initiatives to support the teachers in their role transformation.

Raj Menon Kumar



Dr Raj Menon Kumar is a senior consultant trauma and vascular surgeon, current head of the Trauma Service, and director of the Surgical High Dependency Unit at the National University Hospital, Singapore. He is the clinical director of the National Trauma Unit, with the Ministry of Health in Singapore and was appointed Vice President of the Asian Collaboration of Trauma, a society of Asia's trauma fraternity in 2022. He has also been actively involved in undergraduate education, holding roles as a Phase Director for Undergraduate Surgery as well as actively participating and developing new curricula and programmes in undergraduate surgical education. He was previously the Associate Program Director of the General Surgery Residency Program in NUHS, and now contributes as core faculty for the programme. His teaching awards include the Dean's award and honour roll for teaching excellence, the NUHS teaching excellence award and NUHS eminent tutor award.

James Kwan



James Kwan (Senior Consultant, Department of Emergency Medicine, Tan Tock Seng Hospital, Singapore Adjunct Associate Professor, Yong Loo Lin School of Medicine, National University of Singapore Adjunct Assistant Professor, Lee Kong Chian School of Medicine, Nanyang Technological University) is a Senior Consultant in the Department of Emergency Medicine at Tan Tock Seng Hospital in Singapore. He holds academic appointments at the Yong Loo Lin School of Medicine and Lee Kong Chian School of Medicine. James is a Council Member of the College of Emergency Physicians, Academy of Medicine Singapore. He is the Immediate Past Chair of the Core Curriculum and Education Committee at the International Federation for Emergency Medicine. Prior to his moving to Singapore, James was the Academic Lead in Emergency Medicine and Assessment at the School of Medicine, Western Sydney University, Australia. James is passionate about medical education and has led curricular development in undergraduate medical and postgraduate training programmes nationally and internationally.

Satish Ramapatna Lakshminarasappa



Dr Satish R L is a Lecturer in the Department of Anatomy at National University of Singapore – Yong Loo Lin School of Medicine. He teaches Human Anatomy to medical, life science, Dental and Pharmacy students. His research interests include studying the inflammation inside the peritoneal cavity following a surgical procedure on the abdomen. He is interested in studying wound healing and Immunobiology of peritoneal wound healing. He is an executive committee member of the Singapore Neuroscience Association and Microscopic Society of Singapore. He was Mentor for the team which won the "Medical Grand Challenge 2019" the team which developed the project Kenn, a modular hand splint to provide patients with restricted movements the ability to write, type, eat and brush their teeth. He received NUS Medicine Fortitude Award in 2020. He was the Mentor and his team won the overall grand champion and best social impact award. Special Recognition Award in 2020 for being a role model to graduating medical students. His team (DrawAnat) received the "Best Video Award" during the MEGIC-2021 competition. He received "NUHS Education Collaboration Award 2022" for his collaboration with Department of Cardiothoracic Surgery and Department of Physiology. His special interests include teaching Gross and Microscopic Anatomy of the Gastro-intestinal System, Autonomic Nervous System and Neuroanatomy. He also teaches Clinical Examination skills to medical students. He enjoys education-based research. He has completed 3 international Marathons including New York City Marathon in 2007.



Kenneth Lam

Kenneth is a sixth-year medical student from the Taipei Medical University, in Taiwan. He is currently serving as Regional Director for Asia-Pacific for the International Federation for Medical Students' Associations (IFMSA), one of the world's oldest and largest student-run organizations representing 1.5 million medical students from around the globe. He was also the student representative at his school advocating for student rights and involvement. He strongly believes that youth is an essential component to the region's development and their voices bring new values and perspectives to the discussion.



Michelle Lam

Michelle Lam is a medical student from the Li Ka Shing Faculty of Medicine, University of Hong Kong with an intercalated Masters of Science in Global Health Delivery from the University of Global Health Equity in Rwanda. She has four years of experience in medical education from the local to international level and currently holds the role of Liaison Officer for Medical Education Issues at the International Federation of Medical Students Associations (IFMSA), representing 1.5 million medical students from over 130 countries around the world. She was previously appointed as the External Affairs Assistant of the Standing Committee on Medical Education International Team and has interests in technology in medical education, interprofessional education and collaborative practice, and research in medical education. As an IFMSA-certified trainer and Advocacy in Medical Education Training graduate, she is passionate about capacitating medical students to be meaningfully involved in their curriculum.



Arthur Lau

Dr Arthur Lau Chin Haeng is currently an anatomy Lecturer of NUS School of Medicine. His journey to become an educator began as the first Surgical Anatomist at Touch Surgery, focusing on the building of 3D anatomy for mobile application surgical simulation. Following that, he pursued a PhD in Anatomy Education where he explored the potential usefulness of serious games. Now at NUS, his passion strives on the continual practice and scholarship of teaching and learning in anatomy education. His research interest lies in game-based learning, learning design in technology-enhanced learning, blended learning, and gamification.

**Lydia Lau**

Associate Professor Lau is the Director of Education, PET-Clinical at the Alice Lee Centre for Nursing Studies. A/Prof Lau believes that learning involves both internal (cognitive and affective) and external (experiential and peer-supported) processes. A/Prof Lau strives to enhance students' learning experience through experimenting and applied a variety of innovative pedagogical approaches, as well as leveraging on innovative technologies to improve learning outcomes. She actively reviews the undergraduate clinical education curriculum for holistic and quality student learning based on approaches such as socio-constructivism, reflective practice and situated learning. A/Prof Lau spearheaded the development of the NUS nursing Entrustable Professional Activities (EPA) framework and other innovative education projects to improve quality and effectiveness of clinical programme. She has received more than ten grants in support for her research work, and authored/co-authored in peer-reviewed journals, and invited as speaker at various platforms such as in conferences, workshops and seminars, both locally and internationally. She has won various awards for her excellent contributions to teaching, including teaching awards "Faculty Teaching Excellence Award" and "Annual Teaching Excellence Award" bestowed by the National University of Singapore in 2014/15, 2019/20 & 2020/21 and NUHS HEROES Education Award in 2020.

**Lau Tang Ching**

Adjunct Professor Lau Tang Ching is a Senior Consultant Rheumatologist in the Division of Rheumatology, Department of Medicine in the National University Hospital. He has been appointed as the Vice-Dean (Education) of NUS Yong Loo Lin School of Medicine in June 2017 and Group Director of the National University Health System Education Office in February 2018. He graduated in 1991 from the National University of Singapore and obtained his Membership of the Royal College of Physician in United Kingdom and the Master of Medicine (internal medicine) degree in 1997. He is a fellow of the Academy of Medicine Singapore since 2001. He also holds both a Master of Medical Science degree in Clinical Epidemiology and a Doctor of Philosophy in School of Biomedical Sciences and Pharmacy, Faculty of Health and Medicine (University of Newcastle, Australia), a fellow of the Royal College of Physicians (Edinburgh) and a Graduate Diploma in Acupuncture (Singapore). His main research interests are in Osteoporosis, Pharmacoeconomic Evaluation, Medical Education and Evidence Based Medicine. He has helped to coordinate the Health Service Development Program for osteoporosis (HSDP) in 2003 to 2007 in the NHG cluster, which was successful in improving adherence and reducing the recurrent fracture rates of patients who were at high risk of recurrent fractures. He is helping to coordinate the Osteoporosis Disease Management Program (OPTIMAL), which is an extension of the previous HSDP osteoporosis program. He is currently the chairman of the National Arthritis Foundation.

**Tao Le**

Dr Tao Le is an internationally recognized expert in digital learning and student engagement in medical education. Dr. Le earned his medical degree at the University of California, San Francisco, trained in internal medicine at Yale-New Haven Hospital and completed an allergy and immunology fellowship and a masters in health sciences at Johns Hopkins University. Dr. Le has authored over 40 textbooks including the First Aid for the Boards series. He is currently chief of adult allergy and immunology at the University of Louisville and Chief Education Officer of ScholarRx, a global platform for shared medical curriculum.



Alison Ledger

Dr Alison Ledger has 2 roles at UQ Medical School in Australia, Academic Lead for Staff Development and lead for the Dynamic Learner and Educator theme in the MD program. Her relevant experience lies in developing learners who can adapt to changes in the clinical workplace, and in supporting educators to continually develop their practice. Alison is also known internationally for supporting researchers who are new to health professions education research, as a previous chair of the UK Association for the Study of Medical Education (ASME) Education Research Committee and editor of the text Starting Research in Clinical Education, released in 2023.



Cindy Ching Siang Lee

Ms Cindy is a Senior Nurse Educator who graduated with a Bachelor of Nursing (1997), University of La Trobe, Australia and obtained her Masters in Health Science (Education) in 2000 from the Faculty of Health Science (Cumberland Campus), Univ. of Sydney. She is a recipient of NHG Team Recognition award 2023- Silver (EMBRACE+), NHG Interprofessional Teaching Award, 2023, Merit Award 2022 and NHG Outstanding Nurse Teacher Award. Cindy has collaborated with peers on clinical service delivery, education and research on quality primary care. This included design and training implementation of workshop to upskill nurses to deliver Enhanced Maternal Baby Toddler and Child Surveillance (EMBRACE+) initiative. She delivered workplace-based learning and nursing practice skills towards strengthening primary care nurse workforce. She was one of the core facilitators for an Interprofessional workshop at WONCA 2023.



Richard Meng Kam Lee

Dr Richard Lee is a Senior Consultant Family Physician at the National Healthcare Group Polyclinic. He graduated from National University of Singapore in 1997 and was awarded Master of Medicine in Family Medicine (2009) and then Fellowship from College of Family Physician Singapore (CFPS) in 2011. Dr Lee became a Fellow of Academy of Medicine Singapore in 2014. He has an interest in reflection and collaborative learning in undergraduate learners and workplace setting. He completed his Master of Health Professional Education from Maastricht University (2017). Dr Lee has a passion in teaching, was awarded the NHG Teaching Award for Senior Doctor in 2018, NUS Dean's Award for Teaching Excellence for AY18/19 and also the CFPS Distinguished Educator's Award 2019. He is an adjunct Associate Professor with the Lee Kong Chian School of Medicine, Nanyang Technological University where he is the Principal Lead of Family Medicine Year 4.



Lee Shuh Shing

Dr Lee Shuh Shing is a medical educationalist in Centre for Medical Education (CenMED), Yong Loo Lin School of Medicine. Prior to joining NUS, she was a Medical Educationalist attached to the Medical Education Research and Development Unit (MERDU) in Universiti Malaya, Malaysia. After obtaining her PhD in education, she has been actively involved in MBBS curriculum planning and faculty development. She leads the Research division in CenMED in carrying out health professions education research and provides consultation to educators. She is also involved in providing research support to students as well as conducting research workshop to faculty members. Her main research interests are in teaching and learning approaches, technology in teaching and learning, student learning and qualitative research. She also has been publishing articles in medical education and author for a few book chapters.



Patricia Lilley

Pat has co-authored two books with Professor Harden: *The Definitive Guide to the OSCE*; and *The Eight Roles of the Medical Teacher*. She has been responsible for the organisation of courses for health professions educators including those delivered at APMEC, IAMSE and AMEE conferences and has contributed to the development and conceptualisation of the HP-KITT Course.



Mildred Lopez

Mildred López is the Associate Dean of Academic Affairs and a Professor at the School of Medicine and Health Sciences of Tecnológico de Monterrey. She is a Psychologist and an Engineer; she holds a PhD in Educational Innovation. She is an Associated Fellow of the Association for Medical Education in Europe (AMEE), and a Fellow of the Foundation for Advancement of International Medical Education (FAIMER). As a researcher, Mildred is a Level I Researcher in the National System of Researchers (SNI) in Mexico, and her research focuses on innovative learning environments through active learning methodologies and educational technology.



Ivan Low Cherh Chiet

Ivan is a Senior Lecturer and the Director for Continuous Education Training (CET) in the Department of Physiology, National University of Singapore (NUS). He is also the Deputy Director of Medical Education in the department. He teaches medical and life sciences students and leads curriculum design for adult learning CET courses on topics related to exercise physiology and health. He is a strong proponent of contextualized and experiential learning and has received multiple Faculty Teaching Excellence Awards as well as NUS Honour roll in Teaching Excellence. In addition to his teaching commitments, Ivan runs a Human Performance and Applied Physiology laboratory in NUS and his main research interests lie in the area of thermoregulation and fluid balance to enhance

human performance and cognition. He has a provisional patent filed for an ear-based core temperature monitoring system and has multiple publications in the field of thermal physiology and brain functions.



Matthew Low

Dr Low is a consultant emergency physician at National University Hospital in Singapore, and director of Phase IV of the undergraduate programme, deputy chair of the Faculty Assessment Committee, and co-lead for the Master of Medicine (Emergency Medicine) Part A examination on basic sciences at the Yong Loo Lin School of Medicine, National University of Singapore (NUS). He graduated with MBBS (Honours) and the Lim Boon Keng Medal from NUS Medicine, and completed emergency medicine residency training at the National University Health System (NUHS) in Singapore, receiving the Alison Gourdie Medal from the Royal College of Emergency Medicine in the United Kingdom as the best candidate in examinations for Membership. His teaching awards include the Dean's

Award for Teaching Excellence and the Special Recognition Award from NUS Medicine, and the NUHS HEROES award for sustaining and transforming education during the COVID-19 pandemic.



Nathasha Luke

Dr Nathasha Luke is a Lecturer at the Department of Physiology, Yong Loo Lin School of Medicine of the National University of Singapore, and a Resident Physician at Ng Teng Fong Hospital, Singapore. She is a clinician, educator, and researcher. She teaches undergraduate students in Medicine, Pharmacy, and Life sciences. She has multiple scientific publications in leading medical journals. She takes a lead role in Medical education research and her key research interest is in artificial intelligence in medical education.



Ly Huu Tuan

Ly Huu Tuan, born in Sep 19th, 1984, was trained in General Surgery Residency Training Program, 2011; International Fellowship program of HPB surgery in SNUBH (Korea), 2019; Specialist in GI & HPB Surgery, 2022. He is currently deputy program director of General Surgery Residency Training program, UMP, Head of Quality Assurance Unit, Faculty of Medicine, UMP and Surgeon of HPB Surgery Department, Nhan Dan Gia Dinh Hospital at HCM city



Mataroria Lyndon

Dr Lyndon is a Senior Lecturer in Medical Education in the Centre for Medical and Health Sciences Education at the University of Auckland, and co-founder of Tend Health a digitally led primary healthcare provider. He completed his Master of Public Health at Harvard University as a Fulbright Scholar and Frank Knox Fellow, and his PhD is focused on medical education. He was also awarded the Deloitte IPANZ Public Sector Young Professional of the Year.



Johann Malawana

Dr Johann Malawana is a Senior Fellow and Honorary Clinical Senior Lecturer at the UCLan with a special interest and area of research in Digital Health, Leadership in Healthcare, Education and Workforce planning in Health systems. Dr Malawana founded the HLA, a global not-for-profit that develops and delivers leadership interventions across the NHS in the UK, Europe, Asia and Africa. Dr Malawana's work includes research projects on leadership capacity and gender empowerment.



Sarah Malawana

Dr Malawana is an Academic GP based in Hertfordshire, Devon and London in the UK, a Trainer for GP trainees completing their MRCGP examinations and formerly a GP Partner for 9 years. Dr Malawana left her GP partnership role to initially lead the International Global Health Project Delivery at Medics.Academy, alongside working as an Academic in Medical Education. In September 2023 Dr Malawana became the Senior Academic Lead for the Postgraduate Programmes at Medics.Academy, being responsible for a team of nearly 20 clinical academics. Dr Malawana has also led the development of training programmes in partnership with the Royal Marsden and Guy’s and St Thomas’; NHS Trusts in London.



Graham McMahon

Graham McMahon, MD, MMSc, is the President and Chief Executive Officer of the Accreditation Council for Continuing Medical Education (ACCME®), which accredits continuing medical education (CME) providers in the US and internationally, creating a framework that supports, inspires, and motivates educators to achieve their full potential. Dr. McMahon leads initiatives to accelerate learning, change, and growth, enabling clinicians and interprofessional teams in practice to optimize their performance and continuously improve care for patients, families, and communities. In addition to his role at the ACCME, Dr. McMahon serves as an Adjunct Professor of Medicine and Medical Education at Northwestern University Feinberg School of Medicine teaching medical

students and fellows and continues to care for patients with endocrine disorders at Howard Brown Health in Chicago.



Raphaël Merx

Raphael Merx is a Product & Tech Lead at Catalpa International. In his spare time, he built tetun.org, an English-Tetun translation app used by over 100,000 users, many of them nursing and medical students. He has a keen interest in low-resource machine translation, and is preparing a PhD research proposal on this topic, with a focus on medical education.



Nilesh Kumar Mitra

Professor Dr Nilesh Kumar Mitra has been teaching anatomy to medical and health science students since last 27 years and topics of Health Professions Education to post graduate students since last 10 years. Presently he is the Dean, Teaching and Learning of International Medical University. He has worked as Associate Dean, Technology Enhanced Learning in IMU since 2020. He is a medical doctor MBBS, specialized in Masters in Surgery and Masters in Education. His area of interest is technology enhanced learning, online assessment and microlearning and he has published 35 articles in indexed journals. In his role as Associate Dean and Dean he is actively involved in conducting several faculty

development workshops at IMU centre of Education, throughout the year. He has conducted workshops at AMEE 2022, AMEE 2023 and facilitated symposium at APMEC 2022.



Lynn Monrouxe

Lynn Monrouxe is a Professor and the Academic Lead of Health Professions Education Research (HPER) at the University of Sydney. Previously the inaugural director of the country-wide Chang-Gung Medical Education Research Centre, Taiwan, she has a background in psychology and cognitive linguistics. Lynn has an international reputation for high-quality research in HPE with 130+ peer-reviewed articles and books.



Vishna Devi Nadarajah

Professor Vishna Devi Nadarajah is an experienced medical educator and biochemist at the International Medical University in Kuala Lumpur. A graduate of 3 universities across 3 countries, she values diversity as a strength in any institution. She leads the educational strategies, new programme development and international partnerships at IMU as Pro Vice Chancellor for Education and Institutional Development. She is very fortunate to work with a collaborative, committed and talented multidisciplinary team at IMU and would like to emphasize that it's the values of its people that will carry forward an institution during this unprecedented time. She has published and presented research papers in both biomedical sciences and medical education, supervises research students and reviews for indexed and international journals. Her areas of research in health professions education are in Faculty Development, Assessment and Innovative Teaching Learning Methods.



Srigala Nagarajan

Srigala Nagarajan (FACEM AFRACMA DRANZCOG MBBS/BMed Sci) is an Emergency Physician at Box Hill and Austin Emergency departments in Melbourne Australia. She is passionate about clinician-led medical education and is thrilled to be a convener of the Emergency Medicine Symposium as well as co-author of the website ERexam.org. Dr Srigala completed her undergraduate medical degree at the University of Melbourne and completed her Fellowship in Emergency Medicine. She also holds a Diploma of Obstetrics and Gynaecology as well as Associate Fellowship in Medical Administration. Dr Srigala Nagarajan is a Senior Lecturer in Critical Care at the University of Melbourne and Monash University.



Balakrishnan (Kichu) R Nair

Professor Kichu Balakrishnan Nair AM is Professor of Medicine and Associate Dean at the University of Newcastle School of Medicine and Public Health and Director for the Centre for Medical Professional Development within the Hunter New England Health District, Australia. He is a widely respected clinician, researcher and teacher whose contributions to clinical practice and medical education were recognised by the Australian Government in 2009 with an Order of Australia (AM) medal. In collaboration with the Australian Medical Council, Prof Nair developed the Workplace Based Assessment Program for other International Medical Graduates. It has changed the way international doctors are assessed in Australia. Prof Nair serves as a Senior Examiner and Member of the Board of Examiners for the Australian Medical Council, as a member of the National Panel of Examiners for the Royal Australasian College of Physicians. Prof Nair has over 130 publications, written book chapters for six textbooks and published his own books “Problem Based Physical Examination” and “Problem based Geriatric Medicine “. He is the Director of Australian Community of Practice in Research in Dementia based at the Hunter Medical Research Centre Prof Nair has received over 10 million Dollars in research funding. He is the recipient of ANZAME award for Medical Education and the Medal from the Royal Australasian College of Physicians for services to the College.



Olivia Ngan

Olivia Ngan (Research Assistant Professor, Medical Ethics and Humanities Unit, University of Hong Kong; Research Fellow, Centre for Medical Ethics and Law, University of Hong Kong), has a multidisciplinary background in neuroscience, bioethics, and public health. She co-ordinator lead of the medical ethics and law curriculum at the University of Hong Kong. In addition to her primary research interest in reproductive health, public health genomics, rare diseases, and empirical bioethics, she is passionate about cultivating ethical sensitivity among medical students. She awarded teaching development grants in the capacity of PI, leading bioethics learning activities outside the classroom. She also supervises undergraduate and postgraduate student projects related to medical ethics and medical education, such as moral distress.



Sayaka Oikawa

Dr Sayaka Oikawa is a Project Professor at Department of Innovative and Digitalized Medical Education, Akita University Graduate School of Medicine in Japan, and the Adjunct faculty of the SimTiki Medical Education Simulation Center at University of Hawaii, USA. She is a certified Emergency/Internal Medicine physician, and holds a Master of Science degree in Health Professions Education (MHPE) from the Maastricht University. She has been involved in simulation-based education for emergency response, interdisciplinary simulation, and provided faculty development for simulation educators. Her research interests are simulation-based education including cultural awareness in simulation, psychological safety in simulation, and systematic self-reflection in simulation.



Shirley Ooi

Shirley Ooi is a senior consultant at the National University Hospital (NUH) Emergency Medicine Department, Singapore. She is also the Associate Dean and Medical Clinical Education Lead in NUH, a member of the Emergency Medicine national examination committee and a member of the Accreditation Council for Graduate Medical Education - International (ACGME-I) review committee. She is the chief editor of the “Guide to the Essentials in Emergency Medicine” and co-author of “Medicolegal Issues in Emergency Medicine and Family Practice: Case Scenarios”. Her passion is in teaching/mentoring/coaching for which she has won multiple awards - the most prestigious being the 2013 National Outstanding Clinician Educator award, as well as the 2020 ACGME-I Physician Leader Award. A believer in life-long learning, she completed her Masters of Health Professions Education (MHPE) in 2017, Newfield’s Coach certification programme in May 2021 and Newfield’s Team Coaching programme in Jan 2022.



Himanshu Pandya

Himanshu Pandya is a Founding Convenor, National Faculty and National Consultant of Nodal Centre for National Medical Commission’s National Faculty Development Program, National Faculty for National Conference for Health Professions Educators, GSMC-FAIMER Regional Institute, MAHE-FAIMER International Institute for Leadership in Interprofessional Education. International Resource Faculty for SEARAME Conferences. He is a Past President Academy of Health Professions Educator, India; Member, Executive Committee, SEARAME; Recipient of Rita Sood Memorial Oration and Life Time Achievement Award (July 2023). Himanshu Pandya has thirty National and International Publications.



Priya Paranthaman

Dr Priya Paranthaman is an instructor in the Department of Pharmacology. She is a trained medical doctor specialising in Pharmacology. She has been working on ChatGPT in medical education and exploring the use of ChatGPT to create assessment questions and validating them. She has also been teaching various disciplines in healthcare professions.



Nalini Pather

Dr Nalini Pather is the Mayne Professor of Medical Education, the Director of the Academy for Medical Education, and the Academic Lead for the MD Design at UQ Medical School. Prior to this appointment, she was the Associate Dean Education Innovation for Medicine and Health, and Director of the Scientia Education Academy at UNSW (remaining an Adjunct Professor), where she led the MD Curriculum Redesign, technology innovation portfolio and several university-wide education projects including co-founder of the Health Universities Initiative. Nalini is an active researcher in medical education, and in image analysis and predictive diagnostics. Nalini is a Fellow and Board Member of ANZAHPE, HERDSA Fellow, Chair of the IFAA International Program, and Editor of Anatomical Sciences Education.



Douglas Paull

Dr Paull graduated from Duke University (zoology and medicine), General surgery (Cornell Medical Center) and cardiothoracic surgical training (University of North Carolina); Masters in patient safety leadership (University of Illinois, Chicago). Dr. Paull is a veteran of the US Air Force, and was an Assistant Professor of Surgery at Wright State University School of Medicine. Since 2008, he has worked at the VA National Center for Patient Safety, sequentially as Co-Director of Medical Team Training, Director of Patient Safety Curriculum, Director of Medical Simulation, Senior Medical Officer/Deputy Director, and Acting Chief Officer. He is the author of articles, chapters, and a book on the topics of surgery, patient safety, team training, simulation, and high-reliability health care organizations. Dr. Paull is also an Adjunct Clinical Assistant Professor of Medicine at Georgetown University School of Medicine, where he teaches graduate-level courses in patient safety leadership. He supports the ACGME as the CLER field representative.



Inthrani Raja Indran

Dr Inthrani Raja Indran is a Senior Lecturer and Education Director in the Department of Pharmacology. She also serves as the director for the NUS Medicine Office of Postdoctoral Affairs. She was recently accredited as a Newfield/Yong Loo Lin School of Medicine Associate Coach. Dr Indran has been leading a study focused on disruptive behaviour (DB) in our healthcare system, the findings of which have raised awareness at the national level on the need for effective measures to mitigate the causes and impact of DB. She has been serving in the Student Affairs team as the Assistant Dean. She also has been working on ChatGPT and PeerWise in medical education.



Rajeev Ramachandran

Dr Rajeev graduated from the University of Calicut, India in 1996. He obtained his paediatric postgraduate qualifications from the same university in 1999. He completed paediatric residency training at the University of Texas Medical Branch (UTMB) and is certified by the American Board of Pediatrics. He has received several academic awards during his training in India and USA. He has attended several national and international conferences and has presented various topics. He has published many articles and has reviewed manuscripts for peer-reviewed articles in international journals. Dr. Rajeev has completed the required advanced specialist training and received his paediatric specialist accreditation in Singapore. Adolescent medicine is the sub-specialty of interest, and he has a very special interest in adolescent eating disorders. He did clinical attachment at the Maudsley Centre for Child and Adolescent Eating Disorders as part of the Human Manpower Development Program (Team) sponsorship awarded by National University Hospital and Ministry of Health, Singapore in 2019. He and his team members were attached to South London & Maudsley and King's College Hospitals, London, UK. He is currently practicing as a Senior Consultant in the Department of Paediatrics, National University Hospital (NUH). He is Assistant Professor at the Yong Loo Lin School of Medicine, National University of Singapore (NUS). He is also Faculty at NUHS Paediatric residency program and core faculty for NUHS Family Medicine residency program. Dr Rajeev is the Site Director at NUH for the NHG-Family Medicine residency program. He is also Associate Programme Director of the NUS Graduate Diploma in Child and Adolescent Health (GDCAH).



Margaret Rea

Margaret Rea, PhD is a clinical psychologist, clinical professor in Emergency Medicine and is the Director of Student and Resident Wellness at the UC Davis School of Medicine, School of Nursing, and Office of Graduate (postgraduate) Medical Education, UC Davis Health. She oversees wellness programs and services for medical students, nursing students, residents and fellows. She is engaged in developing and providing mental health services and wellness prevention programs for students, trainees and faculty providing her with in-depth experience into the many personal and system factors that impact clinician and physician well-being.



Bernadette Richards

Dr Bernadette Richards is Associate Professor of Ethics and Professionalism in the Academy for Medical Education, UQ Medical School. Prior to that she was working on the Future Health Technologies Project at the Singapore ETH Centre, Campus for Research Excellence and Technological Enterprise (CREATE), Singapore, exploring trustworthy data governance. Bernadette is the President of the Australasian Association of Bioethics and Health Law (AABHL), and is an active researcher, having completed major projects on organ donation, consent to treatment and legal issues around innovative surgery. She is chief investigator on three current major grants, including the NHMRC Ideas Grant, 'The algorithm will see you now: ethical, legal and social implications of adopting machine learning systems for diagnosis and screening'. Her co-authored book, 'Technology, Innovation and Healthcare: An evolving relationship' was published in February 2022 and she has published over 90 journal articles, book chapters and books.



Sharif Mohammed Sadat

Sharif Mohammed Sadat, a dedicated medical student from Bangladesh Medical College, currently holds the esteemed positions of General Assistant for Asia-Pacific at the International Federation for Medical Students' Associations (IFMSA) and Vice-President for Internal Affairs at the Bangladesh Medical Students' Society (BMSS). With a noteworthy five-year tenure in IFMSA, Sadat has contributed significantly at both local and regional levels, showcasing his commitment to advancing medical education and global health initiatives. In his role at BMSS, Sadat has played a pivotal part in steering the organization toward excellence. BMSS, under his visionary leadership, has flourished into a dynamic entity with 52 local committees strategically positioned in different medical colleges. The organization boasts a vibrant community of 15,000 members spanning across 60 diverse medical colleges. Apart from being passionate in the field of medicine, he is a youth visionary leader who wants to bring a positive change in the society. He is also an advocate of youth involvement in global health initiatives and melds social growth with medical knowledge.



Arlene Samaniego

Dr Samaniego is the incumbent Vice Chancellor for Administration and Finance of the University of the Philippines Manila (UPM). She is also a full professor of anatomy at the College of Medicine in the same university. Dr. Samaniego served as the mentor of the Center for Health Development (CHD) in Region 1 during the conduct of the project “Scaling up of CHDs Capacity in Operations Research and Implementation Research” a commissioned project by the Department of Health (DOH) and Vital Strategies, Bloomberg Philanthropies from 2022-2023. She was also one of the mentors in the 2021-2022 project partnered by UP Manila, DOH and the Philippine Council for Health Research and Development entitled “Development of Online Learning and Capacity

Building Interventions in Support of Universal Health Care-Integration Sites.” As project mentor, professor, and vice-chancellor, she is able to develop and implement operations and implementation studies benefiting UP Manila’s organization, systems and processes.



Dujeeпа D Samarasekera

Dujeeпа Samarasekera trained in Health Professions Education at University of Maastricht in the Netherlands. Dujeeпа is the Senior Director of Centre for Medical Education (CenMED) at School of Medicine, National University of Singapore. He also holds the portfolios as Senior Advisor to the Centre for Development of Teaching and Learning (CDTL) at National University of Singapore and is a Senior Consultant with the Ministry of Health Singapore. He leads the School of Medicine Continuous Quality Improvement team for education and is a member of the Joint Committee to Accredit Medical Schools in Singapore by the Ministry of Health and Singapore Medical Council. Dr Samarasekera also provides leadership and expertise in the following areas - development of training courses and assessment frameworks for Medical, Nursing, Pharmacy and Allied Health programs. He is the inaugural and immediate past President of College of Clinician Educators in Singapore, Executive Board member of the World Federation for Medical Education (WFME) and the President of the Western Pacific Association of Medical Education from 2018-2022. Dujeeпа Has won many accolades such as NUS School of Medicine Special Recognition Award as a Role Model in 2015, Residents Choice Award by NUHS Residency Program, Value in Action Award awarded for excellence in innovation by National University Health System (NUHS) in 2014, MILES Award given for Mentoring Innovation and Leadership in Educational Scholarship, NUS Virtues Award for excellence and dedication by oneself contributing to service under difficult circumstances due to COVID in 2021, and NUHS Mochtar Riady Pinnacle Award for Excellence in Education in 2022. Dr Samarasekera is the Editor-in-Chief of The Asia Pacific Scholar (TAPS) journal and serves on the editorial advisory boards of a number of other international education journals. He has published widely in peer-reviewed international journals as well as authored books in education and book chapters. He is an honorary Professor and Visiting Faculty at several international universities. He holds the fellowships of Academy of Medicine Singapore and Malaysia, Academy of medical educators UK, inaugural fellow of Association of Medical education Europe and Royal College of Physicians Edinburgh.



Elisabeth Schlegel

Elisabeth FM Schlegel is a Professor, Microbiology and Immunology, and Vice-Chair, Research and IRB, at the new Western Atlantic University School of Medicine in Freeport, Bahamas. Inspired by interdisciplinarity innovation at all levels, she is curious about how basic sciences, education, and healthcare are intertwined. At WAUSM she teaches microbiology with clinicians in team settings and is experienced in coaching science educators as well as students to try new teaching methodologies. Dr. Schlegel earned both a Master of Science and a PhD (Genetics and Microbiology/ Education) from the University of Salzburg, Austria, and conducted postdoctoral studies in herpes virology at the Icahn School of Medicine at Mount Sinai in New York City. She earned an MBA from The Malcolm Baldrige School of Business at Post University in 2012, and a Master of Science in Health Professions Pedagogy and Leadership at Hofstra University in 2019.



Susie Schofield

Susie is Professor of Medical Education, Deputy Director of the Centre for Medical Education, Associate Dean at the School of Medicine and Distance Learning lead for the University of Dundee. She has developed an international reputation in healthcare professions education through her expertise in Distance Learning through the Masters in Medical Education, Quality Assurance and Technology-Enhancement across the curriculum, including faculty development and systems. She shares her infectious enthusiasm for giving agency and voice to all stakeholders, co-developing solutions not just identifying problems through her transformational leadership, whether at a meeting, through teaching or through PhD supervision.



See Kay Choong

Dr See is a senior consultant respiratory physician and Intensivist at the National University Hospital in Singapore. He is the Associate Designated Institutional Official for the National University Health System Residency Program, President of the Society of Intensive Care Medicine in Singapore, Adjunct Associate Professor at the Yong Loo Lin School of Medicine, NUS, and Postgraduate Education Director at the Department of Medicine, NUH. Dr See's expertise lies in critical care ultrasonography, artificial intelligence, medical education, and healthcare quality improvement. Dr See's academic journey includes a Bachelor of Medicine & Bachelor of Surgery from NUS, membership in the Royal College of Physicians (UK), fellowship from the Royal College of Physicians, Edinburgh, Master of Public Health from Harvard School of Public Health, Master of Health Professions Education from Maastricht University, Netherlands, European Diploma of Intensive Care Medicine, and fellowship with the College of Chest Physicians in the United States.



Pathiyil Ravi Shankar

Dr Shankar is a faculty member at the IMU Centre for Education, Kuala Lumpur, Malaysia. He has been involved with the health humanities for over 15 years and has several publications on the subject. He has been an invited speaker for various conferences and workshops on the health humanities. He has facilitated workshops on cinema education at various fora. He has over 765 publications and has reviewed over 850 manuscripts for different journals. He is a PSGFAIMER Fellow and a Fellow of the Academy of Medical Educators. He is an academic editor for PLOS One and an editorial board member of BMC Medical Education. He was among the top 2% of scientists globally for the years 2019, 2020, and 2021. He is a member of the ORCID Research Advisory Council (ORAC) and a member of the World Association of Medical Editors (WAME). His areas of research are the health humanities, rational use of medicines, pharmacovigilance, and small group learning among others. He enjoys traveling and is a creative writer and photographer.



Shefaly Shorey

Dr Shorey is an Associate Professor with tenure at Alice Lee Centre for Nursing Studies, National University of Singapore (NUS). Her research program focuses on family and women’s health. She has designed psychosocial and educational interventions for a varied group of populations. She has conducted both quantitative (e.g. randomized controlled trials, descriptive quantitative studies) and qualitative (e.g. descriptive qualitative) studies and has published more than 190 peer-reviewed papers in high-impact factor journals. She is an expert in qualitative systematic reviews and serves as an editorial board member and reviewer for renowned international peer-reviewed journals. Dr Shorey represents Singapore for the Southeast and East Asian Nursing Education and Research Network (SEANERN) and the Global Working Group (GWG) on Salutogenesis. Dr Shorey has received various awards for her academic and research excellence.



Zarrin Siddiqui

Dr Siddiqui is leading the MD Program at VinUniversity. She is a Psychiatrist with a PhD in Medical Education. Her career started as a medical educator at the WHO Collaborating Centre in the EMRO region followed by British Council and AusAID Fellowships. Before joining VinUniversity, she worked as assessment lead at the University of Western Australia for 16 years. Dr. Siddiqui has received numerous awards/nominations for Excellence in teaching and supervision. Her two projects were shortlisted for Ronald Harden Innovation in Medical Education (RHIME) internationally. As a Board member of Multicultural services Centre of Western Australia and President of Pakistanis in Australia group, she has been working in the areas of migrant health and support. Her research focuses on planning, development and implementation of global health programs with a focus on mental health.



Veena Singaram

Dr Veena Singaram is a senior lecturer and Academic Leader of Research in the School of Clinical Medicine. She is a steering committee member in the Doctoral Academy and Team Lead of the Medical Education Strategic Team at UKZN. Her qualifications include a BMMedSc, MMedSc (UKZN), and PhD in Health Professions Education (Maastricht University, Netherlands). She is a fellow of the Foundation for Advancement in Medical Education and Research (FAIMER). Dr Singaram recently received the Southern African Association of Health Educationalists Distinguished Educator Award. She has published widely in HPE and has graduated several doctoral and masters students. Dr Singaram has actively contributed to capacity building and development of HPE and research that has led to novel innovations and significant contributions to the training of healthcare professionals. Her scholarly interests include doctoral research, mentoring, technology-enhanced learning, formative assessment feedback, and collaborative learning environments within a transformative learning paradigm.



Girija Sivakumar

Dr Girija Sivakumar is basically an anatomist with 25 years of teaching and research experience in the subject concerned. Being passionate towards medical education, she has undergone various medical education technologies trainings mandated by NMC and she is a FAIMERFELLOW as well. She is the founder person of Medical Education Unit in her institution and has organized various MET programs since 2011. She has trained more than 150 faculties in her previous institution and nearly 80 faculties in the current institution. Her field of interest is innovative teaching-learning technologies and improving rural health awareness through medical and dental students.



Judy Sng

Judy Sng, PhD, is an Associate Professor (Educator Track) and Education Director (Nursing Curriculum, Digital Transformation & Extramural Courses) of Pharmacology at Yong Loo Lin School of Medicine, National University of Singapore. Judy has a doctoral degree in Neuropharmacology from Kanazawa University, Japan, where she received the Monbukasho (Japanese government) scholarship and a Bachelor of Science (Honors) from the National University of Singapore. Judy is a medical educator with strengths in innovative pedagogies. Her passion for neuroscience links brain circuitry to artificial intelligence and medical education. She is the co-developer and co-creator of the Virtual Integrated Patient and a series of educational tools related to Pharmacology.



Diantha Soemantri

Diantha Soemantri is a professor in medical education in the Faculty of Medicine Universitas Indonesia. She graduated as a medical doctor from Faculty of Medicine Universitas Indonesia in 2005, acquired Master of Medical Education from the University of Dundee in 2007 and PhD in the same field from University of Melbourne in 2013. She is now the head of Master in Medical Education Program in Universitas Indonesia and also responsible for the multi- and interprofessional education of Health Sciences Cluster in Universitas Indonesia. Since 2018, she is appointed as the vice director of medical education of the Indonesian Medical Education and Research Institute (IMERI), Faculty of Medicine Universitas Indonesia. Her research interests are student assessment, selection, reflection, and feedback, interprofessional education and collaborative practice. She has published more than 50 papers in peer-reviewed national and international journals and actively serves as a peer reviewer for various high-impact journals.



Jen-Hung Yang

Dr Jen-Hung Yang graduated from National Yang-Ming Chiao Tung University School of Medicine in 1985 and Ph.D. in 1994. He subsequently completed his dermatology residency training at Veterans General Hospital Taipei. In the past 2 decades, he played an essential role as a leader in 2 medical schools and 4 medical centers in Taiwan. Nationally he is the CEO of Taiwan Medical Accreditation Council, a senior Assessor of the Joint Commission of Taiwan, and a Medical Education Council Member of MOE. He is currently Chair of the International Affairs Committee of the Taiwan Association of Medical Education and a Member of the National Board Examination Committee of the Ministry of Examination. His international activities include the International Advisory Board of the APMEC, and Expert Advisory Panel Member of Western Pacific Association of Medical Education (WPAME). His research interests in medical education include accreditation, curriculum design, work-based assessments, faculty development, and medical professionalism & humanities.



Jyotsna Sriranga

Dr Jyotsna Sriranga is an educationist and public health dentist. Since 2007, she has been actively striving to reach the unreached and provide oral health services. She has supported more than 10,000 school children in improving their oral health condition by working on issues related to access, availability and affordability of care. As an academician, she has instilled the values of service in her students and supported the academic discussions around equity and cost effectiveness of care. As an educational researcher, she has investigated the transformation potential of community-based education programs in making learners socially.



Kevin Tan

Dr Kevin Tan is a Senior Consultant Neurologist at the National Neuroscience Institute (NNI) and Associate Professor at Yong Loo Lin School of Medicine, National University of Singapore and Duke-NUS Medical School. He completed his Fellowship in Neuroinfectious Disease and Neuroimmunology at Johns Hopkins University (2008) and Master of Science in Health Professions Education at MGH Institute of Health Professions (2016). His clinical expertise is in neuroinflammatory diseases and neurological infections. He is currently Education Director, NNI. His medical education interests are team-based learning, innovations in teaching and assessment, clinical reasoning and interprofessional education.



Ann Toh

Dr Ann Toh (MBBS, MRCPCH, GDPC StarPALS, HCA Hospice care; and Yong Loo Lin School of Medicine, National University of Singapore), Dr. Ann Toh works as a children’s hospice physician delivering family-centered whole-person care to children, adolescents and young adults with life-threatening, life-limiting illness in StarPALS, HCA Hospice Care. She also serves as a volunteer physician advocate for vulnerable people groups. As an educator, is actively involved in shaping undergraduate curriculum in the areas of community-based education for social determinants of health, social accountability, interprofessional education, global health and compassion training. She has initiated and continues to nurture a local community of practice on Humanism & Humanities in Healthcare and involved in co-creating an innovative educational model for service-learning using approaches grounded in Rogerian educational philosophy to nurture the next generation of compassionate healers of tomorrow.



Michael Wilkes

Michael Wilkes – a physician and social epidemiologist - is widely known for his creative efforts in medical education. He has enormously impacted teaching the humanistic side of being a physician and working tirelessly to include the public health and social sciences as a core part of physician’s training. He has led the way toward innovative changes in medical education across the University of California system, and in nations worldwide. He has been Vice Dean of Education at UC Davis for many years and in his current capacity as Director of Global Health, he works collaboratively across the University of California Davis’s health sciences schools (medicine, nursing, veterinary medicine, agriculture, and others) to focus on enormous global One Health problems at the intersection of human, animal, and environmental health. He has been involved in the creation of new medical schools in the US, Africa, and Asia to address the world’s crucial health needs.



Julie Willems

Dr Julie Willems is a regionally-based Australian academic with qualifications in Nursing, the Humanities, and Education. She is the Director of UCAT ANZ – one of the medical and dental student selection processes used for admission in some universities in Australia and New Zealand. She also has roles at Monash Rural Health, and in the Health and Wellbeing team on the ‘Fire to Flourish’ Project, and is a consultant in online, distance and flexible education. In addition to a long career addressing educational and digital equity, her related research interests include teaching and learning, medical curriculum, rural health, prevocational medical training, GP training, intersectionality, and disasters, trauma, recovery, and resilience. <https://research.monash.edu/en/persons/julie-willems>



Wai-Tat Wong

Dr Wai-Tat Wong is a specialist in internal medicine and critical care medicine. He works in the Department of Anaesthesia and Intensive Care and the Centre for Bioethics at the Chinese University of Hong Kong (CUHK). He provides clinical service as a consultant in the intensive care unit (ICU) of the Prince of Wales Hospital. He is responsible for undergraduate teaching in acute medicine, anaesthesia, communication skills, professionalism and medical ethics in the Faculty of Medicine at CUHK. He has been working on research projects on medical education, clinical ethics, end-of-life care in ICU, mechanical ventilation and infectious diseases. Dr Wong has been serving the Asian Pacific Bioethics Education Network (APBEN) as the chairperson since 2023.



Celestial T Yap

Celestial T Yap, PhD (Edinburgh), MBBS (Singapore), is Physiology Programme Director for Medicine, Dentistry and Pharmacy at the National University of Singapore, and Medical Science Lead of the Respiratory System-Block Workgroup, which fosters integration between medical sciences and clinical practice in respiratory medicine. She is also Principal Investigator of the Cytoskeleton and Tumour Biology Laboratory at the NUS Centre for Cancer Research, with a focus on biomedical derangements underlying cancer recurrence and spread. Previously serving in hospitals and primary healthcare, she now serves in committees overseeing mentoring, curricula and assessments. A recipient of several Education and Public Service awards at national, university and faculty levels, she is also active in spearheading educational efforts in compassionate well-being. Her experiences in education, research, clinical medicine and psychological health have engendered her endeavours to build a culture of holistic professionalism, through integrative approaches to health.



Yeoh Ting Ting

Ting Ting is passionate about health profession education. She attained her Masters in Medical Education (MMEd) degree with the University of Dundee in 2020. She is the education lead for Allied Health for the Division of Cancer Education (DCE), SingHealth and is the deputy chair of the Wellness, Educator and Professional Development arm of the College of Allied Health (CAH), SingHealth. She is also a member of the Pharmacy Residency Examination Committee, MOH. Her education effort extends to learners from undergraduate to postgraduate levels. Her educational and research interest areas include educational environment in the workplace-based settings.



Anna Zatorska

Anna works as a doctor in the United Kingdom and is interested in global health. Anna has previously worked remotely on projects addressing Gender Based Violence in Tigray, Ethiopia and has presented this work nationally and internationally. Anna will soon be starting the Improving Global Health Fellowship in Zambia and she has previously completed the Healthcare Leadership Academy Scholarship.

Local Faculty



Ashwini de Abrew

Dr Ashwini de Abrew is a Lecturer in the Department of Medical Education, Faculty of Medicine, University of Colombo, Sri Lanka, awaiting Board Certification as a Specialist in Medical Education. She has over 12 years of experience in undergraduate and postgraduate medical and health professions education work in Sri Lanka, with special interest in Curriculum Development, Staff Development and Biomedical Ethics.



Vajira Dissanayake

Professor Vajira H W Dissanayake MBBS (Colombo), PhD (Nottingham), FNASSL, FIAHSI is the Chair and Senior Professor in the Department of Anatomy, Genetics, and Biomedical Informatics and the Dean of the Faculty of Medicine, University of Colombo, Sri Lanka. He is a pioneer in Genetics, Genomics, Biomedical Informatics and Bioethics in Sri Lanka. He is a leading researcher in these fields in Sri Lanka. He has supervised 15 PhD students and 60 MSc students. He together with his students and colleagues have been the recipient of more than 40 awards for research and innovation at university, national and international levels. In recognition of his scientific achievements he was elected a fellow of the National Academy of Sciences of Sri Lanka in 2013, a fellow of the International Academy of Health Sciences Informatics in 2020, and conferred the Sri Lankan national titular honour of vidya jyothi in 2019. Prof. Dissanayake has held many leadership positions in the field of medicine. He was the President of the Sri Lanka Medical Association in 2012 and the President of the Commonwealth Medical Association from 2016 to 2019. The other leadership positions held by Prof Dissanayake include Honorary Secretary, Sri Lanka Medical Association (2000 and 2005); Founder Secretary, Health Informatics Society of Sri Lanka (1998-2000); President, Health Informatics Society of Sri Lanka (2009-2019); President, Asia Pacific Association for Medical Informatics (2019-2020); Vice President (Asia Pacific), International Medical Informatics Association (2019-2020); Board Member, Steering Committee, Forum for Ethical Review Committees in Asia and the Western Pacific (since 2010); Executive Board Member, Global Genomic Medicine Collaborative (since June 2016); Chairperson, Commonwealth Centre for Digital Health (since 2018); and Chairperson, Commonwealth Health Professions and Partners Alliance (since 2021). He is the current President of the Sri Lanka Medical Council.



Dinithi Fernando

Professor Dinithi Fernando is a professor in the Department of Physiology, Faculty of Medicine, University of Colombo. Professor Fernando’s scope of work in the area of Medical Humanities is reflected in her contribution via knowledge sharing in areas of human resilience, understanding patients through art, book reviews, adjudicating in national literary festivals, and her intellectual contributions to the Humanitas Programme.



Santhushya Fernando

Dr Santhushya Fernando is a Senior Lecturer at the Department of Medical Humanities, Faculty of Medicine, University of Colombo. She has qualified as a Consultant Community Physician while pursuing her interests in the arts. She is an author and poet, lyricist, independent film script supervisor, translator of English, Hindi, Urdu and Bengali poetry to Sinhala and English and an Indian Classical Dancer. She develops and presents the Flagship Humanitas Programme of the Faculty of Medicine.



Tharindunee Jayakody

Tharindunee Jayakody is a lecturer in the Department of Chemistry, University of Colombo. She has been coordinating and developing curriculum for a new MSc in Pharmaceutical Sciences and Technology in her new position. She graduated from National University of Singapore specialising in Neuropharmacology and continues to use the innovative tools created in Pharmacology, where she did her PhD studies in and extending to her teaching in University of Colombo.



Saroj Jayasinghe

Professor Saroj Jayasinghe is an Emeritus Professor of Medicine, University of Colombo and a Consultant Physician. He has widely published in the domains of Medical Humanities and Systems thinking in health sciences. He was the Founder Head, Department of Medical Humanities, and Faculty of Medicine of the University of Colombo and has championed Medical Humanities and the dissemination of its core ideas in Sri Lanka and the region. Professor Jayasinghe served on the Advisory Board, the Centre for Bioethics and Humanities, International Medical University, Malaysia.



Panduka Karunanayake

Professor Karunanayake is a professor in the Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Sri Lanka. In addition to his specialization in General Internal Medicine and his interest in clinical infectious disease, he has also explored the interphase of medicine with the social sciences and the humanities. He is also qualified in Sociology. As former chairperson of his Faculty's Humanities Society & Professionalism Stream, he has been part of pioneering efforts to introduce medical humanities to their curriculum.



Indika Karunathilake

Indika Mahesh Karunathilake (MBBS (Col.), CTHE (Col.), DMedEd (Dundee), MMedEd (Dundee), FCGP (Hon., SL), FHEA (UK), FCME (SL), FRCP (Edin.), is the first ever professor in Medical Education in the University of Colombo, Sri Lanka. He is currently the Head of the Department of Medical Education, Faculty of Medicine, University of Colombo and the WHO Collaborating Centre for Medical Education, Faculty of Medicine. Prof. Indika Karunathilake has conducted extensive research and authored over 50 publications in peer reviewed international journals and over 150 research presentations at international and national level. He is a recipient of President’s Award for Scientific Publications. He also serves as the editor-in-Chief of the South East Asian Journal of Medical Education (SEAJME). In his capacity as a Medical Educationist, Prof Indika Karunathilake has made significant contributions towards curriculum development, curriculum evaluation, staff development and introduction of new courses for all the Faculties of Medicine in Sri Lanka. Prof. Indika Karunathilake was the Secretary of the Sri Lanka Medical Association (SLMA) in 2008 and 2010 and the Vice President in 2014. Prof. Karunathilake is the founder President of the College of Medical Educationists. He has made significant contribution towards at the regional and global level through several leading international organization such as the World Health Organization (WHO), Asia Pacific Academic Consortium for Public Health (APACPH), Asia Pacific Action Alliance on Human Resources (AAAH) and South East Regional Association for Medical Education (SEARAME).



Sajade Kitchilan

Sajade Kitchilan presently serves as the Head of Marketing at Medics.Academy, boasting a robust 12-year career in marketing. Holding a Master's degree in Business Administration from the University of West London and possessing a CIM qualification, he brings a wealth of academic knowledge to his practical expertise. He has navigated the marketing landscapes of esteemed global brands, including Porsche, Volvo, Skoda, and Dilmah during his 12-year career in marketing. His professional journey spans diverse industries, encompassing fashion retail, manufacturing, automobile, hospitality, advertising and, most recently, healthcare education.



Aloka Pathirana

Aloka is the Chair Professor of Surgery, at the Faculty of Medical Sciences, University of Sri Jayewardenepura. He held the post of Dean of the Faculty until November 2023. Medical education has been his passion since joining the University of Sri Jayewardenepura in 1996. He initiated the skills development program of the faculty and has been actively involved in progressive changes to both undergraduate and postgraduate training programs in Surgery.



B J C Perera

B J C Perera is currently Joint Editor of the Sri Lanka Journal of Child Health, and a Section Editor of the Ceylon Medical Journal. He was the president of the Colombo Medical School Alumni Association (CoMSAA) in 2015, the President of the Sri Lanka Medical Association in 2013 and the Founder President of the Sri Lanka College of Paediatricians in 1996. He is a well-known researcher with over 140 articles written presentations in peer reviewed publications, including invited ones and editorials. B J C Perera delivered very many erudite presentations in Sri Lanka and abroad, 2 prestigious invited lectures and 12 Scientific Orations. He is also a cricketer of repute and a nationally-ranked tennis player.



Gominda Ponnampereuma

evaluation.

Gominda Ponnampereuma has served as an invited speaker cum resource person in many international symposia and conferences. Author of several journal articles and books, he sits on the editorial boards of four international medical education journals. Gominda, who has served as an advisor, visiting professor, consultant and fellow in several academic institutes of repute, is a founder co-chair of the Asia Pacific Medical Education Network (APME-Net). He is a postgraduate tutor, examiner, and resource material developer for national and international medical education courses. His research interests are in assessment (including selection for training), and curriculum development and



Roshan Ragel

Dr Roshan Ragel has been a professor since October 2017. He has been a Professional Member of the IEEE and IEEE Computer Society since 2005 and a Senior Member since 2014. Prof Ragel has co-authored over 200 peer-reviewed articles on the Internet of Things, Wearable Computing, Bioinformatics, and Artificial Intelligence and Machine Learning. He was also named the top scientist in computer science in Sri Lanka by the AD Scientific Index in 2021 and 2022 and the best scientist in CS in the country in 2023/24. At the national level, Prof. Ragel was a core Group member for Higher Education at the Presidential Task Force for Education set up in 2020. He is a member of the UGC Standing Committee on the Development of IT Infrastructure and Online Education and a member of the UGC-appointed committee to develop the Concept of Virtual / Hybrid University. He also serves as a member of the Presidential Committee to Formulate the AI Strategy for Sri Lanka, a committee formulated recently with the advancement of Generative AI. He is also a founder of the AI Forum for Academics (AIFA). This academic syndicate explores the opportunities and challenges of GenAI in Higher education based at the University of Peradeniya. Prof Roshan Ragel is an innovative educator, empowering researcher, and strategic and inspirational leader.



Thilanka Seneviratne

Dr Seneviratne is keenly utilizing simulation in medical education. She has published and presented widely in simulation, medical education, Clinical pharmacology and Allergy and Immunology in National and International forums as the first author and has presented award winning papers. As the founder vice president of the Sri Lanka Association for Simulation in Healthcare (SLASH), she organized the first ever international conference on Simulation in Sri Lanka. She is a Founder member of the Asia pacific biomedical science educators Association (APBSEA). A consistent contributor for Asia Pacific Medical Education Conference (APMEC) as a resource person and as an invited speaker. Her special interests are in Allergy and Immunology and has published widely on the subject. She is a Member of the American College of Allergy, Asthma and Immunology (ACAAI), Asia pacific Academy of Paediatric Allergy, Respiriology and Immunology (APAPARI), and European Academy of Allergy and Clinical Immunology (EAACI).



Pandula Siribaddana

Dr Pandula Siribaddana is a senior lecturer in medical education at the Postgraduate Institute of Medicine of the University of Colombo with a special interest in digital health, blended learning, AI in health and education as well as ICT4D. Dr Siribaddana presently is also a consultant to the Geneva based Health Data Collaborative of the WHO leading the efforts in the Asian region to support countries to fulfil their health data priorities. Dr Siribaddana is an Honorary Fellow of the Commonwealth Centre for Digital Health and leads the Commonwealth Digital Health Awards since 2016.



Dakshitha Wickramasinghe

Professor Wickramasinghe graduated from the Faculty of Medicine, University of Colombo with 1st class honours in 2009. He topped his batch and was awarded 5 distinctions and 7 medals including the student of the year and the university prize for general merit. He was ranked first in the order of merit in both the selection exam (February 2013) and MD (Surgery) part II examination (August 2016) and received Dr. P R Anthonis Gold Medal for Basic Sciences in Surgery, Prof P S S Panditharathne Gold Medal for Anatomy and Virasapillai Gabriel Memorial Gold Medal for General Surgery. He was promoted to the post of Professor in January 2023. His research interests include General and gastro intestinal surgery, anal sphincter dysfunction, medical education.

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Judges – Free Communication

Overall Chief Judge

Associate Professor Kow Dow Rhoon

Judges – Free Communications

Monday 15th January 2024

9.00am – 10.30am	
Free Communication Session 1 Diantha Soemantri, Indonesia* Manasik Hassan, Qatar Wayne Hodgson, Australia	Free Communication Session 2 Harumi Gomi, Japan* Upul Senarath, Sri Lanka Yera Hur, Republic of Korea
10.45 am – 12.15 pm	
Free Communication Session 3 Pavithra Godamunne, Sri Lanka* Vasanthi Pinto, Sri Lanka Mikio Hayashi, Japan	Free Communication Session 4 Indika Karunathilake, Sri Lanka* Joachim Perera, Sri Lanka Richard Meng Kam Lee, Singapore
1.30 pm – 3.00 pm	
Free Communication Session 5 Vishna Devi Nadarajah, Malaysia* Coralie Dimacali, The Philippines Thillainathan Sathanathan, Sri Lanka	Free Communication Session 6 Gominda Ponnampereuma, Sri Lanka* Anamma Kunjukunju, Malaysia Balakrishnan (Kichu) R Nair, Australia

Tuesday 16th January 2024

9.00am – 10.30am	
Free Communication Session 7 Susie Schofield, United Kingdom* Jacqueline Bloomfield, Australia Lakmali Amarasiri, Sri Lanka	Free Communication Session 8 Joachim Perera, Sri Lanka* Makoto Kikukawa, Japan Rita Mustika, Indonesia
Free Communication Session 9 Jamunarani S Vadivelu, Malaysia* Asela Olupeliyawa, Sri Lanka Predeebha Kannan, Singapore	Free Communication Session 10 Ashokka Balakrishnan, Singapore* Kosala Marambe, Sri Lanka Raymond Goy Wee Lip, Singapore

*Lead Judge for the respective session

Judges – Short Communications
Monday 15th January 2024

9.00am – 10.30am	
Short Communication Session 1 Chinthaka Balasuriya, Australia	Short Communication Session 2 Deepthi Edussuriya, Sri Lanka
10.45 am – 12.15 pm	
Short Communication Session 3 Young-Mee Lee, Republic of Korea	Short Communication Session 4 Lee Shuh Shing, Singapore
1.30 pm – 3.00 pm	
Short Communication Session 5 Pandula Siribaddana, Sri Lanka	Short Communication Session 6 Ravindran Jegasothy, Malaysia

Tuesday 16th January 2024

10.45am – 12.15pm	
Short Communication Session 7 Pete Ellis, New Zealand	Short Communication Session 8 Marcus Henning, New Zealand
Short Communication Session 9 Thiyahini Navaratinaraja, Sri Lanka	Short Communication Session 10 Ashwini de Abrew, Sri Lanka

SC1
HP-KITT Course (Health Professions – Key Ideas for Teachers and Trainers)

Course Schedule

Wednesday 17th January 2024

8.00 am – 5.00 pm

Lecture Hall 2, Level 10, UCFM Tower, Faculty of Medicine, University of Colombo

Thursday 18th January 2024

8.00 am – 12.00 pm

Lecture Hall 2, Level 10, UCFM Tower, Faculty of Medicine, University of Colombo

Course Description

The HP-KITT course serves as an introduction for those with new responsibilities for teaching and training or as an update for those with more experience as health professions educators. The course is based on a series of key education ideas with a theoretical and practical foundation that participants may wish to consider in their own teaching practice. The course is interactive with opportunities to explore different educational approaches and to share and discuss experiences with other course participants and the facilitators.

Course Design

The course has five modules. Each module is introduced with a short presentation supported by a range of education resources followed by an opportunity to explore through small group discussion the application of the ideas in various contexts.

Module 1: Key challenges in health professions education

Module 2: Key ideas for organising the learning: The curriculum

Module 3: Key ideas for facilitating learning

Module 4: Key ideas for the teacher's/trainer's toolkit: Teaching methods

Module 5: Key ideas for assessment

The key ideas presented in the course are a response to the important changes taking place in health professions education with additional demands being placed on teachers and trainers.

Course Contributors

Ronald M Harden, OBE MD FRCP(Glas) FRCS(Ed) FRCPC

Professor (Emeritus) Medical Education, University of Dundee, UK; Editor - Medical Teacher.

Jeni Harden, MA MPhil PhD PFHEA

Reader in Social Sciences and Health, University of Edinburgh, UK; Director of Quality, Edinburgh Medical School and Director of Education, Usher Institute.

Pat Lilley, BA

Managing Editor, Medical Teacher; Director, Ottawa Conferences

SC2

ESMECT: A Masterclass (Essential Skills in Clinical Teaching)

Course Schedule

Wednesday 17th January 2024

8.00 am – 5.00 pm

Workshop Room, Level 8, UCFM Tower, Faculty of Medicine, University of Colombo

Course Background

Teaching in the clinical environment is defined as teaching and learning focused on, and usually directly involving, patients and their problems. Clinical teachers have a dual role in healthcare, to provide patient care and to teach. The various settings (ward, ambulatory, urban or community) have their own distinct challenges. In these settings, essential patient care skills such as history taking, physical examination, patient communication and professionalism are inculcated, bench knowledge applied to the bedside, motivation and self-directed learning take on a new meaning. In acknowledgment of the complexity of clinical teaching, the educational strategies will employ a non-prescriptive behavioural approach to enhancing teaching skills. Participants will learn to select effective teaching strategies while taking into account many variables such as the content, the learners, and the context. Teachers at all levels of experience and expertise can benefit from an organised review of their teaching.

Who Should Participate

This course will focus on core topics in clinical teaching and is intended for clinicians who teach pre-registration students (medical / nursing etc) and post-registration trainees (physician, nursing etc) in ward, outpatient as well as simulation and conference settings. In addition, educators who organize staff development for clinical teachers will benefit from participation.

Mode of Delivery

The course will be delivered as a full-day masterclass for face-to face delegates.

The course language is English, but the pace will be suitable for participants whose first language is not English.

Learning Outcomes for the Half-Day Masterclass

By the end of this course, participants will be able to,

- Select the right strategy for different clinical teaching situations (inpatient or ambulatory settings, levels of learners, content to be taught such as history taking, physical examination, clinical reasoning etc)
- Gain comfort and confidence in teaching learners when patients are present (bedside teaching)
- Apply core principles of time-efficient teaching in busy clinical work environments
- Understand and apply direct observation to assess learners' knowledge, skills and attitudes directly related to patient care
- Reflect on and practice skills for effective feedback

Course Faculty

Subha Ramani, MBBS, PhD, FAMEE, Brigham and Women's Hospital and Harvard Medical School, Boston, USA

FAMEE (Course Director); AMEE President; Associate Professor of Medicine, Harvard Medical School; Adjunct Professor, Massachusetts General Hospital Institute for Health Professions; Director, Program for research, innovations and scholarship, Department of Medicine, Brigham and Women's Hospital; Academic Lead, Global perspectives and community, Brigham Education Institute; Boston, MA, USA.

James Kwan, MBBS, BSc (Hons), MMed (ClinEpi), MHPE, MRCSEd, FACEM, FRCM, FAMS

Senior Consultant, Department of Emergency Medicine, Tan Tock Seng Hospital; Chair, Core Curriculum and Education Committee, International Federation for Emergency Medicine; Adjunct Associate Professor, Yong Loo Lin School of Medicine, National University of Singapore, Singapore; Adjunct Asst. Professor, Emergency Medicine, Lee Kong Chian School of Medicine.

Balakrishnan (Kichu) R Nair, MBBS, MD (Newcastle) FRACP, FRCPE (Edinburgh), FRCPG (Glasgow), FRCPI (Ireland), FANZSGM, Graduate Dip (ClinEpid)

Professor of Medicine, School of Medicine and Public Health, Newcastle, Australia; Director, Centre for Medical Professional Development, Hunter New England Health Service, Newcastle, Australia.

W1A1
Wednesday 17th January 2024
8.00 am – 12.00 pm
Mini Auditorium 1, Level 1, UCFM Tower, Faculty of Medicine, University of Colombo
Young Biomedical Science Educators (YBMS) Capstone (By Invitation Only)

Neil Osheroff (United States of America), Arthur Lau (Singapore), Ira Agrawal (Singapore), Neelima Gupta (Singapore), Vishna Devi Nadarajah (Malaysia), Vajira Dissanayake (Sri Lanka), Yvonne Steinert (Canada)

Background of the Young Biomedical Science Educators Programme

GenMED launched a Young Biomedical Science Educators Programme in 2021. This programme is open to all instructors, Research Fellows, PhD Students who teach biomedical sciences in NUSMed, who have a strong interest to pursue future career in health professions education. The programme consists of foundational modules, selective modules, practicum and ends with a capstone session at APMEC.

The purpose of the programme are as follows:

- Develop a pipeline of “home-grown” biomedical science educators
- Address the issue of succession planning
- Provide opportunities to foster collaboration amongst young educators across departments, and
- Link up local and international biomedical science educators with a view to provide local educators with mentoring in the early stage of their career

Programme Details

8.00 am to 8.15 am	Welcome and Introduction Dr Dujeepa D Samarasekera
8.15 am to 8.40 am	Thriving as a Medical Science Educator Professor Neil Osheroff
8.40 am to 9.25 am	Personal Journey from a Scientist to an Educator (15 mins/person) Dr Arthur Lau, Dr Ira Agrawal and Dr Neelima Gupta
9.25 am to 9.40 am	Break (15 mins)
9.40 am to 10.05 am	Scientist to Leadership in Education Professor Vishna Devi Nadarajah
10.05 am to 10.30 am	Navigating the Challenges Professor Vajira Dissanayake
10.30 am to 10.45 am	Break (15 mins)
10.45 am to 11.10 am	Professional Identity Formation – Scientist to Educator Professor Yvonne Steinert
11.10 am to 11.30 am	Project Presentation (if any)
11.30 am to 12.00 pm	Wrap Up
12.00 pm	End of Session

W1A3

Wednesday 17th January 2024

8.00 am – 12.00 pm

Workshop Room 1, Level 1, UCFM Tower, Faculty of Medicine, University of Colombo

Quality Nursing Education

Nell Ard (United States of America), Jennifer Graebe (United States of America)

Workshop Description

The workshop will provide information about quality nursing education in a variety of settings. The workshop will explore nursing education accreditation standards for academic programs in colleges and universities, as well as nursing professional development educational opportunities.

Workshop Objectives

- Describe the attributes of quality nursing education in various settings.
- Describe the benefits of attaining international nursing accreditation.
- Describe the steps to the process of attaining international nursing accreditation for a nursing program.
- Describe the steps to the process of attaining international accreditation for a professional development workshop.

Who Should Attend

- Nursing programs offered at a college or university.
- Nursing professional development representatives/departments in colleges or universities, or healthcare settings.
- Individuals interested in international nursing accreditation in academia and/or professional practice.

W1A4

Wednesday 17th January 2024

8.00 am – 12.00 pm

Workshop Room 2, Level 1, UCFM Tower, Faculty of Medicine, University of Colombo

Beyond the Global North: Conducting International Health Professional Education Research and Scholarship

Sophia Archuleta (Singapore), Halah Ibrahim (United Arab Emirates), Shefaly Shorey (Singapore)

Workshop Description

Health professions education (HPE) is globalizing rapidly, as exemplified by regular international exchanges, more institutional partnerships, and a movement to standardize educational outcomes worldwide. Educators have more opportunities than ever before to learn in the context of diverse collaborations and contribute to advancing the scholarship and practice of HPE internationally. However, voices from the Global North continue to dominate the discourse and publications in medical education (meded) journals. The problem is that international collaborations are complex; Global South educators are busy, often under-resourced and may not know how to take advantage of these opportunities. In this session, we will explore geographic diversity in HPE research (or lack thereof), as well as common challenges when pursuing educational scholarship internationally and tips to overcome them - with examples from the speakers' own experience in educational scholarship related to Boyer's 4 forms: research/discovery, integration, application and teaching.

Workshop Objectives

By the end of the session, participants will be able to:

- Articulate at least two reasons for engaging in international HPE scholarship
- Understand the current status of globalization and geographic diversity in HPE research
- Describe common challenges when pursuing educational scholarship internationally and ways to overcome them
- Identify at least one example of international educational scholarship in each of Boyer's forms: research, teaching, application & integration
- Identify at least one next step they will take to engage in international educational scholarship after the session

Who Should Attend

The workshop will bring together healthcare professionals, researchers, educators, and Global South inclusivity advocates to engage in thoughtful discussions and knowledge sharing. We propose this workshop to share lessons we've learned from experiences with international HPE scholarship and give participants a starting point for doing so themselves. No prior experience in HPE scholarship is required. We also hope that by getting to know participants we can remain in contact and provide support to them as they attempt to navigate the international HPE landscape.

W1A5

Wednesday 17th January 2024

8.00 am – 12.00 pm

Workshop Room, Level 5, UCFM Tower, Faculty of Medicine, University of Colombo

Basics Of AI in Health Professions Education: AI For All

Goh Poh-Sun (Singapore), Elisabeth Schlegel (Bahamas), Mildred Lopez (Mexico)

Workshop Description

This workshop will cover the basic ideas, principles and practices of AI in Health Professions Education (HPE). There will be short faculty presentations, and opportunities for both interactive discussions, demonstrations and exploration using AI in HPE. We will start by exploring basic ideas and principles at a working level, to build a foundation for further discussion and exploration. We will then explore how and where AI is embedded in how we practice and the tools and platforms we use, including when we do online search, take advantage of autocomplete and chatbot options, AI tools and extensions within work productivity software, and standalone AI platforms and mobile Apps. The aim of this workshop is to build AI literacy, practice common applications such as developing NBME-style questions, structured clinical case-based teaching outlines, AI facilitated short teaching video production, or even write fun class summary poems to elevate the mood on a difficult subject. Further goals include developing a deeper appreciation of the potential and pitfalls of using AI, exploring pedagogy, policies as well as research and scholarship avenues using AI in HPE. At the end of this workshop, participants will have a foundation to actively participate in discussions using AI in HPE, as well as foundational knowledge to actively explore and use AI in HPE.

Background Reading/Curated Online Resources

<https://aiinhpe.blogspot.com/>

Workshop Objectives

- To review the basic ideas, principles and practices of AI in Health Professions Education (HPE).
- To build AI literacy, practice common applications
- To build a foundation to actively participate in discussions using AI in HPE, as well as foundational knowledge to actively explore and use AI in HPE.

Who Should Attend

Health professions educators who are interested in reviewing the basic ideas, principles and practices of AI in Health Professions Education (HPE); building AI literacy, practicing common applications, building a foundation to actively participate in discussions using AI in HPE, as well as foundational knowledge to actively explore and use AI in HPE.

W1A6

Wednesday 17th January 2024

8.00 am – 12.00 pm

Procedure Room, Level 8, UCFM Tower, Faculty of Medicine, University of Colombo

Using Cinema to Explore the Current and Future Relationship Between Humans and Artificial Intelligence in Health and Health Professions Education

Pathiyil Ravi Shankar (Malaysia), Saroj Jayasinghe (Sri Lanka), Panduka Karunanayake (Sri Lanka), Santhushya Fernando (Sri Lanka)

Workshop Description

Movies can play a vital role in the education of future healthcare professionals. The term cinemeducation has been coined to describe the use of cinema in medical education. Movies and movie clips have been used for various purposes including exploring the history of medicine, understanding the patient's perspective, exploring important social issues, and helping the holistic development of healthcare professionals. The authors have been using cinema in the education of students for over a decade. Movie and movie clips have been used to explore 'people skills' and other areas. Movies effectively engage learners with the affective dimensions of health, sickness, and disability.

The role of artificial intelligence (AI) in the health professions can be explored using movies. Ethical challenges can also be discussed. In addition to the cognitive domain, the affective one will be significantly strengthened. The importance of the affective domain and human skills is likely to increase with the widespread use of AI. In this interactive and engaging workshop, the facilitators will introduce the participants to cinemeducation, explore strategies to study the role current and future role between humans and AI in health and health professions education, and use movie clips to engage with these issues and topics at a deeper, and affective level. A guide on facilitating cinemeducation sessions will also be introduced.

W1A8

Wednesday 17th January 2024

8.00 am – 12.00 pm

Workshop Room 1, Level 2, UCFM Tower, Faculty of Medicine, University of Colombo

Leveraging AI for Student-Faculty Partnerships for Enhanced Learning

Syeda Sadia Fatima (Pakistan), Kulsoom Ghias (Pakistan), Tasneem Anwar (Pakistan), Satwat Hashmi (Pakistan), Kauser Jabeen (Pakistan)

Workshop Description

This workshop offers participants a transformative experience in understanding the principles of Students as Partners intertwined with the integration of AI in education. Through critical assessment of their teaching practices and benchmarking against real-life cases, AI-driven cases, attendees will identify opportunities and challenges in integrating this model. Interactive activities and case studies will guide the design of collaborative learning experiences, involving students as decision-makers, co-creators, curriculum developers and showcasing AI's role in decision-making and personalized learning. Emphasizing student-centeredness and equity, attendees will explore AI's potential for co-creating materials and fostering inclusive environments. Discussions will encompass AI's ethical implications, guiding educators to create impactful learning experiences that leverage AI's analytics for student success.

Workshop Objectives

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

- Analyze and synthesize the principles of Students as Partners in real-world educational contexts.
- Evaluate existing teaching practices and identify opportunities and challenges in integrating Students as Partners initiatives.
- Create collaborative learning experiences involving students as partners in decision-making, curriculum development, and co-creation of learning materials, particularly in the context and use of Artificial intelligence.

Who Should Attend

This workshop is designed for forward-thinking curriculum developers, dedicated faculty members, and enthusiastic students who are committed to driving innovation in education. Curriculum developers will gain insights into integrating Students as Partners principles with AI advancements. Faculty members, eager to explore innovative teaching practices, will discover the transformative potential of collaborative learning experiences. Students, the ultimate beneficiaries of these efforts, are encouraged to participate actively, fostering a genuine partnership for educational enhancement. This workshop provides a platform for these diverse stakeholders to unite, exchange ideas, and collectively shape the future of education through inclusive and AI-powered approaches.

W1A9

Wednesday 17th January 2024**8.00 am – 12.00 pm****Workshop Room 2, Level 2, UCFM Tower, Faculty of Medicine, University of Colombo****Interprofessional Social Accountability Educational Strategies for Next Generation Health Care Professionals**

Jyotsna Sriranga (India), Pushpanjali Krishnappa (India)

Workshop Description

The need for interprofessional collaboration and coordination to improve health outcomes is well established. This collaboration and coordination is critical, particularly in resource constraint settings. In such a scenario, interprofessional co-ordination should begin right from the stage of education. Health care professional students should be taught in the community in an interprofessional set up. This workshop, through its shared best practice approach, introduces the participants to opportunities for Inter professional education in their local context.

- After a short introduction on the need for interprofessional co-ordination, the participants will discuss in their small groups on the situation, policy support and ground action in their local context.
- Dr. Pushpanjali will share the educational experience, learning strategies, challenges and outcomes from the IPE education for health equity at Ramaiah University of Health Sciences
- The participants will identify potential opportunities to train learners in the IPE set up to address issues of health inequity in their local context and share in the plenary. They will develop educational strategies to instil social accountability values in their learners.
- Participants will brainstorm together on developing a strategic approach to introduce IPE for reducing health inequity in their local context. The emphasis will be on policy advocacy, social accountability education design and transferability, communication and collaboration to bring together a community of practice.
- The session will conclude with a summarisation of key learning points.

Workshop Objectives

- Introduce participants to the context and need for interprofessional education for social accountability
- Identify opportunities for introducing IPE for social accountability in their local context
- Develop strategic approaches for policy advocacy, social accountability education design and transferability, communication and collaboration to introduce IPE for social accountability in their local context

Who Should Attend

Participants who are involved in community based education design, implementation and evaluation such as Educationists, faculty from different health disciplines, students will greatly benefit from this workshop.

Pre Conference Workshops

In addition, deans, management personnel who set the agenda for the institutional vision, accreditation standards, curriculum orientation and community-institutional responsibility will benefit from this workshop

W1P1
Wednesday 17th January 2024
1.00 pm – 5.00 pm
Workshop Room 2, Level 1, UCFM Tower, Faculty of Medicine, University of Colombo
Developing Clinician-Scientists

Shervanthi Homer-Vanniasinkam (United Kingdom), Dakshitha Wickramasinghe (Sri Lanka), Yawar Hayat Khan (Pakistan)

Workshop Description

The challenge of attracting, nurturing and retaining Clinician-Scientists persists, given the ever-increasing demands on their time by clinical and administrative responsibilities. However, it is crucial for the advancement of our profession, as also the promotion of translational research, that we continue to strive to develop this cadre of clinicians. To achieve this, a systematic approach supported by adequate resources is crucial. This workshop, delivered by experienced resource persons, aims to explore the challenges and practical solutions to this continuing problem and invites participants to share their experiences too.

Workshop programme

Session	Time (Sri Lanka)	Topic	Speaker
Session 1	13.00 pm to 13.15 pm	Welcoming the participants	Prof YHK
	12.15 pm to 13.30 pm	Facilitators introduce themselves Participant expectations and workshop programme	Prof SHV, DW, YHK
	13.30 pm to 14.00 pm	'Developing Clinician-Scientists (Ambition to Action)'	Prof YHK
	14.00 pm to 14.30 pm	'Translational Research: A Road Less Travelled'	Prof SHV
	14.30 pm to 15.00 pm	'Securing the future - thinking outside the box'	Prof DW
	15.00 pm to 15.30 pm	Interactive Tea/ Coffee Break	
Session 2	15.30 pm to 16.00 pm	Groups working on specific themes	Prof YHK
	16.00 pm to 16.30 pm	Groups presentations (flipchart)	Prof SHV
	16.30 pm to 16.40 pm	Feedback provided by facilitators	Prof DW
	16.40 pm to 17.00 pm	Closing remarks & reflection	Prof SHV, DW, YHK

Workshop Objectives

- Improve knowledge and understanding about Healthcare Organizations in general, and in academia in particular.
- Develop an understanding of how excellence is achieved in Healthcare Organizations, with particular reference to the role of academic faculty.
- Develop awareness regarding the term Clinician-Scientist (CS).
- Discuss the key attributes and characteristics of a CS.

Pre Conference Workshops

- Discuss the continuing challenges and way forward in developing CS, including different strategies for doing so.
- Develop an understanding of the roles & responsibilities of a CS.
- Discuss an evaluation process for CS.
- Creating awareness regarding the concept of 'Translational Research.'

Who Should Attend

- Medical students, and early career physicians who are interested in pursuing the dual path
- Postdoctoral researchers
- Nurses and other healthcare professionals with an interest in clinical research
- Faculty members at medical, dental, and nursing schools
- Members of funding agencies and other organisations that support clinician-scientist development

W1P2

Wednesday 17th January 2024

1.00 pm – 5.00 pm

Workshop Room, Level 5, UCFM Tower, Faculty of Medicine, University of Colombo

Evidence Based Principles to Facilitate Effective Learning in Everyday Teaching Encounters

Matthew Low (Singapore), Shirley Ooi (Singapore), Khoo See Meng (Singapore), See Kay Choong (Singapore), Raj Menon Kumar (Singapore)

Workshop Description

Effective clinical medicine is grounded in the science of human biology, and clinicians seek to practice evidence-based medicine. Similarly, effective health professions education is grounded in the science of learning, and educators should seek to educate in an evidence-based manner. This workshop aims to bridge the gap between evidence and educational practice at the classroom and bedside, by enabling participants with knowledge of these principles and facilitating their transfer to authentic practice.

The structure of this workshop is as follows:

- Sharing individual challenges and solutions: The workshop begins with participants sharing challenges in day-to-day teaching encounters, and effective teaching strategies that they have encountered for addressing these challenges.
- Introduction to evidence-based teaching principles: Each principle will be illustrated through large group case-based discussions of authentic clinical teaching scenarios often encountered by educators.
- Breakout groups: In small groups, participants apply the principles taught in the prior segment, relating these principles to each participant's individual context, so that each participant finishes the session with a plan to transfer what they have learnt from this workshop to their next educational encounter. Each small group is thematic, covering a specific teaching context, and participants may choose to cover two themes by attending two small groups. The themes include:
 - Large group teaching
 - Small group teaching
 - Bedside teaching
 - Procedural skills teaching
- Final summary: Participants share a summary of key learning points from each small group discussion.

Duration: 4 hours, including a 20-minute break at the halfway mark.

Workshop Objectives

Effective clinical medicine is grounded in the science of human biology, and clinicians seek to practice evidence-based medicine. Similarly, effective health professions education is grounded in the science of learning, and educators should seek to educate in an evidence-based manner. This workshop aims to bridge the gap between evidence and educational practice at the classroom and bedside, by enabling participants with knowledge of these principles and facilitating their transfer to authentic practice.

Who Should Attend

Effective clinical medicine is grounded in the science of human biology, and clinicians seek to practice evidence-based medicine. Similarly, effective health professions education is grounded in the science of learning, and educators should seek to educate in an evidence-based manner.

W1P3

Wednesday 17th January 2024**1.00 pm – 5.00 pm****Lecture Hall 1, Level 10, UCFM Tower, Faculty of Medicine, University of Colombo****Navigating Institutional Quality Assurance and Quality Enhancement: Unveiling Distinctions and Synergies**

Susie Schofield (United Kingdom), Qabirul Karan Abdullah (United Kingdom)

Workshop Description

Quality Assurance in medical education has become a world-wide norm with many countries having developed their own national standards aligned to those suggested in the late 1990's by the World Federation for Medical Education. One of the main drivers for doing this was to allow the demonstration of equivalence through accreditation to support the WHO's strategy – Human Resources for Health designed to remedy healthcare personnel shortages through migration (Weisz & Nannestad, 2021). However, it quickly became apparent that having international standards for medical education create a consensus baseline that then supported local and international quality assurance processes intended to drive up standards across the globe. Whilst this was an improvement many began to consider that rather than have QA visits at set intervals, establishing a culture of continuous quality improvement (CQI) would be more effective (Al-Shehri & Al-Alwan, 2013) and would also enable the identification of 'gaps' which could be addressed before formal accreditation visits were scheduled to happen (Barzansky et al, 2015). This latter approach has become known as 'Quality Enhancement'.

This workshop will explore the differences between quality assurance and quality enhancement and look at way of building on the strengths of quality assurance in a way that enables quality enhancement. Using examples from different national regulators it will also allow a further consideration of the need for local and global to be 'same-same but different'.

It will also invite participants to explore the concept that effectiveness of both processes need not just be based on student outcomes but when the criteria to be considered are expanded beyond and into patient care can have a positive impact on the needs of society. (Akdemir et al, 2020)

Workshop Objectives

The aim of this workshop is to explore the differences and similarities between Institutional or Programmatic Quality Assurance and Quality Enhancement. It will enable delegates to consider the relevance of both to their own institutions and programmes and to consider optimal measures of success for both. Case studies will be provided to allow critical discussion however delegates will be encouraged to bring their own examples for collective examination.

The take home message will be that the thoughtful integration of purpose, context and logistics are all important considerations when considering quality enhancement developments.

Who Should Attend

Whilst this workshop is designed for those with institutional and/or programmatic quality assurance and enhancement roles it will also be appropriate for those who are programme leaders or tutors and who are expected to carry out regular reviews as a way of improving outcomes or act on information

Pre Conference Workshops

given to them about quality of their activities. Participants are encouraged to bring examples from their own institutions to be shared and for consideration by the wider group however relevant case studies will also be provided to enable a range of topics to be covered.

W1P4
Wednesday 17th January 2024
1.00 pm – 5.00 pm
Workshop Room 1, Level 1, UCFM Tower, Faculty of Medicine, University of Colombo
More Than the Sum of Its Parts: 3c + 1s in Interprofessional Education

Qianhui Cheng (Singapore), Gormit Kaur (Singapore), Raymond Goy Wee Lip (Singapore), Kevin Tan (Singapore), Yeoh Ting Ting (Singapore)

Workshop Description

Interprofessional collaboration occurs in a wide range of practice settings, but the skills needed to work on healthcare teams require prior preparation and practice. Interprofessional education (IPE) is an increasingly popular education model that aims to educate healthcare professionals to become better collaborators by enabling them to learn with, from and about each other, to deliver improved team-based collaborative patient care. However, historical “waves” of IPE have fallen short of meeting this goal. IPE alone is a necessary but insufficient solution for system change. We must look “beyond the lamppost” (Paradis and Whitehead 2018) and embrace an education for collaboration model that is more rigorously supported by evidence that addresses workplace system and structures. The most efficacious models will combine undergraduate and uniprofessional education for collaboration with practice-based interventions.

The 4-hour interactive workshop will be facilitated by experienced interprofessional clinician educators. First, participants will learn cutting-edge thinking about education for collaboration and the history of IPE. Next, they will be invited to reconsider the key concepts that underpin most IPE. And finally, participants will try their hand at designing a research proposal using a systems thinking toolkit applying to their area of specialty, clearly define the core concepts – teams, teamwork, and educational intervention – that frame their proposal.

The aim of the workshop is to engage learners in critical thinking about what they mean when they talk about teams, teamwork, and education for collaboration, so that they can: (1) more accurately select the concepts that reflect the reality they are trying to study; (2) more diligently select evidence that supports the claims they are making; (3) more rigorously interpret what their research tells them about clinicians, the organization of their work, and how they can learn to work effectively together.

Workshop Objectives

By attending the workshop, the attendees will be able to

- Summarise the history and context of interprofessional education, in global perspective
- Explain the key conceptual frameworks and misunderstood assumptions used when discussing interprofessionality and education for collaboration
- Explain why interprofessional education may not automatically lead to interprofessional collaborative practice
- Identify how implementation of interprofessional collaborative practice may be influenced by factors such as power, hierarchy, trust, systems, and structures –
- apply conceptual frameworks in the design of a research study for interprofessional education and collaborative practice.

Who Should Attend

Health professionals and health professions educators who are interested in designing interprofessional educational activities.

Health professionals and health professions educators who are interested in developing and implementing interprofessional clinical programmes whose members practice collaboratively.

Health professionals who are sceptical about how most IPE is conducted at present are particularly welcome to join.

W1P5

Wednesday 17th January 2024

1.00 pm – 5.00 pm

Procedure Room, Level 8, UCFM Tower, Faculty of Medicine, University of Colombo

Flip the Class

Nilesh Kumar Mitra (Malaysia), Heethal Jaiprakash (United Kingdom), Norul Hidayah (Malaysia)

Workshop Description

The flipped classroom has been defined as a pedagogical model in which the typical lecture and homework elements of a course are reversed. Short video lectures are viewed by students at home before the class session, while in-class time is devoted to hands-on exercises, projects, or discussions. Due to the COVID-19 pandemic, academic institutions have been compelled to adopt a flipped classroom approach to meet the requirements of online learning. However, many students are not actively participating in the out-of-class learning activities, frequently neglecting the pre-class assignments and struggling to achieve the intended outcomes. At the same time, instructors often lack the skills to create engaging pre-class material and accurately assess students' learning progress. Therefore, the workshop will help the participants understand the principles and components of a Flipped Class approach, create online preparation material for the Flipped Class, and organize group activities in the Flipped class. It will discuss the way to implement student-student and teacher-student interaction in a flipped classroom setting to enhance the quality of teaching and learning experiences.

Structure of workshop (4 hours) (240 Mins)

- Principles, components, advantages and challenges of teaching a flipped class during COVID-19 pandemic/ present situation - Presentation 20 Minutes, Group discussion 30 Mins, Group Presentation 20 Mins
- Designing the pre-class teaching material (Microlearning principle, use of e-learning tools) -- Presentation 40 Minutes, Group discussion based on a template 45 Mins
- Break 15 mins followed by Presentation 20 Mins
- How to manage group work and feedback during in-class time --Group Discussion preparation of a plan 30 Min, Presentation 10 Mins
- Take home message (summary) 10 mins

Workshop Objectives

This is a basic level workshop and the participants should only possess interest in motivating the students in self-directed learning.

At the end of the workshop, the participants will be able to,

- prepare preparatory material effectively for flipped class.
- plan the group-work and create a collaborative atmosphere during the class.
- assess the effectiveness of the flipped class.

Who Should Attend

Academics teaching the medical and health sciences courses and tutors assisting in delivery of medical and health science courses. The workshop will be helpful also for practicing clinicians, nurses and healthcare workers for enhancing the interactions and engagement in clinical teaching. The workshop also aims to educate the medical and health science students who are motivated to learn how to collaborate effectively towards completion of learning outcomes in teaching-learning sessions.

W1P7

Wednesday 17th January 2024

1.00 pm – 5.00 pm

Workshop Room 1, Level 2, UCFM Tower, Faculty of Medicine, University of Colombo

Ethical Uses of Artificial Intelligence for Teaching and Learning

Hasnain Baloch (Malaysia)

Workshop Description

Today, with all the innovation and advancement in computing, 5G and internet of things (IOT), Artificial Intelligence and expert systems are getting into most sectors of our life. We will explore Artificial Intelligence and how we can use it in Medical Education. In this workshop we aim to introduce participants to the use of Artificial Intelligence (AI) in medical education. The workshop would typically focus on exploring the different ways that AI can be used to enhance the learning experience for medical students, including hands-on activities and interactive demonstrations of AI-powered tools and systems

Workshop Objectives

The workshop would be designed to be interactive and provide attendees with a comprehensive understanding of how AI can be integrated into medical education. It would cover topics such as:

- Personalized learning and tutoring
- Diagnosis and treatment planning using AI
- Virtual patient simulations
- Predictive analytics and early warning systems
- Data visualization and analysis
- Research and drug discovery
- Ethical considerations of AI usage in medical education
- Explore the terms AI, Machine Learning and Generative AI.
- Apply AI tools to design and develop interactive content.
- Discuss ethical uses of AI for teaching and learning.
- Explore different ways to use web based AI enabled features to develop content.

Who Should Attend

The attendees would typically include;

- Medical educators, medical school administrators, medical students, educational technologists, researchers in the medical field.
- Medical Education Students, Instructional Designers, eLearning administrators, Skill and simulation directors and coordinators.
- Educational Technology projects managers.
- Health Informatics
- Futuristic Educators
- Graphic designers
- Module Coordinators, Programme Directors
- AI explorers, Generative AI explorers

W1A7

Wednesday 17th January 2024

Workshop Room 2, Level 2, UCFM Tower, Faculty of Medicine, University of Colombo

Postgraduate Supervision and Mentoring in Health Professions Education

Diantha Soemantri (Indonesia), Veena Singaram (South Africa), Vishna Devi Nadarajah (Malaysia)

Workshop Description
Background

Attraction and retention of healthcare professionals into postgraduate research programmes is a multifaceted challenge in higher education. Postgraduate supervision directly influences the success of master's and doctoral researchers' progression, attrition rates and quality of experiences. Clinical educators hold a high degree of structural power over students and junior colleagues. Postgraduate supervisors must become more conscious of how this may impede the supervisor relationship and feedback-seeking behaviour in health professions postgraduate research. We need to advocate for aspects of psychological safety that include trust, relationship building, and supervision alliances and create more inclusive 'safe' neutral supervision spaces that dismantle the negative impact of the power dynamics in postgraduate research.

This interactive workshop aims to provide insights into the supervisor's role as a mentor at different stages of the master's and doctoral journey. Practical and educational strategies will be shared to enhance the knowledge, skills, and attitudes of postgraduate supervisors in HPE. Participants will also be introduced to the latest frameworks, theories, tools, and strategies to enhance their supervision and mentorship styles to facilitate the success and wellbeing of both postgraduate students and supervision in health professions graduate education.

Structure of Workshop

This interactive workshop will include presentations, group work and role plays.

- Introduction/Icebreaker (20mins)
- Define Goals and expectations (20mins)
- Presentation 1 (10mins)
- Small group activity based on scenario1 and report back (30mins)
- Presentation 2 (10mins)
- Small group activity based on scenario 2 and report back (30mins)
- Presentation 3 (10mins)
- Small group activity based on scenario1 and report back (30mins)
- Closing Reflections (10mins)

Workshop Objectives

At the end of the workshop, the participants are expected to obtain the skills of:

- Self-Reflection and Adaptation- gain insight into current supervisory approach and develop an awareness of how to adapt to the context and candidate.
- Balancing Direction and Autonomy-strategies to strike the right balance between providing feedback, clear guidance and support while fostering candidate's autonomy and independence as an emerging researcher.

Pre Conference Workshops

- Toolkit for Well-Being -- practical tools and strategies to promote well-being as supervisors and enhance the well-being of supervisees.

Who Should Attend

This is an introductory level workshop. The workshop is intended primarily to those who are novices and intermediate educators interested or involved in postgraduate supervision. The participants are expected to actively participate in the workshop by sharing their insights and experiences into postgraduate supervision.

W2A1

Thursday 18th January 2024

8.00 am – 12.00 pm

Workshop Room, Level 8, UCFM Tower, Faculty of Medicine, University of Colombo

Shifting Paradigms in Student Remediation: Empowering Competence Through Action Learning Sets

Susie Schofield (United Kingdom), Qabirul Karan Abdullah (United Kingdom)

Workshop Description

The traditional concept of student remediation, often linked to addressing underperformance, has undergone a transformative shift. It is now recognized as a comprehensive strategy to foster competence among all learners, irrespective of their stage. This workshop explores the intricacies of this evolved perspective on remediation by drawing on insights from organizational systems theories and research. It aims to propose practical remedies for effectively assisting growing healthcare student cohorts facing diverse educational challenges that frequently exhibit collective rather than individual characteristics.

With a focus on fostering competency acquisition, the session offers a range of strategies and methodologies. Particular emphasis is placed on leveraging student peer group support to augment tutor intervention, thereby forming an integral part of effective remediation programs.

At the core of the workshop lies the principle of Action Learning Sets, a time-honoured technique renowned for resolving complex challenges within healthcare organizations. This method not only enhances reflective practice and collaborative skills within small groups but also acts as a potent catalyst for student-led peer learning. Integrating Action Learning Sets into institutional remediation systems allows for decreased tutor intervention with the added bonus of nurturing student-driven approaches to problem solving.

Participants are invited to contribute instances where their remediation systems have been examined and potential gaps identified. Through these real-world illustrations, in conjunction with guidance from expert facilitators, attendees will examine strategies for crafting student-oriented Action Learning Sets. A focal point of this exploration is nurturing "exploratory insight" (Revens, 1998) through refining skills in effective questioning and reflective practice.

As educational paradigms continue to evolve, this workshop aims to arm educators with a transformative approach to reshape the landscape of student remediation. By harnessing the potent potential of Action Learning Sets, participants will depart equipped to enhance self-directed learning and dynamic problem-solving capabilities among their students.

Workshop Objectives

The aim of this workshop is to allow participants to increase their capability to;

- Articulate the contextual and individual factors contributing to underperformance.
- Analyse the efficacy of employing Action Learning Sets to elevate peer group learning and reflective practice.

- Investigate techniques for cultivating and nurturing Action Learning Sets to promote student-driven peer group engagement, bolstered by increased proficiency in reflective practice.

Who Should Attend

Medical Educators (particularly but not exclusively from the clinical teaching environment) who are involved in teaching undergraduates, postgraduate specialty trainees and established professionals undertaking CPD activities and who are particularly involved in teaching/tutoring small groups of students and who may or may not also have a leadership role. The workshop will benefit both new and experienced small group tutors as the format of the workshop will allow individual participants to focus on the workshop activities and processes most relevant to their own current practice and their own future development.

W2A2

Thursday 18th January 2024**8.00 am – 12.00 pm****Procedure Room, Level 8, UCFM Tower, Faculty of Medicine, University of Colombo****Integrating Assessment in Basic Sciences Education**

Neil Osheroff (United States of America), Kimberly B Dahlman (United States of America)

Workshop Description

Successful practicing clinicians require skills and attitudes beyond medical knowledge, and pre-clerkship faculty play an early role in developing these attributes in students. However, because of the heavy focus on medical knowledge during pre-clerkship training, programs often struggle to design experiences and assessments that prepare students for all aspects of clinical work. One approach to addressing this important issue is to incorporate competency-based assessment schemes into the pre-clerkship curriculum. While maintaining the importance of medical knowledge, competency-based strategies allow a more holistic view of student development and can be used to provide additional information and coaching for students in a variety of domains such as practice-based learning and improvement, systems-based practice, interpersonal skills and communication, and professionalism. They also provide students with rich and timely feedback across all aspects of their performance, establish a roadmap that encourages student development, and have the potential to identify students with challenges in domains other than medical knowledge that often go undetected during pre-clerkship training.

The workshop will begin with an interactive large group session that explores the use of qualitative milestone-based competency assessments in the pre-clerkship phase. The session will discuss the difference between “competencies” and “competence” and will explore the advantages of this assessment strategy over quantitative knowledge-based assessments alone.

Two small group activities will follow.

- Attendees will break into small groups and discuss approaches for integrating novel activities into their curricula that could be used as settings to observe specific student behaviors and apply milestone-based assessments. Participants will share strategies and activities that they identified.
- Participants will develop milestone language for specific competency domains and report back to the large group.

Workshop Objectives

This interactive workshop will provide practical information and a framework that participants can use to implement milestone-based assessment strategies that include multiple competency domains in the basic sciences at their institutions.

After completing this workshop, participants will be able to:

- Describe qualitative formats of assessment and how they can be used to equip students with a diverse set of competencies during pre-clerkship medical education.

Pre Conference Workshops

- Design different small group learning environments that can be used to capture student behavior.
- Discuss how feedback from these sessions can be used to identify previously undetected competency challenges and allow opportunities for coaching and remediation before students enter the clinical workplace.
- Develop standardized milestone-based competency language for assessing student performance.

Who Should Attend

This workshop will benefit curricular leaders, course directors, administrators, and interested faculty members who are involved in student health professional education and assessment in the pre-clerkship curriculum. We believe that educators who teach in the clinical workplace will benefit greatly as well. We expect that attendees will leave the workshop with practical strategies and a framework for implementing milestone-based assessments of students at their institutions.

W2A3

Thursday 18th January 2024

8.00 am – 12.00 pm

Workshop Room 2, Level 1, UCFM Tower, Faculty of Medicine, University of Colombo

Active Engagement with Learners in Co-Creating and Collaborative Knowledge Building Using Digital and AI Technologies: Peerwise, Pharmacology Tutorials, And Chat GPT

Judy Sng (Singapore), Gavin Dawe (Singapore), Inthrani Raja Indran (Singapore), Tharindunee Jayakody (Sri Lanka), Priya Paranthaman (Singapore)

Workshop Description

During the COVID-19 pandemic, many universities are using blended or hybrid learning. Inevitably, our students, either undergraduate or postgraduate, new or existing students, will feel a bit lost in this new learning environment. From adapting to digital coursework to staying disciplined with minimal face-to-face interactions, getting used to this new type of education may cause them to struggle — especially if their learning style isn't being addressed.

As 21st century teacher, we become co-designers with our learners and treating our students as equal partners in the realms of education. The impact of co-creation addresses an important element of psychosocial learning environment: enhanced learner teacher relationships, a stronger sense of identity, and an increased sense of belongingness and cohesion. Using three publicly available digital technologies, PeerWise, Pharmacology Tutorials and ChatGPT, we used them to innovate and complement our teaching and co-design content with our students.

Structure Of Workshop

- The 21st Century Educator: Teachers as Co-Designers
- Introduction and Interactive Presentation on Peerwise, Pharmacology Tutorials and ChatGPT
- Hands-on exercises to learn how to use the different functions of PeerWise, Pharmacology Tutorials and ChatGPT 4) Digital and AI Tools Pros and Cons: Small group discussion on benefits and risks of technologies in education
- Impact of AI on HPE: Facilitated large group discussion
- Rethinking Education in the age Gen AI: Small group presentations of new or modified educational methodologies integrating Gen AI to HPE

Workshop Objectives

Intended outcomes are,

- Understand features of publicly available digital tools and their design features.
- Examine their design, functions, and operation.
- Analyze the potential threats of digital technology and AI to educational programs.
- Evaluate the potential applications of ChatGPT to education.
- Discuss future directions of Health Professions Education in the face of a changing technological environment

Who Should Attend

This workshop is aimed at health professions educators interested in gaining a more in depth understanding digital tools used in HPE teaching. In this half-day workshop, we discuss our role as educators in the 21st century. We will let our participants have hands-on experience with PeerWise, Pharmacology Tutorials and ChatGPT and their functions. We will also discuss the future of medical education in the realm of AI.

W2A4

Thursday 18th January 2024

8.00 am – 12.00 pm

Workshop Room 1, Level 2, UCFM Tower, Faculty of Medicine, University of Colombo

Reverse Role Play with Partial Simulation – Innovative Clinical Teaching in Paediatrics for Family Medicine Residents

Goh Lee Gan (Singapore), Rajeev Ramachandran (Singapore)

Workshop Description

We will introduce an innovative method of small group clinical teaching for post graduate trainees. The method is reverse roleplay (RRP) with partial simulation (PS). The principles of didactics, description of teaching method and learning will be conducted in the first 2 hours. In the remaining 2 hours, we will do a live demonstration of the teaching method using appropriate clinical cases.

Workshop Objectives

Following this session participants will be able to:

- Know about an innovative method of small group clinical teaching.
- Strategize a clinical teaching method suitable for their students by relevant modification of the method learned.
- Identify ways the concepts of teaching and learning can be manipulated for more effective clinical education.

Who Should Attend

Participants will be provided opportunities to express their own personal experiences. Structured discussion on relevant questions will be integrated throughout the session. Workgroups will encourage participants to take part in the practice sessions to have hands-on experience. Participants will be provided opportunities to express their own personal experiences. Structured discussion on relevant questions will be integrated throughout the session. Workgroups will encourage participants to take part in the practice sessions to have a hands-on experience.

W2A5

Thursday 18th January 2024**8.00 am – 12.00 pm****Workshop Room, Level 5, UCFM Tower, Faculty of Medicine, University of Colombo****Tips and Strategies to Make Manuscript Submission to An International Journal and Dissemination of Your Published Articles More Successful**

Peter G M de Jong (The Netherlands), Julie Hewett (United States of America)

Workshop Description

Scholarly work is of great importance in health professions education for developing new teaching methods, program evaluation, accreditation, and promotion and tenure. Scholarship results in products that are subject to feedback from peers and are being shared with others around the world. Especially novice scholars often struggle with the process of writing and submitting a manuscript to a journal. Having appropriate background knowledge about the process can help in becoming more successful. Beyond good academic writing skills, attention needs to be paid to intended audience, appropriate article type, educational rigor, journal selection and common practices in different parts of the world. Knowledge of typical procedures within Editorial Boards might also help to optimally prepare the manuscript. And once the article has been published, the authors can proactively promote their achievements instead of relying on passive dissemination of the article through library systems. Many online platforms like Twitter, Facebook, Instagram, LinkedIn, and ResearchGate make sharing results easy. Social media and social networks offer a wealth of opportunities to actively increase the visibility of the article, indirectly leading to more impact and citations.

The workshop will give the attendees practical strategies to improve the quality of their submission and more insight in the editorial processes of a journal, in order to increase the chances of acceptance of their work. Suggestions to handle reviewer bias and to avoid rejection caused by regional and cultural differences will be provided. During the session the participants will get small group assignments in order to help clarify the several steps in submitting a manuscript. Secondly, the participants will learn how to formulate effective social media expressions for a specific sample article. Based on the brainstorm exercises and actual experiences from the audience, the presenters will provide further tips and recommendations.

Workshop Objectives

At the end of the workshop the participants will feel much more familiar with the entire process of publishing and will have a better understanding of the way in which a manuscript should be submitted. Participants will know more about how to actively promote their own article(s) and themselves as a researcher/author by using social media and social networks.

Who Should Attend

The workshop is intended for those with no or little experience in submitting manuscripts to international medical education journals and/or with little experience with social media promotion of published articles. Any educational scholar with a focus on health profession education who wants to get some guidance and support is welcome to join, regardless their professional background or training.

W2A6

Thursday 18th January 2024**8.00 am – 12.00 pm****Lecture Hall 1, Level 10, UCFM Tower, Faculty of Medicine, University of Colombo****Faculty Development to Nurture Professional Identity of Educators in the Health Professions Speaker**

Yvonne Steinert (Canada)

Workshop Description

Clinicians' and other health professionals' identities as educators help to determine their career trajectories, involvement in teaching, participation in faculty development, and satisfaction with their educational roles and responsibilities. It is therefore important to understand the professional identity formation of clinicians and health professions educators, how faculty development programs and activities can support or nurture these roles, and what formats and strategies can be most effective. It has been said that "faculty development can nurture, support, or awaken a teaching identity." This workshop will explore this assertion as well as the organizational and systems factors that can influence the process of educator identity formation.

Workshop Objectives

By the completion of this workshop, participants will be able to: describe clinicians' and other health professionals' identities as educators; discuss the process of becoming an educator in the health professions; explain how educators' identities can be nurtured, supported or awakened through faculty development; identify faculty development programs and strategies that can help to address identity formation; and propose an action plan to support health professionals' identities in their own setting.

Who Should Attend

This workshop is intended for educational leaders, faculty developers, and all educators in the health professions interested in the professional identity formation of educators in the health professions.

W2A7

Thursday 18th January 2024

8.00 am – 12.00 pm

Workshop Room 1, Level 1, UCFM Tower, Faculty of Medicine, University of Colombo

Planetary Health in Health Professions Education

Fathima Rizka Ihsan (Australia), Lynn Monrouxe (Australia), Jacqueline Bloomfield (Australia)

Workshop Description

Humanity faces a triple threat of climate change, loss of biodiversity, and pollution. Amidst escalating challenges, the healthcare sector finds itself burdened by and contributing to the impact of climate change and environmental degradation. Planetary health which unifies and acknowledges the interdependent relationships between living organisms and their ecosystems presents a comprehensive approach to face the unprecedented challenges humanity currently faces. Participating in this workshop provides an understanding of; the triple threat, its interrelated nature, the concept of planetary health and the role of healthcare in it. Additionally, it provides an opportunity to reflect on your sustainability practices while discussing barriers and facilitators to integrating the principles of planetary health in your workplace and health professions education with global counterparts that will help generate innovative local solutions.

The workshop will begin with a presentation on climate change, loss of biodiversity and pollution with a focus on the role of healthcare it, followed by the concept of planetary health and sustainability practices in healthcare. Participants will then be asked to sort 20-30 cards containing a statement of belief/value on planetary health to their preferences to explore their own viewpoints toward principles of planetary health, sustainability and educational practices around these constructs as health professional educators (HPE). The focus group discussions (FGD) facilitated by the resource persons will follow this activity: discuss agreements and disagreements demonstrated in the previous activity, curricular integration and teaching strategies in planetary health, cultural influences on pro-environmental behavior and sustainability practices.

As a PhD student exploring professional identities in the field of planetary, I wish to leverage this unique platform to explore a range of HPEs' viewpoints. To broaden participation, all APMEC registrants will be sent an invitation to participate in the study via email, although the workshop will not be restricted to those agreeing to participate. Care will be taken to ensure that attendees not wishing to participate in the study will be grouped together during the FGD and their discussion will not be recorded.

Workshop Objectives

- To provide an understanding of the current landscape of climate change, loss of biodiversity and pollution
- To briefly discuss the concepts of planetary health and eco-anxiety
- To explore the viewpoints of health professions educators toward the principles of planetary health, sustainability and educational practices around these constructs using a Q method approach.
- To generate a meaningful discussion on the integration of planetary health in healthcare

Who Should Attend

Health profession educators from diverse backgrounds; professions, demographic and geographic locations are welcome to explore their views, and discuss barriers and enablers for climate education and action in their local settings that would facilitate the generation of innovative local solutions.

W2A8**Thursday 18th January 2024****8.00 am – 12.00 pm****Workshop Room 2, Level 2, UCFM Tower, Faculty of Medicine, University of Colombo****A Framework to Support Success and Well-Being in Health Sciences**

Michael Wilkes (United States of America), Margaret Rea (United States of America), Karl Jandrey (United States of America)

Workshop Description

High rates of burnout, anxiety and depression have been documented among health professions students (HPS), including veterinary, medical and nursing students. In response, health science schools need to look at both pre-matriculation and learning environmental factors that can work to either support or be barriers to the well-being and academic success of students. To this effort, an interdisciplinary team has developed a model of resilience that describes the role of intrapersonal, interpersonal, and systemic factors in student wellness and success. This model is being evaluated in a longitudinal study of medical, veterinary and nursing students with the goal of identifying student support and systems interventions that improve student well-being. This workshop will explore the sources of burnout, present the model, report preliminary findings, and provide participants the opportunity in small break-out groups to use the model as a roadmap to improve the chances for student success, addressing both admissions and the learning environment.

Workshop Objectives

- Evaluate a multi-dimensional model of resilience that describes the role of intrapersonal, interpersonal, and systemic determinants of student wellness and success.
- Define resilience and validated resilience-related measurement tools.
- Describe barriers and challenges in admissions to health science schools and explore interventions that could improve the process making it more inclusive.
- Describe barriers and challenges in the learning environment that limit students' academic success and diminish student wellbeing.

Who Should Attend

Health Professional Faculty interested in student well-being and understanding predictors of student academic success.

W2P2

Thursday 18th January 2024

12.30 pm – 4.30 pm

Procedure Room, Level 8, UCFM Tower, Faculty of Medicine, University of Colombo

A Beginner's Guide to Setting Standards

John Norcini (United States of America)

Workshop Description

The goal of this session is to familiarize the participants with the major methods for setting standards (i.e., selecting the pass-fail points) on written and clinical examinations. The session will start with a very brief overview of standards, how they differ from scores, the two types of standards, and the characteristics of a credible standard. The second part of the session will focus on specific methods of setting standards, including Angoff's method and the contrasting group method. Steps in the implementation of each will be described. Active engagement will be encouraged throughout, and participants are encouraged to bring their standard-setting problems to the workshop.

Workshop Objectives

After attending this workshop, the learner will be able to:

- Understand the difference between standards and score, as well as the two types of standards.
- Understand the characteristics of a credible standard.
- Become familiar with several different methods of setting standards.
- Know the steps in implementing a standard-setting process.

Who Should Attend

Anyone interested in a general introduction to setting standards on written and clinical examinations.

W2P3

Thursday 18th January 2024**12.30 pm – 4.30 pm****Workshop Room, Level 8, UCFM Tower, Faculty of Medicine, University of Colombo****Effective Use of Discussion Boards - Evidence Based Approaches to Faculty Development for Online Teaching**

Qabirul Karan Abdullah (United Kingdom), Susie Schofield (United Kingdom)

Workshop Description

This workshop draws on research funded through an ASME, Excellence in Medical Education Award 2020. The mixed-method study has included a scoping review, documentary, discourse analysis and semi-structured interviews of stakeholders in both post graduate medical education and Dundee's undergraduate medical programme. The work began before the pandemic, but as we see significant increases of online and blended learning in the mainstream of health care education, our findings may be of value to a wider audience. We believe discussion boards (DBs) are where students develop a sense-of-belonging, engagement with course content and peers. Our outcomes identify, not only how to design activities which optimize peer interactivity but also frameworks which can enable faculty development and help transfer medical educator skills from face-to-face teaching to online environments. Key frameworks underpinning our study include Community of Inquiry (Garrison et al., 2001) and the 'Worker, Lurker and Shirker model (Taylor, 2002). Our findings seem to echo the literature by suggesting it is teacher 's presence that optimizes the value of the discussion boards/ forum.

Whilst some skills are transferable, we believe there are particular knowledge, skills and attitudes needing development to enhance online learning environments in medical education. These may require evidence-based faculty development, precluded by the urgency of changes related to Covid. The workshop will begin by encouraging participants to exchange experiences of asynchronous discussion boards/ forums and using both small and large group conversations to consider how evidence, long available to distance learning experts, may help us to understand, explain and develop effective online learning in the medical education context.

Workshop Objectives

To have;

- Provided space for participants to share their experiences of online teaching and dilemmas faced, strategies developed and obstacles overcome
- Disseminated evidence-based pedagogic knowledge, skills and attitudes, key terms and concepts from the online world for application in health professions education
- Worked collaboratively to integrate online educational frameworks with participants' own experiences of online pedagogy
- Provided space for participants to recognise and articulate issues and faculty development needs with international peers
- Enabled participants to articulate their own learning needs and ideas for meeting them locally

Who Should Attend

Anyone wishing to enhance the use of asynchronous discussion boards and develop ideas for transferring knowledge and skills from face-to-face pedagogy to online environments. This workshop is available to staff with all levels of experience and expertise. Please consider attending if you would welcome an opportunity to discuss your experiences of moving online; of hearing about evidence-based understandings of online pedagogy; gathering hints and tips from peers and workshop facilitators before setting personal development goals to enhance your own performance as a stakeholder in online teaching.

W2P4

Thursday 18th January 2024**12.30 pm – 4.30 pm****Workshop Room 2, Level 1, UCFM Tower, Faculty of Medicine, University of Colombo****Let's Shake Hands- Man-Machine Collaboration for the Training of Medical Graduates in the Vuca World**

Sarmishtha Ghosh (India)

Workshop Description

The foundation of health sciences education can be found in the rational inquiry method of the ancient Greeks, which popularized the practice of disease observation and reasoning and involved knowledge transfer from the more experienced teacher to the tutee. Over the centuries, this underwent numerous modifications that eventually led to a variety of theories and, in the twenty-first century, involved technology and artificial intelligence.

To ensure effective care for people, theoretical and scientific knowledge must be thoroughly merged with practical clinical experience and responsibilities. Human educators have started to feel uneasy as AI has entered the field, though, because they worry about being replaced by machines. However, human interaction is still necessary in the classroom to promote students' critical thinking and logical thinking. The COVID-19 crisis highlighted the complexity of the global digital divide, and there is still much discussion about how the use of AI can be expanded in developing countries.

The workshop will address issues and offer hands on exercises related to the teaching learning activities and assessment systems with regards to utilizing technology and simultaneously humanizing the teaching processes to ensure production of humane doctors and researchers in the current and upcoming centuries. Participants will also be exposed to proper drafting of lesson plans and content generation for a volatile and complex world with / without AI tools and subsequent blueprinting to ensure authentic assessment.

Workshop Objectives

The objectives of this workshop are to:

- Provide participants with necessary information to be able to discuss the pros and cons of using AI in education.
- Assist participants in understanding the overlap between human intelligence and artificial intelligence in creating a humane doctor.
- Expose participants to different AI tools to draft lesson plan, develop content for microlearning, create a classroom engagement and implement authentic assessment.

Who Should Attend

The workshop is intended for instructors in the medical, biomedical, nursing, physiotherapy, and other health professions at all stages of their professional careers. The attendance of postgraduate students from various disciplines is also encouraged in order to foster fruitful interactions. Program directors and content managers of various programs may find the workshop to be helpful.

W2P5

Thursday 18th January 2024

12.30 pm – 4.30 pm

Workshop Room, Level 5, UCFM Tower, Faculty of Medicine, University of Colombo

Integrating Artificial Intelligence into Medical Education: A Path to Future-Ready Healthcare Professionals

Alison Ledger (Australia), Bernadette Richards (Australia), Nalini Pather (Australia)

Workshop Description

The rapid advancement of technologies in healthcare has made integration of AI into medical curricula a crucial endeavor for preparedness for practice. Medical students are already applying AI in their learning, while educators are exploring how AI can bring efficiencies to their work. In the clinical context, AI has the potential to transform almost every aspect of patient interaction and management, and health service delivery, but there remain concerns about the protection of patients' information, the risks of perpetuating biases, and the potential to make clinical decisions based on incorrect data (Cooper & Rodman, 2023). While we grapple with what the future might hold, it is also critical to question what AI means for medical education.

Recent attention has focused on the need to rethink assessment practice (e.g. Pearce & Chiavaroli, 2023), but what do medical students need to learn for a world where AI will be commonplace? How can we support students to understand the capabilities and limitations of AI and to share these understandings with patients? How can we ensure that students develop and exercise critical thinking, creativity, and problem-solving skills, when processes are becoming increasingly automated?

This workshop, led by a multidisciplinary team of medical educators, aims to: a. explore the transformative potential of AI and its significance for the curriculum of the future health workforce, and b. identify core concepts to include in a health technology curriculum framework. We will offer an overview of emerging AI applications in healthcare, before inviting discussion about the impact on transdisciplinary curriculum domains such as ethics and patient privacy, the AI augmented healthcare ecosystem, and the evolving role of the healthcare professional in patient care and advocacy. We will also explore strategies for faculty development, to enable educators to effectively prepare health professional students for this emerging future.

Workshop Objectives

For workshop participants to:

- Share experiences of teaching medical students about AI and related technologies
- Consider potential challenges and pitfalls in developing students for an uncertain future.
- Identify concepts and develop ideas for supporting learners to prepare for the future workplace.

References:

Cooper, A. and Rodman, A. 2023. AI and medical education – a 21st Century Pandora's Box. *New England Journal of Medicine*, **389**. pp. 385-387. Pearce, J. and Chiavaroli, N. 2023. Rethinking assessment in response to generative artificial intelligence. *Medical Education, early view*.

Who Should Attend

This workshop is for anyone who wishes to contribute to a discussion about developing learners to practice in a clinical workplace that includes AI. This audience may include medical curriculum developers, medical educators, and learning designers, but especially those with interests in technology, ethics, and supporting students to manage uncertainty, complexity, and risk.

W2P6

Thursday 18th January 2024**12.30 pm – 4.30 pm****Workshop Room 1, Level 2, UCFM Tower, Faculty of Medicine, University of Colombo****Competency Development for Self-Directed Learning in The Digital Era**

Jyotsna Sriranga (India), Pushpanjali Krishnappa (India), Girija Sivakumar (India)

Workshop Description

Life-long learning as a competency requires self-directed learning skills. It requires learners to identify their existing level of knowledge/ skill and gaps. Subsequent to this, learners should be able to identify the resources and experiences required to plug those gaps and thus improve their ability to foster learning. The shift in the role of a teacher from a traditional “sage” to the modern facilitator requires a change in attitude and skills. Facilitation skills requires teachers to identify learning process, extent of scaffolding and support required for individualized student-centred learning. This workshop is aimed at supporting the facilitators to encourage self-directed learning skills amongst their learners.

During the workshop, the introductory focus will be on identifying the participants understanding of self-directed learning and how it is being practiced in their local context. With this background, the participants will then be introduced to the theoretical constructs supporting self-directed learning to co-construct and expand their understanding of SDL.

The next focus will be on exploring the different dimensions of self-directed learning such as establishing learning goals, locating resources, adopting activities, monitoring and evaluating growth. The facilitator’s role in scaffolding the learning process will be discussed in detail. Participants will relate to their existing context and look at rephrasing their understanding in the background of their new understanding.

The final phase will focus on the benefits and challenges of supporting self-directed learning in a digital era, with its extensive availability of resources and rapid pace of change. This section will focus on shared experiences to develop strategies to support self-directed learning and meaningful facilitation by the teacher.

Workshop Objectives

The workshop guides the participants to;

- Construct a shared understanding of Self-directed learning based on existing theoretical frameworks.
- Appreciate the role of facilitator in scaffolding the self-directed learning journey of students.
- Develop strategies to support self-directed learning in the digital era with particular emphasis on evolving roles of the teacher for a meaningful facilitation.

Who Should Attend

- Educationists who are involved in course design, program evaluation, designing of assessment strategies etc.
- Teachers from different disciplines who are required to develop self-directed learning skills amongst their learners

Pre Conference Workshops

- Members involved in faculty development initiatives particularly focusing on facilitation roles. Educationists involved in quality assurance processes, where self-directed learning is a requirement for accreditation

W2P7

Thursday 18th January 2024**12.30 pm – 4.30 pm****Workshop Room 2, Level 2, UCFM Tower, Faculty of Medicine, University of Colombo****Clinical Ethics Capacity Development in the Asia-Pacific Region: Clinical Ethics Round for Clinicians, Ethicists and Researchers Interested in Education**

Olivia Ngan (Hong Kong S.A.R.), Wai-Tat Wong (Hong Kong S.A.R.), Pacifico Eric Calderon (The Philippines)

Workshop Description

Clinical ethics capacity means healthcare professionals' knowledge and skills in making ethical decisions essential for healthcare workers to deal with the everyday complex and challenging ethical issues to guarantee high-quality patient care. However, it is necessary to acknowledge that healthcare professionals respond differently to ethically problematic scenarios in different clinical contexts in the Asian-Pacific region, where there are other cultural contexts, social attitudes, ethical guidelines, legal frameworks and resource availability. Cultural context and social attitudes shape health professionals' beliefs and the public's expectations around obligation and rights in healthcare. Moreover, ethical guidelines and frameworks drafted by different professional organisations advise healthcare professionals on their ethical decisions around specific areas of clinical practice. Legal systems safeguard the public's fundamental human right to receive healthcare, while resource availability affects healthcare professionals' allocation of expensive and scarce services within the community. Understanding these differences is crucial for fostering a comprehensive and inclusive approach to clinical ethics.

There is a growing recognition of the importance of capacity development and, therefore, education in clinical ethics to address this need. Clinical ethics education helps healthcare professionals grasp the underlying ethical principles relevant to clinical practice, including but not limited to autonomy, beneficence, non-maleficence, and justice. It also enables them to identify and analyse ethical issues, effectively communicate with patients, families, colleagues, and other healthcare professionals, and recognise and manage their biases and values that may impact ethical decision-making. Additionally, it equips them with the tools to navigate complex situations like end-of-life care, resource allocation, and conflicts between patients and healthcare providers. However, healthcare professionals have limited opportunities to receive clinical ethics education training, and the teaching resources are often inadequate in the Asian Pacific region.

Workshop Objectives

This proposed workshop, facilitated by members of the Asia Pacific Bioethics Education Network (APBEN), aims to start a conversation about exploring the clinical ethics capacity training needs in the Asia-Pacific region. The workshop will involve interactive discussions and analysis of case studies to explore the needs, fundamental principles, and resources necessary to develop clinical ethics capacity in the region.

Who Should Attend

Clinicians, medical educators, ethicists and researchers with or without prior experience in clinical ethics are encouraged to attend the workshop. Participants are expected to present cases they have

Pre Conference Workshops

encountered to initiate an ethics discussion during the workshop. The discussion will involve an in-depth analysis of decision-making and implementation to manage ethical dilemmas.

W2P8

Thursday 18th January 2024

12.30 pm – 4.30 pm

Workshop Room 1, Level 1, UCFM Tower, Faculty of Medicine, University of Colombo

Training of High Performing Individual Members (Teams): Solutions to Real World Challenges?

Predeebha Kannan (Singapore), Cindy Ching Siang Lee (Singapore), Richard Meng Kam Lee (Singapore)

Workshop Description

Inter-professional collaborative practice (IPCP) is an important component of the dual “patient-centred and healthcare professional friendly’ delivery of healthcare. We use a novel, facilitated, experiential workshop, incorporating a cognitive design thinking approach, utilising case-scenarios of patients in life/health transitions, for the purposes of cross-cultural service-oriented inter-professional healthcare team training. It enables diverse primary healthcare team members, to apply their individual and team members’ collective expertise, to optimally manage patients presenting with complex bio-psycho-social challenges in the simulated settings.

After identifying the contextualised patient healthcare dilemma, team members are invited to co-create suitable solutions for managing such complex patients. The co-creation process is facilitated through adult learning principles, reflections, interactive activities including constructive learning using cognitive design-thinking approaches. This educational process capitalises on interprofessional competencies (role clarity, shared responsibilities, interprofessional cross-cultural communications and teamwork) with patient needs being prioritised in the simulated shared decision-making, between patient and healthcare teams.

Structure of workshop includes:

1. Check-in activity
2. Mini-lecture on Inter-professional Education (IPE) and Inter-professional Collaborative Practice (IPCP), adapted cognitive design thinking and Co-creation frameworks.
3. Simulated Patient Scenarios/ Narratives
4. Activity on Applying Cognitive Design Thinking approach
5. Interactive session applying facilitated fishbowl techniques, design thinking, peer observation and reflections in-action
6. Reflections on-action and Feedback (using a technology enabled tool -mentimeter)

The teaching strategies utilised in this, interactive design- thinking, constructivist, interprofessional, patient-oriented training, is aimed at optimising teamwork and performance of diverse healthcare teams. This approach is deemed applicable across different models of healthcare delivery, team compositions, and practice sites.

Workshop Objectives

1. Experience interprofessional team learning, using a patient’s ‘healthcare lived-experience’ case-scenario/narrative.

2. Participate in applying an adapted cognitive design-thinking learning approach to manage patients' biopsychosocial healthcare-transition dilemmas.
3. Immerse in an interactive activity to co-create solutions for a simulated patient's 'life-journey healthcare transition' challenge.
4. Reflect on the application of hybrid, inter professional learning and collaborative practice competencies and design-thinking principles, to improve team cohesiveness and collectively co-create solutions to healthcare challenges.

Who Should Attend

This workshop would be ideal for:

- Senior pre-professional students from medicine, nursing and allied health faculties
- Healthcare professionals (Drs, Nurses, Allied Health and Administrators) who work with patients with multiple bio-psychosocial issues and multiple morbidities
- Healthcare professional educators and professionals involved in or who are passionate to improve on interprofessional education and collaborative practice in both institutional and community healthcare settings.
- Healthcare professional educators, clinicians and administrators who work in teams, and/or are involved in planning, training of teams consisting of diverse healthcare professionals who have diverse personalities, agendas, goals and priorities for their patients and healthcare services delivered.

Opening Keynote Address

Thursday 18th January 2024

7.20 pm - 7.50 pm

Main Auditorium, Ground Level, Faculty of Medicine, University of Colombo, Sri Lanka

AI and Health Professions Education: "Somewhere Over the Rainbow"

Ronald M Harden, United Kingdom

The song, "Somewhere Over the Rainbow", captures the essence of our hopes and dreams. In health professions education, there is a very real hope and optimism that the dream of AI will come true and that AI will develop to support, among other things, the personalization of learning, the provision of assistance for students, and for teachers the saving of time they spend undertaking repetitive tasks including assessment. The idea of "somewhere" suggests a longing and yearning, perhaps for an unreachable goal. But with the experience already gained, we can be confident that AI is not just a dream but a reality. The song associated with Dorothy, in "The Wizard of Oz", implies a belief in magical places. The concept of AI may seem magical, just as television and radio were considered when they were first invented.

Despite the challenges and adversity faced, Dorothy continued on her journey to find the place "over the rainbow". We can find, with our own endeavours, our own AI version of "somewhere over the rainbow," where our troubles melt away and our dreams come true. Obstacles that we need to overcome include the use of technology to complement not replace teachers, ethical issues, data privacy and the important and changing role of teachers and students. AI is not just a dream. It is a rapidly evolving reality that will play a major role in health professions education.

Symposium 1

 Friday 19th January 2024

9.00 am – 10.00 am

Lotus Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

Developing an Academic/ Clinician Scientist

Developing Academic Surgeons and Physicians in Pakistan: Opportunities and Challenges

Yawar Hayat Khan, Pakistan

SL Perspective - A Roadmap for a Resource Limited Environment

Aloka Pathirana, Sri Lanka

Fantastic Beats and Where to Find Them: Reflections of a Medical Ethics Scholar and Teacher

Pacifico Eric Calderon, The Philippines

Sri Lankan Clinical Research: A Personal Odyssey

B J C Perera, Sri Lanka

Symposium Description

Developing Academic Surgeons and Physicians in Pakistan: Opportunities and Challenges:

Yawar Hayat Khan, Pakistan

Health care is a knowledge-intensive industry. The knowledge used by health care professionals to treat patients is derived from the best available research evidence and there is an understanding that best practices rely on research evidence. However, despite its importance the link between knowledge generation (research) and knowledge application (practice) has been described as tenuous. In terms of linking research and practice, clinician–scientists are considered to be ideally placed to bridge this gap. Their importance was flagged in the early 1900s, with Meltzer advocating for medical professionals (clinicians) who are competent in conducting scientific research rather than relying on external researchers to set the research agenda. To date, titles such as physician–scientist, clinician–scientist, and nurse–scientist are used to describe doctors, allied health professionals and nurses working simultaneously in clinical and research contexts respectively. The current presentation will provide insights into how Clinician-Scientists connect research and practice and also highlight the potential challenges that come across their journey. No doubt, Academic Leadership must look beyond our individual institutions in supporting physician- scientists. We must continue to advocate to remove barriers that dissuade physicians from pursuing a research career. Some of the challenges that uniquely affect physician-scientists are decreases in funding for clinical research infrastructure, the conflation of translational human studies with clinical trials and an increasing regulatory burden.

Sri Lankan Perspective - A Roadmap for a Resource Limited Environment:

Aloka Pathirana, Sri Lanka

While there is undoubtedly a crucial demand for clinical research in developing countries, clinicians in these settings encounter numerous challenges. Despite a substantial caseload that presents numerous research prospects, administrative issues, insufficient recognition and incentives, as well as limited funding and support facilities persist, constraining research output. Addressing these issues through proactive measures by both administrators and professional colleges holds the potential to bring about a transformative impact.

Fantastic Beats and Where to Find Them: Reflections of a Medical Ethics Scholar and Teacher:

Pacifico Eric Calderon, The Philippines

In this presentation, I will share my personal journey as a Filipino physician working in clinical ethics and medical education contexts. Using my experiences as a teacher and scholar as a template for reflection, I will share the personal nuances that shape my understanding of and aspirations for professionalism and ethics in medical education and practice. My aim is to craft a narrative that not only informs but also sparks interest and invites conversations on the crucial subject of bioethics education. This presentation weaves together an academic narrative and personal reflections, addressing essential themes such as reflective practice, interdisciplinary proficiency, educational leadership, mentoring, and the perpetual pursuit of avenues to cultivate professional identities.

Sri Lankan Clinical Research: A Personal Odyssey:

B J C Perera, Sri Lanka

This presentation deals with a personal journey in Sri Lankan Clinical Research. The progress of it was triggered by an initial baptism by fire, stoked later by a penchant for research, coupled with the need to do clinical research in areas of the country that were even beset with meagre facilities. Some fortuitous circumstances enabled the undertaking of certain initiatives that made a difference to paediatric practice in Sri Lanka. Starting initially with work on childhood respiratory disorders, the process branched off into several other areas. It was a roller coaster ride at times but the rewards have been many, mostly of personal satisfaction and embellished by accolades for making some contributions towards progress in child healthcare. There were no personal benefits or career advancement rewards associated with this endeavour. The lessons learnt included the adage that if there is a will, there will always be a way.

Symposium 2

 Friday 19th January 2024

9.00 am – 10.00 am

Jasmine Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

AI, Medicine and Medical Education in Resource-Constrained Settings

Leveraging AI for Enhanced Training of Primary Health Professionals in Timor-Leste

Lois Hong, Timor-Leste

Preliminary Findings from a Scoping Review of Machine Translation in Medical Education, and Its Limitations in Low- Resource Languages

Raphael Merx, Indonesia

Symposium Description

In this symposium, a cardiologist, a family physician and a software engineer turned development professional will explore the synergies and challenges of harnessing AI in medical education, with particular focus on resource-constrained settings.

Dr Lois Hong, a family physician based in Timor-Leste, will describe methods for enhancing training for primary health professionals through AI, using the example of ChatGPT-3.5. She will highlight ChatGPT-3.5's advantages in rapidly generating culturally appropriate content and individualised feedback for learners, while describing pitfalls common in a low-resource context.

Mr. Raphael Merx, a researcher with a track record in successful software engineering in Papua New Guinea and Timor-Leste, will present insights from a review of machine translation (MT) in medical education, emphasizing challenges and opportunities in low-resource languages. He will discuss strategies to enhance MT quality, recognizing its vital role in providing access to medical knowledge despite the paradoxical quality gap in low-resource languages. Raphael will summarise key strategies from the machine learning and public health literature that will help listeners increase the quality of MT.

The discussion will explore how these AI-focused approaches complement each other, particularly in resource-constrained settings. Collectively, they will emphasize the disruptive potential of AI in healthcare and medical education to level the playing field for all healthcare professionals in training.

Leveraging AI for Enhanced Training of Primary Health Professionals in Timor-Leste:

Lois Hong, Timor-Leste

This talk addresses a critical need in global health professions education: empowering primary health professionals in resource-scarce settings through Artificial Intelligence (AI)-augmented training and coaching. First, I provide an overview of AI applications for clinician educators and demonstrate its role in augmenting and personalizing learning experiences for healthcare workers in low-resource settings. The adaptability of AI-based training across diverse healthcare roles is highlighted, underlining advantages such as cultural fidelity, rapid material generation, and language barrier bridging.

From a clinician educator's perspective I will discuss important aspects of AI-generated content, focusing on minimizing hallucination risks and ensuring content accuracy through validation and feedback mechanisms. The practical implementation section presents case studies that showcase successful integration of AI in training programs for rural healthcare professionals and community health workers. These cases highlight improved learning outcomes and enhanced healthcare delivery, emphasizing the potential of AI in global health initiatives.

In summary, this talk underscores the potential of AI to improve healthcare training, particularly in resource-scarce settings. The advantages of AI include its adaptability to cultural contexts and its capacity for rapid and accurate content generation. I hope to encourage further exploration and experimentation with AI in global health initiatives. By leveraging AI to optimize healthcare training, we can lower barriers for primary health professionals to access learning opportunities, improve their knowledge and teach others.

Preliminary Findings from A Scoping Review of Machine Translation in Medical Education, and its Limitations in Low-Resource Languages:

Raphael Merx, Indonesia

As part of this cross-disciplinary review covering both machine learning (ML) and public health research, we find that large improvements in MT quality for high-resource languages over the past five years have not translated to similar improvements for low-resource languages, where the rate of hallucination is higher. We review evaluations of medical MT in this context, and find that most research deems the quality of MT still too low to be used reliably.

Despite these risks, MT is more likely to be relied on in a low-resource context, as typically less medical text is available in low-resource than in high-resource languages. This paradox underscores a critical gap in the existing research landscape: while MT tools may be deemed unsatisfactory in terms of quality, their usage can be a necessity in settings where access to medical text in the native language is limited.

Finally, we summarise research strategies brought by the machine learning and public health literature to increase the quality of medical MT. This includes automated quality estimation to better guide users in what MT outputs to use or not; the incorporation of high-quality medical corpora to improve MT quality; and synthetic medical text generation through language models.

Symposium 3
Friday 19th January 2024
9.00 am – 10.00 am
Cinema Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka
Open Education in Health Professions Education: Journeying Beyond Open Access
Understanding Open Education

Tao Le, United States of America

Trends in Teaching and Learning with OER: from Microlearning to Microscholarship

Goh Poh-Sun, Singapore

Collaboration Models for Open Education Practices

Ly Huu Tuan, Viet Nam

The Role of Learners in Open Education

Kenneth Lam, Taiwan

Symposium Description

High-quality health professions education (HPE) can be expensive to develop and is mostly produced by a few large publishers. Open education resources (OER) evolved to address critical cost and accessibility issues as part of the open education movement and are now well-established in higher education. The use of OER is rapidly growing in higher education. Nearly half of all educators in US higher education use OER and 29% require the use of OER, up from only 13% five years ago. OER is often seen as synonymous with open education in health professions education (HPE). However, it is imperative to note that open education is a centuries-old movement that goes beyond OER and encompasses collaboration and inclusivity tools and practices that are free of legal, financial and technical barriers.

In this symposium, we venture beyond OER to unravel the broader concepts and implications of open education for HPE. The discussion encompasses a careful delineation of open education and its fundamental principles, followed by an analysis of the prevailing trends influencing teaching and learning through OER. Then, we will discuss the role of collaboration and trust-building in developing shared/open education practices that can thrive even in limited resource settings. Finally, we will explore the role of learners in open education from both a co-creation and inclusivity perspective.

Understanding Open Education:

Tao Le, United States of America

Open education is a transformative movement aiming to foster inclusivity and democratize learning through the removal of traditional barriers that impede educational access. Originating from philosophical foundations dating back centuries, open education has evolved substantially, synergizing with advancements in digital and network technologies to foster a learner-centric model grounded in principles such as connectivism and self-regulated learning. This presentation will provide a broad overview of the open education movement, its historical progression, theoretical foundations,

and its connections with other open movements like open science and open source. We will examine how the movement leverages technology to facilitate a globally connected learning environment, promoting learner autonomy and agency. Highlighting initiatives like MOOCs, curriculum exchanges and OER, we will explore how open education has grown into a mainstream institution in higher education and is now transfiguring the health profession education ecosystem.

Trends in Teaching and Learning with OER: From Microlearning to Microscholarship:

Poh-Sun Goh, Singapore

Leveraging the power of OER and Open Digital Practices, we envisage a future where learning transcends the traditional classroom and evolves into a continuous, accessible, and inclusive journey. In this presentation, we explore the transformative potential of "Micro-Learning, Micro-Practice, and Micro-Scholarship" in making educational and professional development accessible to all, one micro-step at a time. With a focus on "small bites" of learning, we will explore the intricate roadmap of progressing gradually but significantly through a structured pathway of micro-steps, mirroring the compounding growth observed in nature. Each step is nurtured through meticulous instruction, guided reflection, and feedback, supported by an inclusive Community of Practice (CoP). We will highlight the role of contemporary technology tools and platforms in not only supporting these micro-steps but in facilitating an environment that fosters sharing and collaboration through a network of individuals and institutions, both formal and informal. We promote the co-creation and curation of content that is reusable across platforms, promoting a culture of sharing and collaboration through open access documents, websites, and digital repositories.

Collaboration Models for Open Education Practices:

Ly Huu Tuan, Viet Nam

Open education practices are a major pillar in the open education movement and is critical in making education more accessible, inclusive and learner-centric, even in low resource environments. Key to this is collaboration and sharing across institutions and even continents. We will discuss the experience of the University of Medicine and Pharmacy at Ho Chi Minh City as it forged a robust collaboration with the Partnership for Health Advancement in Viet Nam (HAIVN), a non-governmental organization affiliated with Harvard Medical School; the Ministry of Health; and other leading medical schools in Viet Nam. This partnership was centered on leading a comprehensive curricular transformation that would lead to the implementation of a modern competency-based medical education framework. We will explore how this initiative facilitated the sharing and contextualization of medical education models and best practices for the benefit of Viet Nam. This open cooperation framework has contributed to the school's ability to provide leadership in the region and has rippled to other institutions.

The Role of Learners in Open Education:

Kenneth Lam, Taiwan

The International Federation of Medical Students' Associations (IFMSA) emphasizes the indispensable role of open access in all forms of medical education and published research, such as scholarly presentations, research abstracts, peer-reviewed and non-peer-reviewed journal articles, and conference papers, to address health disparities and improve health outcomes. We acknowledge the

crucial need to allocate more resources and establish systems that promote open education and science practices among academia, researchers, and students. We argue that open access is not merely an ideal but a necessity for fostering collaborative scientific progress.

This symposium will discuss how IFMSA's Standing Committee of Medical Education develops and disseminates our open access resources through a digital repository containing our manuals, toolkits, policy documents, past publications and reports, as well as materials from campaigns and webinars. Our digital repository also contains links to other open-source resources that have been referenced in previous training sessions during our workshops and General Assemblies. We also will highlight our partnership and involvement with the Medical Student Alliance for Global Education (MeSAGE). This collaboration has empowered students to collaborate with their peers and medical educators in authoring open access educational materials from topics such as learning and teaching principles and diversity, equity, and inclusion to digital health and sexual and reproductive rights.

Symposium 4

Friday 19th January 2024

10.30 am – 11.30 am

Lotus Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

Curriculum Development in the Era of Technology

Teaching Basic Sciences in the Era of Technology

Levente Kiss, Hungary

How Can Technology Assist to Enhance Medical Training Institutions

Vishna Devi Nadarajah, Malaysia

Use of Technology to Develop Future Faculty

Susie Schofield, United Kingdom

Leveraging on Technology to Improve Clinical Skills and Reasoning

Lau Tang Ching, Singapore

Symposium Description

Medical education is in a turbulent period which might lead to similarly overarching consequences like the Flexner Report of 1910 which resulted in an immense transformation of medical education. This statement holds especially true if we look into the state of teaching basic sciences. Sweeping curricular changes frequently described as “reform curricula” are becoming more and more prevalent which – like an unwanted side effect – often led to the diminishing importance or even “catastrophic neglect” of basic sciences. At the same time, the more widely available and constantly advancing technological possibilities of our current era – boosted by the COVID-19 pandemic – are providing several possible solutions to this current setting but are bringing new challenges as well. What will be, then, the effects of technological advances (e.g. digitally available text resources, video lectures, podcasts, online communication platforms, educational laboratory technologies and artificial intelligence etc.) on the teaching of basic sciences? Who will be the teacher in this era and what drifts or shifts will occur in his/her role? What kind of expectations will students have and what are the implications of these regarding teaching and assessment? What resources will or shall be available to learn? What might be the role of lectures, books, videos, podcasts, consultations, laboratory experiments etc. from now on? Furthermore, how can technology help to achieve a better delivered and learned basic science curriculum and not just have a better planned one? The gap between what’s possible and what’s feasible is also to be considered. This lecture will revolve around these questions aiming to provide possible avenues on how to address them. Along with this it is also pondering with the possibility of a “Flexner 2.0” curriculum maintaining that the best possible curriculum for teaching basic sciences is highly context dependent and there is no gold standard to it.

Symposium 5
Friday 19th January 2024
10.30 am – 11.30 am
Jasmine Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka
Nursing Education and Credentialing
Nursing Education and the Landscape of International Accreditation

Nell Ard, United States of America

NCPD and the Future of Learning and Professional Practice

Jennifer Graebe, United States of America

Bolts and Nuts in Preparing for Nursing Programme Accreditation

Lydia Lau Siew Tiang, Singapore

Symposium Description
Nursing Education and the Landscape of International Accreditation:

Nell Ard, United States of America

Quality Nursing Education is a primary pillar in the future of healthcare across the world. Many nursing programs are struggling to meet the demand in providing the quantity of new nurses needed while maintaining the quality of the nursing educational program. This session will provide an overview regarding international nursing accreditation including benefits and opportunities to pursue international accreditation.

NCPD and the Future of Learning and Professional Practice:

Jennifer Graebe, United States of America

In an ever-evolving healthcare landscape, nurses and healthcare organizations must prioritize ongoing professional development to provide high-quality care, adapt to new technologies, and address emerging healthcare challenges. This global message emphasizes that nurturing a culture of growth and learning within the nursing profession is essential for enhancing patient outcomes, advancing healthcare practices, and promoting the well-being of healthcare professionals. By recognizing growth and learning as key priorities, nurses can effectively meet the dynamic demands of their roles, contributing to the overall improvement of healthcare systems worldwide. Fostering a culture of growth and learning, through ANCC Accreditation, will contribute to the advancement of healthcare systems on a global scale, ensuring the delivery of high-quality, patient-centered care and promoting the overall well-being of nurses as professionals and the populations they serve.

Nuts and Bolts in Preparing for Nursing Programme Accreditation:

Lydia Lau, Singapore

Maintenance and evaluation of nursing education programmes are important to enhance quality nursing practice. Applying the principles of quality assurance and standard of practice, as well as accreditation of nursing programmes, is key to producing nurses who are future-ready for the healthcare setting. The accreditation process helps the key stakeholders develop a culture of quality assurance and improvement and build trust in the quality of the nursing programme. Going through the accreditation process can be challenging due to the rigorous review process and stringent standards. This session will provide insight using a systematic approach in preparing for programme accreditation from the experience of an educational institution in the Asia Pacific context.

Panel Discussion 1
Friday 19th January 2024
4.30 pm – 5.30 pm
Cinema Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka
Education Leadership in a Digital Era

Chen Zhi Xiong, Singapore

Pandula Siribaddana, Sri Lanka

Neil Osheroff, United States of America

Peter G M de Jong, The Netherlands

Subha Ramani, United States of America

Kimberly Dahlman, United States of America

Description

Digital transformation has dramatically changed the way that we educate our trainees, interact with our faculty and staff, and communicate our views to others within and outside of our disciplines and organisations. It has made communications easier, but at the same time has raised a plethora of challenges for leadership. Individuals and organisations that do not adapt to changes that accompany the digital era or struggle to cope with these challenges often fail at their missions. In order to cope with the challenges brought on by digital transformation and leverage the advantages of new opportunities and platforms, we have assembled a panel of distinguished individuals who currently have leadership positions in national and international educational associations that are located in South Asia, Southeast Asia, North America, and Europe. The panel will discuss a variety of aspects related to educational leadership in a digital era including, but not limited to, cultural intelligence as an essential leadership skill, how to handle disruptive educational technologies, adapting to change and managing unpredictability in a complex world, communicating vision, setting direction and inspiring execution taking into account both the real world and social media setting, and facilitating digital inclusion and accessibility for faculty, trainees, and members of educational organisations. The discussion will help educational leaders and decision makers to critically reflect on their practices and contribute to formulating a collective vision for education leadership in a digital era.

Plenary 1

Friday 19th January 2024

11.45 am – 12.15 pm

Lotus Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

AI in Education: A Futuristic Vision and a Pragmatic Approach

Chinthaka Balasooriya, Australia

This plenary presents a vision for AI in Education, and outlines a plan to make this a reality. The vision comprises of three elements: creating a Personalised Digital Learning Companion (PDLC), developing customised databases in medicine, and designing a novel educational model.

The most innovative aspect of the vision is the creation of a Personalised Digital Learning Companion (PDLC). This will serve as the interface for students to interact with underlying customized databases. Students would share their entire educational experience with the PDLC. A key aim of the educational experience will be to develop the student-PDLC duo to an optimum level, with the PDLC developing as a complementary half of the duo, personalised to each student. The student-PDLC duo will learn together, be assessed together, will graduate together and enter the workforce together. Students will thus be motivated to develop the PDLC to the highest possible level, with personalisation and customisations to optimally benefit them in future practice. The first half of the plenary will outline the features of the PDLC and the overall vision.

The second half of the plenary will take a more pragmatic approach to explore how this vision might be brought to fruition. The need for a new educational model to harness the potential of AI will be discussed and its key features will be explored. The need for targeted educational research to guide an evidence-based approach to incorporating AI in Education will be highlighted.

The plenary is designed to stimulate robust discussion around a futuristic vision of AI in Education, and generate scholarly debate around practical approaches that can make it a reality.

Plenary 2

Friday 19th January 2024**11.45 am – 12.15 pm****Jasmine Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka****Crafting an Academic Career: A Clinician-Scientist's Perspective**

Shervanthi Homer-Vanniasinkam, United Kingdom

Translational research (TR) describes a continuum of research in which basic science discoveries are utilized to prevent or treat human disease. It is an iterative process wherein such discoveries are integrated into clinical applications, and conversely, clinical observations are used to generate research foci for basic science: the 'bench to bedside and back to bench' approach.

Whilst the term has been in use for over three decades, the implementation of TR has continued to be challenging. Clinicians who are keen to pursue TR are hindered from doing so by the ever-increasing demands on their time with clinical duties, teaching and administration. Despite these practical problems, there remain opportunities to engage in fruitful TR through collaborative working models and cross-disciplinary programmes of study.

These endeavours will ensure that we continue to harness science and technology for the benefit of human health.

Plenary 3

Friday 19th January 2024

11.45 am – 12.15 pm

Cinema Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

Teaching Biomedical Sciences across the Medical Curriculum

Neil Osheroff, United States of America

It is important for health professionals to have a strong understanding of the biomedical sciences that underlie clinical practice. To address this critical issue and teach the biomedical sciences in a more holistic context, many medical and health professional schools have transitioned their pre-clerkship phase from stand-alone discipline-based science courses to integrated blocks that combine foundational and clinical sciences. For these blocks to achieve their desired outcomes, it is critical for them to go beyond curricular integration and incorporate foundational and clinical sciences at the session level. This can be accomplished by a variety of approaches but is most easily addressed by the use of pedagogical changes that emphasize active learning. In some instances, integration in these active learning sessions goes a step further to include competencies such as professionalism, communication skills, etc. Although many schools have successfully integrated foundational science and clinical materials in the pre-clerkship phase, the overt integration of biomedical sciences into clinical courses has proven to be challenging. This talk will discuss the importance of curricular and session-level integration of biomedical and clinical sciences, the cognitive science behind integration, and the successes and unique challenges that accompany curricular and session-level integration in the pre-clerkship and clinical phases of health professional education. It will also discuss the effects of curricular integration on the career paths of science educators and how these individuals play an increasing valuable role in modern health professional education.

Symposium 6
Friday 19th January 2024
1.45 pm – 2.45 pm
Lotus Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka
Enhancing Education Through the Use of AI
Enhancing Education Through the Use of AI: An Exciting, Essential and Engaging Journey

Ronald M Harden, United Kingdom

Enhancing Education Through the Use of AI: Practical Steps to Make a Meaningful Start

Chinthaka Balasooriya, Australia

Clinical Education and AI

Subha Ramani, United States of America

Challenges of Using AI In a Developing Country Context

Aloka Pathirana, Sri Lanka

Symposium Description

This interactive symposium builds on the ideas presented in the Keynote Address and Plenary 1. Specifically, the symposium will explore pedagogical issues to meaningfully incorporate AI into education and seek audience input to create a meaningful plan to harness the full potential of AI to enhance the quality of education. The discussion will include an exploration of key concerns and challenges that need to be addressed as we enter a new era. The symposium will facilitate discussion of key aspects such as AI in clinical education and the challenges of using AI in developing country contexts. Clinical teaching and AI will be introduced in this session, previewing concepts that will be expanded upon in Plenary 4. Audience members are encouraged to contribute ideas, share their concerns and collaborate in a process to collectively design a meaningful way forward.

Symposium 7
Friday 19th January 2024
1.45 pm – 2.45 pm
Jasmine Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka
Clinical Sciences and the Human Being - The Waves in Modern Technological Advances
Human-centered AI in Healthcare

Nathasha Luke, Singapore

Next Generation MBBS Graduates – the Context of AI in Anatomy

Satish R Lakshminarasappa, Singapore

Embodying Humanism in Medical Science Education

Ann Toh, Singapore

Celestial T Yap, Singapore

Technology, Ideals and Values in Medical Education

Goh Yaw Chong, Singapore

Symposium Description

The advent of AI and modern technologies as expanding modalities for learner engagement in health professions education, compared to real person and patient experience in training, has posed challenges in how we as educators, can bring the human being to life in a virtual and simulated world.

Can we teach clinical sciences whilst still engaging the humanistic faculties in our students? Can we impart the essence of human interactions that is so crucial to the professions concerned with healing? Can we teach the sciences using cognitive and logical approaches, whilst still evoking connections to the human personas behind the physicians, therapists, health-providers and patients?

Human-centered AI in Healthcare:

Dr. Nathasha Luke, Singapore

Artificial intelligence offers support across multiple stages of the healthcare delivery process, from triage to treatment planning. Despite rapid advancements in technology, the clinician's role in providing the humanistic touch remains irreplaceable.

Future healthcare environments should streamline time-consuming tasks such as documentation, diagnosis, and treatment plans to be AI-driven, allowing clinicians to focus on what truly matters- the patient.

The current generation of medical undergraduates will be practicing in heavily AI-driven work environments in the future. In addition, some of them will be developing careers in AI and taking initiatives in novel AI technologies in healthcare. Undergraduate education should highlight the principle of ideal integration of AI into work environments, in a way the technology frees time for the clinician for more humanistic engagement, in a compassionate and empathic manner.

Next Generation MBBS Graduates – the Context of AI in Anatomy:

Satish R Lakshminarasappa, Singapore

Starting in August 2023 Yong Loo Lin School of Medicine (YLLSoM) embarked on a brand-new curriculum. We impart humane values to our first year MBBS students along with core subjects like Human Anatomy, Human Physiology, Biochemistry, Pathology, Microbiology, Pharmacology, Immunology and Ethics. At YLLSoM we teach Anatomy using cadavers whom we address as silent mentors. These silent mentors in many respects are in fact the “first patients” whom our medical students get to interact first. Without speaking a word, these silent mentors convey many life lessons to our medical students.

We employ digital resources while imparting gross and microscopic anatomy, along with Anatomage table, digital wall, and Complete Anatomy App. It is envisaged that when our students enter the clinical years and finally graduate from the Medical School, they are not just MBBS graduates but doctors with humane values who are compassionate and kind to their patients and treat them with dignity and respect. It is a lifelong commitment to uphold the highest moral values that society expects from the medical profession. We are considering the incorporation of Artificial Intelligence in our new curriculum, integrated with human values in the learning process. We will be sharing some preliminary findings at APMEC 2024.

Embodying Humanism in Medical Science Education:

Ann Toh, Singapore

Celestial T Yap, Singapore

Humanism encompasses the values and the art of doctoring. This talk explores how embodying humanism in medical science education involves ongoing intrapersonal work, reflexivity and integration of the educator’s self and identity, allowing one’s role of being a teacher, a doctor, a patient to intersect and inform an embodied narrative of walking the talk so that values are caught and not just taught in nurturing the key professional attributes at the heart of the medical profession. The talk will also explore how humanistic aspects can be integrated into the medical science and clinical curriculum for the health professions, drawing on experiences from the undergraduate medical curriculum at the Yong Loo Lin School of Medicine, including the evolution of educational approaches in the Respiratory System Block.

Technology, Ideals and Values in Medical Education:

Goh Yaw Chong, Singapore

Technological advances have provided an immense array of tools for medical education and training. Depository and access of information have been utilised to facilitate learning, posit relevance and consolidate knowledge. Most learning encounters require the presence of a teaching faculty member and this process is constantly being evaluated for its efficacy, reproducibility and accountability. Whilst technological advancements translate into potential improvement in terms of methodology over existing ways of teaching and training, there are non-technical aspects to the interaction between the students, faculty and patients.

Among the newer technologies, the advent of generative AI has been projected to provide unprecedented permutations to incorporate data analysis and interactive learning into medical training. The appraisal of the limitations of technology remains critical in designing and evaluating curriculum. An example is clinical examination of patients which is part of clinical decision-making and is a form of communication. Demonstration of this aspect of care requires understanding that beyond the technical aspects of medical care, the human being cared for needs mobilisation of resources which are not stored in a digital interface (not yet at least). There is in fact an emergent need for this aspect of care in medical education. The desired outcome is competent medical care delivered in a humane manner by a doctor for the community. This talk will explore the potential pitfalls and hazards of inappropriate application of technologies and the need for clarity on the professional attributes which need to be nurtured during medical training.

Free Communication Finale Session 1**Friday 19th January 2024****1.45 pm – 2.45 pm****Cinema Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka****Please refer to the conference website for the list of finalists.**

Symposium 8

Friday 19th January 2024

3.15 pm – 4.15 pm

Lotus Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

Beyond Diversity: Envisioning Inclusion in Health Professions Education Scholarship**Voices of Health Professions Education: Describing the Published Scholarly Landscape**

Sophia Archuleta, Singapore

Strategies to Promote Inclusivity in HPE Scholarship: Role of the Reviewer

Halah Ibrahim, United Arab Emirates (UAE)

Strategies to Promote Inclusivity in HPE Scholarship: Role of the Scholar

Shefaly Shorey, Singapore

Strategies to Promote Inclusivity in HPE Scholarship: Role of the Editor

Peter G M de Jong, The Netherlands

Symposium Description

Health professions scholars have more opportunities than ever before to experience increasingly diverse academic environments and to participate in cross-cultural exchanges. However, voices from the Global North continue to dominate the discourse and publications in medical education (meded) journals. This symposium will explore trends, issues, priorities and strategies relating to the inclusion of Global South voices in health professions education (HPE) scholarship. Speakers will describe the current landscape, as well as challenges of diversity and inclusion from the point of view of a scholar, journal editor and reviewer. Sharing of perspectives will lead to meaningful discussion on how inclusion of more diverse voices in HPE scholarship can lead to a future meded landscape that embraces and values more diverse ways of teaching and learning.

Symposium 9**Friday 19th January 2024****3.15 pm – 4.15 pm****Jasmine Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka****From the Past to the Future – Over a Century of Medical Education in Sri Lanka and Singapore****Symposium Description**

The Symposium will focus on the Faculty of Medicine, University of Colombo and the Yong Loo Lin School of Medicine, NUS. Both institutions have been pioneers in implementing innovative student-centered curricula in medicine and health professions. The speakers will reflect on over a century of experience that took place in these great institutions of learning.

The Faculty of Medicine, University of Colombo has a rich legacy dating back to its establishment in 1870. Recognized as the premier medical school in Sri Lanka, the faculty has stood at the forefront of medical education, research, and community health services for over one hundred and fifty years.

Founded in 1905, the Yong Loo Lin School of Medicine, NUS holds the distinction of being Singapore's inaugural institution of higher education and serves as the origin of the National University of Singapore.

Rooted in academic tradition and embracing a forward-thinking mindset, both medical schools are dedicated to fostering the future leaders in healthcare who will influence the evolution of healthcare in the Asia Pacific region and beyond.

Free Communication Finale Session 2**Friday 19th January 2024****3.15 pm - 4.15 pm****Cinema Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka****Please refer to the conference website for the list of finalists.**

Symposium 10
Friday 19th January 2024
4.30 pm – 5.30 pm
Lotus Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka
Simulation Based Patient Safety Education: Engaging the Digital Learners
Digital Natives and Changing Teaching Learning Practices

Ashokka Balakrishnan, Singapore

Adaptations to Undergraduate Interprofessional Simulation Based Learning

Sophia Ang, Singapore

Addressing Cultural and Psychological Perspectives to Improve Effectiveness of Simulation

Sayaka Oikawa, Japan

Post Graduate Patient Safety Simulation: Controlling the Learning Environment

Douglas Paull, United States of America

Game-Based Simulation: Improving Learner Engagement and Retention

Alfred Kow, Singapore

Symposium Description

There have been changing paradigms in how learners are provided information, how they connect socially and what constitutes fun and play as they interact in their environment. The advent of internet in global scale from late 90s changed the way the information was shared. The last 15 years have seen the significant presence of mobile and handheld technology that have been integral part of how a generation has been groomed to negotiate academic and social environments.

Healthcare environments need the junior practitioners in medical, nursing and allied health care to be able to connect in physical, humanistic spaces with interactions and information that are not always presented digitally but requiring interpersonal skills and collaborative learning practices.

Errors and events tend to occur with breakdown in communication, lack of prompt recognition and escalation, absence of timely action or wrong execution. The process of making the healthcare system safe begins with understanding the digital learner, the available teaching and learning practices, making a needs analysis of what is required and what can be achieved within the resources that the system can afford.

The symposium is arranged in five-part sequence to address the themes that describe:

1. Digital learners and how the teaching learning platforms have evolved and how to make the connections between them.
2. What undergraduate interprofessional learning looks like and what were the adaptations that were made to enhance the collaborative learning to improve transfer of knowledge.
3. How the psychological safety of the learner is preserved and what cultural considerations were addressed to enhance the overall effectiveness of simulation-based learning environments.

4. Postgraduate and advanced practitioner settings and how the simulation-based learning contexts have to be refined and modified to achieve optimal learning.
5. Virtual and game-based learning that provide personalized learner adjusted content and timely feedback.

Digital Natives and Changing Teaching Learning Practices:

Ashokka Balakrishnan, Singapore

Education and the teaching learning platforms are evolving from didactics to more interactive, and engaging learner adjusted content. Yet the speed of academic transitions is not on par with the digital advancements. Assistive technology has further added complexities to how knowledge is presented by automation without the traditional processes of learners acquiring relevant information by manual search, assimilation of available content and filtering them.

This segment will provide an overview of what are the chief characteristics of digital natives and what has changed in how they learn and assimilate new knowledge. Understanding how the teaching modalities have to shift to make enhancements to adapt to how digital natives skim and retain information will be presented.

The session will also address how the balance between engagement and imperative in having deep learning and covering large volume of content will be presented

Adaptations to Undergraduate Interprofessional Simulation-Based Learning:

Sophia Ang, Singapore

The undergraduate interprofessional teaching consisted of a full day session for medical, nursing, pharmacy and dentistry students that was a mix of didactic and interactive sessions. The changing paradigms on how students learn, the attention span and the need to have more contemporary ways of engaging digital learners led to few variations in the existing format.

The program was shortened to fall day, the content was presented with more engaging and immersive simulation sessions with interactions. The game based digital learning platforms with mandatory progression requirements in the mobile based application were introduced.

The experiences in how this transformation was achieved, the complexities in making the changes and the development of the module to its present format will be shared. The sessions required handling large student volumes to the range of 100-200 a day and the pandemic posed more restrictions and how this transition was digitally adapted will be discussed.

Addressing Cultural and Psychological Perspectives to Improve Effectiveness of Simulation:

Dr. Sayaka Oikawa, Japan

The digital natives display an apparent toughness on the outside with a crumbling core that is described as the “fried ice cream”. There are various tenets in how learners are posed with academic, social and personal conflicts and how they have to adapt to them.

Participation in interprofessional learning settings post the highest challenge where it exposes the learner to aspects of being observed in the public, the fear of being judged and the pressure of avoiding a failure.

Understanding the cultural perspectives from the social, academic, hierarchical, and organizational settings helps to understand the “thin air” in the simulation-based learning contexts. Novel methods of debriefing such as the “hollow centre approach” where no learner is put on spot but provide a discussive peer-assisted debriefing that enhances the effectiveness of learning objectives will be discussed.

Post Graduate Patient Safety Simulation: Controlling the Learning Environment:

Douglas Paull, United States of America

Post graduate learners are unique in the perspective that they need specialised focus to discipline based knowledge, core skills and need to perform at a higher level of application of knowledge and critical decision making. They have the imperative of the need to work seamlessly in teams and have managerial and interpersonal skills.

The simulation based educational content need to be optimised to the level of post graduate learners and require adequate focus and detail to engage them. These involve the choice of simulation platforms, the content, the construct and the ques that are introduced.

Once individual and specialty-based teams are developed then they have to be engaged in interprofessional simulation-based learning avenues. These require further modification on how digital natives interact, connect and communicate and the style of debriefing is also adjusted to contextual factors

Game-Based Simulation: Improving Learner Engagement and Retention:

Alfred Kow, Singapore

While the manikin-based simulations have their advantages, the practice readiness of the individual learner seems to be influenced by the time on simulation task and the level of engagement during the sessions with active and timely feedback from faculty. Virtual learning platforms provide the advantage of learner adjusted content in their own pace and space, with scope of time sensitive personalized feedback. Gamification has been deployed in many settings, and it is increasingly being used in medical education. At NUS Medicine, deployment of advanced technology in medical education and training has been an essential strategy to enhance the educational and training quality of our medical students. On top of Ipad games, we also actively deploy virtual reality technology in medical training. We shall share the journey of implementing this in NUS Medicine.

Symposium 11

Friday 19th January 2024

4.30 pm – 5.30 pm

Jasmine Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

Technology-Enhanced Learning: The Perspectives of Medical Students

Love It or Hate It: Artificial Intelligence in Support of Student Learning

Michelle Lam, Hong Kong S.A.R.

Revolutionizing Medical Education: Bridging the Gap Between Traditional and Digital Learning in Medical Schools

Kenneth Lam, Taiwan

Fostering Student Growth: Leveraging Technology for Effective Assessment and Continuous Improvement

Sharif Mohammed Sadat, Bangladesh

Technology in Supporting Student Collaborative Practices

Kosha Gala, India

Symposium Description

The integration of technology-enhanced learning has become a pivotal force driving transformation in medical education. As institutions restarted in-person curricular activities post-pandemic, educators and students have the opportunity to explore the integration of technological advances in enhancing student learning. This symposium delves into the impact of technology on the learning experiences of medical students. By embracing technology, medical education can offer a more dynamic and engaging learning environment that caters to the needs and preferences of students. The integration of technology in medical education encompasses a range of learning tools, including simulations for practical learning and online platforms for flexibility and hands-on experiences. These innovations make education more accessible and allow for active student participation. Technology has also revolutionized assessment methods used in medical education. Through the implementation of technological solutions, students can receive personalized feedback on their performance, enabling them to improve their learning strategies and make adjustments before high-stakes examinations. Online platforms facilitate the connection and collaboration of individuals from different professions, driving interprofessional education. This interdisciplinary approach allows students to develop a broader understanding of healthcare and strengthens their ability to work in multidisciplinary teams. More recently, artificial intelligence has been at the forefront of educational discussions with many different views and discussions on its ethical implications and effects on student learning. This symposium offers a platform to examine the impact of technology on the learning experiences of medical students. By embracing technology-enhanced learning, institutions can create a more engaging, personalized, and collaborative educational environment.

Love it or Hate it: Artificial Intelligence in Support of Student Learning:

Michelle Lam, Hong Kong S.A.R.

As major stakeholders in their own medical education, students are often the ones impacted the most by decisions made by their universities on the usage of learning tools. Around the world, artificial intelligence has made its way into various medical education components from creating patient simulations and communication exercises, to giving personalized feedback and effective study support. While some educators are excited to lead the way in harnessing its power to enhance curricular components, others are more hesitant to allow their students to use it in their courses. On the other hand, many students also have opinions on its place in the medical curriculum and the relevant ethical implications surrounding its usage.

This symposium will discuss students' perspective on the usage of artificial intelligence within their medical curriculum. This includes the beneficial impacts of artificial intelligence as well as issues surrounding potential biases and ethical concerns in artificially intelligent tools, data privacy concerns, and the implications of heavy reliance on technology. The inclusion of student voice in the discussions of integrating technological tools in medical education is crucial to support equitable and fair usage by both educators and students and is especially now more relevant than ever.

Revolutionizing Medical Education: Bridging the Gap between Traditional and Digital Learning in Medical Schools:

Kenneth Lam, Taiwan

Over the years, medical education has undergone a remarkable shift, embracing a diverse array of technology-enhanced tools and methodologies. These tools range from virtual reality simulations and online platforms to mobile applications, offering us as students unparalleled opportunities to engage with complex medical concepts and scenarios. This shift is not merely about staying current with technological trends; it's about fundamentally reimagining how we prepare future healthcare providers.

Throughout the presentation, we examine the advantages and challenges associated with technology-enhanced learning in the medical field. We explore the perspectives of medical students, drawing from our first-hand experiences, and surveys. These insights shed light on the ways in which technology has enriched their education, enhancing engagement, flexibility, collaboration, and real-world clinical simulations.

However, we would also address the challenges faced by students. By examining real case scenarios, we gain a holistic understanding of the journey towards effective technology integration in medical education.

Fostering Student Growth: Leveraging Technology for Effective Assessment and Continuous Improvement:

Sharif Mohammed Sadat, Bangladesh

This presentation will focus on the use of technology in assessment within the medical curriculum, highlighting the student voice and experience. It will explore various technologies, such as computer-

based exams, online quizzes, and adaptive learning platforms, and their potential impact on the effectiveness of medical education assessments. The presentation will discuss the advantages of technology-based assessments, including instant feedback for students, a wider range of assessment formats, increased efficiency, and personalized learning experiences. It will also address the role of faculty in supporting students in using technology-based assessments and emphasize the importance of ongoing evaluation and improvement to ensure their effectiveness in preparing medical students for clinical practice.

Technology in Supporting Student Collaborative Practices:

Kosha Gala, India

Interprofessional education is an important component of the curriculum in preparing students to graduate as a collaborative practice ready workforce. Ultimately, the aim is to improve teamwork practices for patient safety and for better health outcomes. However, there remains to be challenges that hinder its implementation such as the lack of time and resources needed to effectively engage students of different professions. Technological tools can serve as a potential solution in overcoming logistical challenges and maximizing opportunities in the curriculum for interprofessional collaboration. Student voice is important in reflecting on how the curriculum can make the most out of various synchronous and asynchronous online tools to better engage students in learning about, with, and from different professions early-on and throughout their curriculum.

Panel Discussion 2

Friday 19th January 2024

4.30 pm – 5.30 pm

Cinema Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

Blending Human Touch with Technology: The Future of Gender Based Violence Training in Healthcare Using Artificial Intelligence Driven Platforms

Anna Zatorska, United Kingdom

Johann Malawana, United Kingdom

Derek Gallen, United Kingdom

Sarah Malawana, United Kingdom

Sajade Kitchilan, Sri Lanka

Description

In today's rapidly evolving healthcare landscape, there exists a critical need for training methods that are both impactful and scalable, particularly in Low- and Middle-Income Countries (LMICs) where resources may be constrained. This necessity is amplified when discussing training on Gender-Based Violence (GBV), a deeply entrenched issue affecting healthcare workers and patients alike. The panel discussion proposal titled "Blending Human Touch with Technology: The Future of GBV Training in Healthcare using AI-driven Platforms" offers a timely, pertinent, and multi-faceted examination of two emerging trends in healthcare education: the integration of Artificial Intelligence (AI) and the focus on GBV training.

What makes this proposal stand out is its interdisciplinary approach, combining perspectives from healthcare education, technology ethics, and social sciences. It seeks to do more than just review or summarize existing methods; it aims to forward the conversation and set the agenda for future research and policy discussions. Audience participation is highly encouraged, further enriching the dialogue, and allowing for a more comprehensive look at the topic at hand.

The panel directly aligns with pressing global concerns and emergent research interests. It is a step towards understanding how cutting-edge technology and traditional educational practices can coalesce to form an effective, compassionate, and nuanced approach to GBV training. For these reasons, the proposed panel discussion not only satisfies academic curiosity but also addresses real-world complexities, making it an essential addition to any conference focusing on healthcare, education, technology, or social issues. In summary, this panel discussion proposal offers a much-needed platform for a balanced and in-depth discourse on the challenges and opportunities of incorporating AI in GBV training, particularly in LMIC settings. As such, it offers valuable insights that are critical for educators, policymakers, healthcare professionals, and technologists, and would be a compelling inclusion in any conference agenda.

"AI and Gender-Based Violence (GBV) Training: A Case for Technological Intervention:

"AI and Gender-Based Violence (GBV) Training: A Case for Technological Intervention," narrows down the lens to focus on a specific, and urgently needed area of healthcare training. GBV is a pervasive

issue that severely impacts the safety, quality, and effectiveness of healthcare provision, and thus, training healthcare workers is of paramount importance. Using concrete examples like the NLM chat platform designed for GBV training, the panel aims to provide a tangible dimension to the broader discussions on AI in healthcare education. The sub-topic looks at the feasibility, ethics, and potential impact of employing AI-driven platforms in such sensitive areas, pitting technological advantages against the traditional human touch.

Symposium 12

 Saturday 20th January 2024

9.00 am – 10.00 am

Lotus Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

Humanitas: Transformative Learning in Action
Philosophy, Origins and Concepts: Humanitas

Panduka Karunanayake, Sri Lanka

From Concept to Practice: Humanitas in Action

Santhushya Fernando, Sri Lanka

Is there a Learning Theory for Humanitas?

Saroj Jayasinghe, Sri Lanka

Personal Reflections and the Lessons I Learnt

Dinithi Fernando, Sri Lanka

Symposium Description

The experience of medical undergraduates throughout the world is weighted heavily towards acquiring scientific knowledge and practical skills for the workplace. Several adverse consequences are noted: gradual reduction in empathy, development of a dehumanized approach to patient care, burnout and loss of work-life balance.

The Humanities Society & Professional Stream (HSPS) of the University of Colombo Faculty of Medicine (UCFM) launched an experimental program, called *Humanitas* (Latin: loving what it is to be human), to explore the possibility of successfully addressing this imbalance. We used inputs unconnected to medical science and skills, consisting of inputs from the humanities and narratives. Based on the hypothesis that this could stimulate emotional experiences leading to cognitive responses resulting in transformative learning and a change of the worldview, attitudes and values. The incorporation of a series of sessions with non-medical content consisting of humanities and narratives into the undergraduate medical curriculum aimed at strengthening human values and work-life balance through transformative learning can be successful.

Philosophy, Origins and Concepts: Humanitas:

Panduka Karunanayake, Sri Lanka

This presentation will analyze the *Humanitas* Programme from an awakened viewer's perspective. The speaker who has witnessed all the Humanitas Programmes implemented so far will dissect the programmatic, thematic, content and delivery metamorphosis of this teaching programme. The speaker will visit the inner change that has occurred and the reflections on the programme as a teacher and a life course learner. This teaching programme started during the COVID pandemic has seen 11 episodes transitioning from an online webinar to an onsite one. The difference effects of chosen art, the human factor brought in by an array of speakers, the effect it has on the learning and reflective processes will be discussed by the speaker.

From Concept to Practice: Humanitas in Action:

Santhushya Fernando

The second presentation will share the actual process of converting the concept of Humanitas to its real time delivery. The Humanitas Programme uses a wide variety of works of art with the primary focus on endogenous art forms and art work. It has a policy of language equity where all material is presented in a manner that they can be comprehended by all students in the audience regardless of their natural language. The embedded decolonizing process of teaching material will be featured in the presentation. The intellectual artistic and moral reasoning that goes behind selecting featured art for Humanitas Programme and the process of imagination, organization, refinement and delivery and the methods of addressing challenges of directing an innovative teaching programme will be explored.

Is There a Learning Theory for Humanitas?:

Saroj Jayasinghe

The final presentation will summarize the salient points raised in the symposium and of the symposium and explore the underlying learning theories of the Humanitas Programme. The presentations will also explore how the Humanitas Programme also aligns with some of the theories on education, learning that are more endogenous to the Asian traditions of teaching and learning. The Humanitas Programme utilizes established teaching learning theories. This presentation will explore those theories and then take the audience beyond them to explore the possible neurophysiological theories that may be at play. Further the presentation will explore the more cultured and endogenous ideas of teaching and learning at play within the Humanitas Programme.

Personal Reflections and the Lessons I Learnt:

Dinithi Fernando

Personal reflections and the lessons I learnt: This presentation will analyze the Humanitas Programme from an awakened viewer's perspective. The speaker who has witnessed all the Humanitas Programmes implemented so far will dissect the programmatic, thematic, content and delivery metamorphosis of this teaching programme. The speaker will visit the inner change that has occurred and the reflections on the programme as a teacher and a life course learner. This teaching programme started during the COVID pandemic has seen 11 episodes transitioning from an online webinar to an onsite one. The different effects of chosen art, the human factor brought in by an array of speakers, the effect it has on the learning and reflective processes will be discussed by the speaker.

Symposium 13

Saturday 20th January 2024

9.00 am – 10.00 am

Jasmine Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

Teaching and Learning with Generative AI

ThatGPTeacher and Cerebral Classmate

Chen Zhi Xiong, Singapore

Should Medical Schools Revise Learning Tools in the Generative AI Era? – Performance of ChatGPT in Physiology and Biochemistry Modified Essay Questions Extracted from Tutorials and Case-based Learning

Nathasha Luke, Singapore

ChatGPT as a Tool to Promote Learning in an Undergraduate Scientific Inquiry Course

Ivan Low Cherh Chiet, Singapore

To Use or Not to Use, that is the Question! Introduction to AI in Education

Peter G M de Jong, The Netherlands

Symposium Description

The symposium provides an opportunity for educators, healthcare professionals, and policymakers to delve into the emerging domain of generative AI in higher education. Generative AI, encompassing natural language processing and computer vision, has become a transformative force in health professions and sciences education. This symposium serves as an introduction to generative AI and its use, and showcases comparative studies and practical uses in various educational contexts. Participants will gain insights into how generative AI can be leveraged to enhance learning experiences, generate educational content, and facilitate data-driven decision-making in assessment. Beyond its applications, the symposium critically examines the policy and ethical dimensions associated with generative AI in higher education. Discussions will encompass the development of guidelines for a humanistic approach to integrating generative AI in healthcare education, research and delivery. Ethical considerations such as transparency, accountability, and bias mitigation pertaining to AI-generated materials and assessments will also be addressed. The symposium aims to foster an objective and informed dialogue that will contribute to the responsible, effective and ethical use of generative AI in health professions and sciences education. Participants will be invited to discuss the fundamental question, “Has generative AI given us new capabilities or taken ours away?” as we ponder this abstract written by ChatGPT.

ThatGPTeacher and Cerebral Classmate:

Chen Zhi Xiong, Singapore

In my talk, I will highlight features of NUS interim policy on generative AI in education through the lens of a fellow educator and student. I will share the philosophical underpinnings that guide our approach to generative AI in education and propose how learners should and should not interact with generative

AI, how they can prepare themselves, and how educators can respond. We will explore its relevance with worked examples in the context of healthcare delivery, education and research, its implications for providers, educators, and researchers, and how we can shift collectively from a defensive stance to a collaborative posture. Finally, we will recommend three positions on how humans can partner generative AI to steer humanity in the right direction.

Should Medical Schools Revise Learning Tools in the Generative AI Era? – Performance of ChatGPT in Physiology and Biochemistry Modified Essay Questions Extracted from Tutorials and Case-based Learning:

Nathasha Luke, Singapore

Advancements in generative AI have raised concern among educators regarding the need for revision of current learning tools. We evaluated the performance of ChatGPT in tutorial and case-based learning scenarios in Physiology and Biochemistry for medical undergraduates. Answers were generated for 44 modified essay questions (MEQs) in Physiology and 43 MEQs in Biochemistry. Each response was graded independently by two examiners.

The mean score for ChatGPT answers in Physiology was 74.7(SD 25.96). 16/44(36.3%) scored 90/100 marks or above. The mean scores between the higher-order and lower-order questions of Bloom's taxonomy demonstrated a statistically significant difference($p<0.05$) with better scores for lower-order questions. Most of the ChatGPT responses in Physiology were commended by the examiners as exemplary answers. Deficiencies were noted in the application of Physiological principles in the clinical context.

ChatGPT performance in Biochemistry MEQs was relatively lower, with a mean score of 59.3(SD 26.9), and only 7/43(16.27%) scoring 90 or above. There was no statistically significant difference in the scores for higher and lower-order questions of the Bloom's taxonomy. The examiners highlighted inaccuracies in applying and explaining fundamental concepts.

In conclusion, educators will have to revise certain learning tools to match the advancement of generative AI. In addition, the current non-domain specific generative AI technology has certain limitations in medical education, hence not suitable to be the sole learning resource for medical undergraduates, rather be an adjunct to existing resources. The differential performance across two subjects emphasizes the need to be aware of the discipline-specific limitations of generative AI technology. Innovative integration of this technology into current teaching tools will encourage students to harness the potential of this technology while being insightful of its limitations.

ChatGPT as a Tool to Promote Learning in an Undergraduate Scientific Inquiry Course:

Ivan Low Cherh Chiet, Singapore

The introduction of advanced AI tools like ChatGPT has brought about noticeable shift in the educational landscape. Educators have the opportunity to incorporate ChatGPT as an innovative teaching tool to provide students with more diverse and interesting learning experiences. Similarly, we incorporated ChatGPT in a scientific inquiry course in attempt to foster student learning and scientific inquiry skills. Typically, students were required to analyse journal articles and submit their critique as an assignment after each tutorial, but in one tutorial, they engaged in inquiry and debate based on ChatGPT's responses to course-related prompts. To assess the impact of ChatGPT-based

tutorials as compared with traditional tutorials, we scored all assignments using two sets of rubrics: one for assessing the achievement of learning outcomes (LO) at different level of Bloom's taxonomy, and another for evaluating scientific inquiry skills. One-way ANOVA was used to determine statistical significance of assignment scores from the tutorials. Assignments from a total of 40 students were analysed by two independent graders. Data revealed that the overall scores for each tutorial were comparable ($p=0.245$). Mean scores across the Bloom's taxonomy level (Understand, Analyse, and Evaluate) were also comparable across the different tutorials. Interestingly, we observed a trend suggesting that scientific inquiry skills were potentially enhanced in the ChatGPT-based tutorial ($p=0.083$). This study illustrates an innovative and meaningful use of AI technology, specifically ChatGPT, to support student learning in a scientific inquiry course. Our data revealed that tutorial classes leveraging on ChatGPT as a teaching tool was comparable to conventional case-based tutorials in promoting learning outcomes, with promise in improving scientific inquiry skills.

To Use or Not to Use, that is the Question! Introduction to AI in Education:

Peter G M de Jong, The Netherlands

Traditional Artificial Intelligence (AI) in general covers the use of computer systems and algorithms to perform tasks normally requiring some level of human intelligence. Generative AI specifically strives to create entirely new content and ideas including conversations, stories, images, videos, and music. There are several advantages and disadvantages of using AI and generative AI in education, and whether a medical educator or student should use or avoid it depends on various factors. This presentation will provide a short introduction to AI and its definitions. The presenter will discuss the different areas in which these technologies can be used in the educational context and will provide a short overview of opportunities and threats.

Symposium 14

Saturday 20th January 2024

9.00 am – 10.00 am

Cinema Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

Widening Access to Medicine in the Asia Pacific - A Regional Focus
Overview of Current Practices in Widening Access to Medical Education

Julie Willems, Australia

Widening Access to Medical Education: The Australia and New Zealand Context

Wendy Hu, Australia

Widening Access to Medical Education: The Sri Lankan Context

Gominda Ponnampereuma, Sri Lanka

Widening Access to Medical Education: The Indonesian Context

Diantha Soemantri, Indonesia

Symposium Description

This symposium is focused on the issue of widening access and participation to Medicine in the Asia Pacific. The panel will be provided with a series of provocations in which they will be asked to discuss the issue from the perspective of their geographical location (country or region), describing key initiatives being employed to widen access. The Symposium Panel members and Moderator bring to the session a wealth of experience in medicine, education, selection, and educational equity. There will be opportunities to identify commonality or differences of themes across the Asia Pacific around widening selection into medicine, and for identifying distinctive issues for future research in the Asia Pacific based in the discussions of the day.

Plenary 4

Saturday 20th January 2024

10.30 am – 11.00 am

Lotus Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

Knowledge, Skills and Attitudes: How Clinical Teaching May Evolve in the Era of Technology and AI

Subha Ramani, United States of America

In clinical education, learning outcomes are often categorised under cognitive (knowledge), psychomotor (skills), and affective (attitude) domains. The knowledge domain, once dominated by recall of facts, has gradually shifted towards higher cognitive outcomes on Bloom's taxonomy such as application, analysis, evaluation and creation. Core clinical skills including history taking, physical examination, clinical reasoning and procedural skills have moved away from meticulous data gathering alone to interpretation, incorporation of evidence and application to patient and population health. Over decades, clinical teachers were seen as founts of wisdom who provided knowledge, demonstrated skills and role-modelled attitudes, while learners were seen as apprentices and receivers of knowledge.

Explosion in clinical knowledge, complexities of modern-day patient care, need for efficient healthcare delivery and point of care learning along with rapid technological advances and a generation of learners who are digitally sophisticated have ushered in a new era of clinical training. This presentation will acknowledge the increasing relevance of incorporating technology for clinical teachers to tailor learning experiences to individual student needs, enhance application of knowledge and evidence to diagnostic and decision-making skills, and promote effective and efficient patient care. Finally, we will emphasise how the value of clinical teachers is increasingly relevant as role-models in skill domains such as communication skills, hypothesis-driven physical examination and clinical reasoning as well as attitudinal domains such as professionalism and humanism in educating healthcare professionals of the future.

Plenary 5

Saturday 20th January 2024

10.30 am – 11.00 am

Jasmine Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

Accreditation and Quality Assurance in Nursing Schools

Nell Ard, United States of America

Nursing educators want to ensure that the nursing program is providing quality nursing education that prepares the students for contemporary, evidence-based nursing practice specific to their country and the world. Obtaining accreditation for a nursing program contributes to the quality assurance within nursing programs. This session will provide the participate with information regarding the relationship between nursing accreditation and quality assurance for a nursing program. The session will provide information about the benefits of accreditation for the program, students, and faculty. The session will also provide an overview of the characteristics of a quality nursing program.

Plenary 6

Saturday 20th January 2024

10.30 am – 11.00 pm

Cinema Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

A Systems Approach to Assessment

John Norcini, United States of America

In educational settings, assessment is used in at least three different ways. It is the basis for making decisions, it signals what is valued, and it supports learning. Although not always acknowledged as such, the individual assessments that underpin the educational enterprise form a system. Explicit awareness of this fact offers the opportunity to optimize the assessment process, make it more efficient, and expand the potential solutions to problems. This talk will outline the roles assessment plays, identify the elements of a well-functioning system, and describe some of the tools available to support systems development.

Symposium 15

 Saturday 20th January 2024

11.00 am – 12.00 pm

Lotus Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

When Traditions Meet with AI in Medical Education

When Traditions Meet with AI in Medical Education

Jen-Hung Yang, Taiwan

Newly Defined Japanese National Core Competencies with a Rapidly Aging Population in an AI Era

Harumi Gomi, Japan

Integrating AI in Medical and Health Professions Education: Challenges for Students and Teachers in Culture with Uncertainty Avoidance

Ardi Findyartini, Indonesia

A Collaborative Approach to an International Advisory Committee on AI

Alexis L Rossi, United States of America

Symposium Description

The potential role of AI in medical and health professions education is inevitable and it will influence the role of teachers and students and their professional identities. Agile adaptabilities to these societal changes are the key to successfully supporting students in medical schools. It's timely to reflect on to what extent we can trust ourselves and our teachers and students in utilizing AI wisely, and how best we can use AI in medical and health professions education. Through the collective insights of speakers from diverse cultural backgrounds, participants will gain a multifaceted understanding of the advancements, methodologies, and implications of integrating AI in medical education, paving the way for global innovations and enhancements in medical teaching and learning. This symposium will highlight the use of AI in medical and health professions education from a different lens, using a cultural framework, to explore the necessary adaptations in the individual teacher and student, teacher-student interaction, curriculum, and faculty development.

Adaptations of Medical Education in Front of AI Digitalization Era

The symposium is a groundbreaking conference where medical academia and artificial intelligence (AI) intersect, weaving together the traditions adaptations, and innovations in 4 countries, which will serve as a platform for enriching conversations addressing the transformative impact of AI on medical education. This symposium brings together eminent speakers from Indonesia, Japan, Saudi Arabia, and Taiwan, each providing unique insights into how AI reshapes medical education in their respective nations. Our symposium aims to foster a dialogue exploring the synergies between traditional medical teaching methodologies and emerging AI technologies. We will explore the innovative integration of AI in conventional medical education, discuss the implications of e-professionalism, and the challenges and future directions of AI in medical training and practice. Through the collective insights of speakers from diverse cultural backgrounds, participants will gain a multifaceted understanding of the advancements, methodologies, and implications of integrating AI in medical education, paving the

way for global innovations and enhancements in medical teaching and learning. I will also briefly discuss the emerging trend of AI applications and integration in Medical Education in Taiwan.

Since AI is a global issue that spans our community, having a coordinated, consensus-oriented approach to responding to the many opportunities that AI offers is critical. The AAMC has partnered with NUS, AMEE, IAMSE and AAHCi to convene a global group of experts to support an integrated approach to leveraging AI for medical education. This presentation will provide a brief overview on the newly formed International Advisory Committee on AI.

Symposium 16
Saturday 20th January 2024
11.00 am – 12.00 pm
Jasmine Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka
Coaching And Mentoring, Preparing the Next Generation of Practitioners
Journey from a Clinical Teacher, Educator, Mentor to a Coach

Shirley Ooi, Singapore

Strategies for Implementing and Nurturing Faculty Through a Faculty Mentoring Programme

Lee Shuh Shing, Singapore

Impact of Coaching and Mentoring

Ashwini de Abrew, Sri Lanka

Symposium Description
Journey from a Clinical Teacher, Educator, Mentor to a Coach:

Shirley Ooi, Singapore

This talk aims to use the speaker's personal journey to illustrate the different roles of a clinical teacher, supervisor, educator, mentor and coach and how these can be combined to help a junior doctor in training. The varied roles in medical education will be shared by the speaker's own experiences. The speaker will also focus on what coaching is through her journey in being trained to be an International Coaching Federation-certified coach. An actual case example will be shared on how the different skills sets were combined to help a struggling junior doctor in training to illustrate the role of coaching in clinical training.

Strategies for Implementing and Nurturing Faculty Through a Faculty Mentoring Programme:

Lee Shuh Shing, Singapore

The transition as a health professional to educators requires faculty members to acquire new skills, adapt teaching and learning theories, and effectively leverage on different pedagogical approaches. Faculty development programs are essential in equipping educators with the necessary competencies to create engaging and effective learning experiences. Mentoring are pivotal in faculty development by providing personalized guidance, support, and feedback. It empowers faculty members to reflect on their teaching practices, refine instructional strategies, and navigate the complexities of learning environments. Implementing effective mentoring programs (with coaching) requires careful planning. Important characteristics of both the organisational context and the faculty who participate in mentoring affect the mentoring relationships and outcomes, mediating the ability of mentoring to produce the desired (and expected) benefits. Based on research and experience, this symposium will discuss on how to develop and sustain effective faculty mentoring programs.

Impact of Coaching and Mentoring

Ashwini de Abrew, Sri Lanka

Mentorship is a transformative process. Novices in the health profession are often guided by professors, clinical teachers as well as near peers in a nuanced journey of intellectual and personal growth. Measurement of the impact of mentorship extends beyond traditional metrics as involves the wholistic development of individuals, including the mentor. It is in essence a collaborative learning ecosystem. The enduring professional relationships formed and the perpetuation of a mentoring culture within the academic community further signify the lasting impact. Feedback from mentees, self-assessments, and peer support within mentoring programmes contribute to the holistic understanding of mentorship's influence. The conceptual exploration of mentorship in medical and health professions education dynamic interplay between mentor and mentee, and the transformation of educational roles in an environment of personal and professional growth.

Symposium 17

Saturday 20th January 2024

11.00 am – 12.00 pm

Cinema Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

21st Century Health Professions Education Curricular
AI for 21st Century Education

Roshan Ragel, Sri Lanka

Humanities in Health Professions Education

Zarrin Siddiqui, Viet Nam

Interprofessional Education

Paul J Gallagher, Singapore

Application in the South Asian Setting

Himanshu Pandya, India

Symposium Description

Focused on Southeast Asia, this symposium will introduce participants to educational innovations in this region.

- a. AI for 21st Century
- b. Humanities in HPE: An overview of how medical humanities is embedded in the MD curriculum longitudinally at one University in Viet Nam with learning experiences and student reflections.
- c. Interprofessional Education
- d. Application in the South Asian Setting: An overview of reforms in health professions education with application in South Asia setting

AI for 21st Century Education:

Roshan Ragel, Sri Lanka

In this insightful talk, Prof. Roshan Ragel will delve into the transformative role of Artificial Intelligence (AI) in reshaping 21st-century medical education. He will explore the paradigm shift towards personalized learning enabled by AI, highlighting how adaptive learning systems can cater to individual learning styles and needs. Prof. Ragel will discuss the integration of AI in Clinical Decision Support Systems (CDSS), emphasizing its potential to enhance diagnostic accuracy and treatment planning in medical training.

Furthermore, the presentation will address the advancements in simulation-based learning, showcasing how AI can create dynamic, interactive scenarios that mirror real-life medical challenges. Prof. Ragel will touch upon the crucial role of AI in medical research, aiding in discovering new treatments and medical knowledge.

Ethical considerations, a pivotal aspect of AI integration, will also focus on the importance of AI literacy and understanding its ethical implications in healthcare. The talk will conclude with an overview of future trends and challenges in AI in medical education, emphasizing the need for a balanced approach that harmonizes AI's potential with the core values of medical practice. Prof. Ragel's presentation offers a comprehensive view of AI's role in advancing medical education and practice, preparing future healthcare professionals for a technology-driven world.

Humanities in Health Professions Education:

Zarrin Seema Siddiqui, Viet Nam

There is great emphasis on teaching medical humanities to create health professionals who are empathic and can deliver compassionate care. Globally, medical schools have incorporated medical/health humanities as a standalone course. However, at one University, Medical Humanities is integrated across six years as a flagship and first ever program within the Professionalism theme.

In this presentation an overview of how medical humanities is embedded in the MD curriculum with sample learning experiences and student reflections will be presented.

Interprofessional Education:

Paul J Gallagher, Singapore

The Department of Pharmacy and Pharmaceutical Sciences, in collaboration with the Alice Lee Centre for Nursing Studies, Faculty of Dentistry, Saw Swee Hock School of Public Health, and Yong Loo Lin School of Medicine, has commenced in August 2023 a new interdisciplinary common curriculum at the National University of Singapore. This new Common Curriculum for Healthcare Professional Education (CCHPE) has been designed to ensure that the learning outcomes are aligned with the future vision of healthcare with focus on preventive healthcare and facilitating ageing in place through the use of technology and analytics. Eight hundred and forty-seven first-year students from Dentistry, Medicine, Nursing and Pharmacy will be taking five specially designed courses together, and they will collaborate across the four healthcare disciplines as part of their learning journey. The CCHPE, which is to be completed in the first two years of their candidature, will complement the existing curriculum of the respective degree programmes. This cross-disciplinary curriculum seeks to cultivate awareness of social issues, teamwork, communication, ethics and professionalism, digital literacy, and interprofessional education in the context of health and healthcare. In addition, the CCHPE aims to equip the students with collaborative skills to engage in population healthcare planning, delivery, and evaluation. Lessons are conducted through blended learning with a mix of online and in-person classes, which will be adapted to feature group as well as individual learning sessions such as case-based discussions, and self-reflections. Professor Paul Gallagher will explore the drivers for interprofessional education in Singapore and the wider region, the approaches NUS has adopted to reduce the barriers to the implementation of CCHPE across four major health professional programmes, and the opportunity and challenges in developing a research programme to measure the impact of the CCHPE.

Application in South Asian Setting:

Himanshu Pandya, India

Health Professionals have contributed significantly to health and socioeconomic development over the past century. However, we cannot bring about health reforms in the 21st century with outdated and deficient competencies of health professionals. The remarkable pace of global change is stretching the knowledge, skills and values of all health professions. The situation demands agile and rapid adaptation of core competencies by health professionals based on global, multi-professional and long-term perspectives to serve the emerging health care needs of individuals and populations.

Educational reform requires a change in mindset that accepts challenges and looks to address them. It demands leadership and requires change in perspectives, style of working, and harmonious relationships between all stakeholders. The relevant constituencies need to accept the imperative for reform through dialogue, open exchange, debate and discussions on the way forward.

The South Asia region has adapted and implemented various aspects of the 21st-century health professions education curriculum to meet the evolving healthcare needs of the population. The presentation will focus on some key elements and their application in the South Asian setting.

Symposium 18
Saturday 20th January 2024
1.30 pm – 2.30 pm
Lotus Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka
Clinical Ethics Teaching Capacity in The Digital Era in the Asian Pacific Region
Clinician as Ethicist: from Clinical Reasoning to Ethical Reasoning

Wai-Tat Wong, Hong Kong S.A.R.

Researcher as Instructor: from Decision-Making to Implementation

Olivia Ngan, Hong Kong S.A.R.

Ethicist as Advocate: Developing Clinical Ethics Capacity in the Asia-Pacific Region

Pacifico Eric Calderon, The Philippines

Symposium Description

The Asia-Pacific region is home to diverse cultures and practices, including those related to healthcare and ethics. While many countries in the region have made significant strides in developing their healthcare systems, ethical considerations in clinical practice have not always kept pace. The need for strong clinical ethics services has become increasingly apparent as healthcare workers in the region face complex and challenging ethical issues every day. In the post-pandemic digital era, clinical ethics can be taught in an interactive way to engage learners from different medical professions by incorporating e-learning strategies to conventional face-to-face teaching. In this symposium, members of the Asian Pacific Bioethics Education Network (APBEN) will illustrate an innovative strategy using debates on genuine ethical challenging situations produced by learners to the teaching of ethical reasoning, similar to the mindset of clinical reasoning. An ethically sound decision-making cannot benefit the patient without proper implementation, which usually requires communication skills in addition to clinical knowledge. An engaging teaching method can be widely adopted in educating healthcare professionals to build up the clinical ethics capacity, which should be developed hands in hands with advancing healthcare technology in the Asia Pacific region.

Clinician as Ethicist: From Clinical Reasoning to Ethical Reasoning:

Wai-Tat Wong, Hong Kong S.A.R.

The process of ethical decision-making can be divided into three stages: 1, ethical perception (identifying the ethical challenges), 2, ethical reasoning (analysing the challenge and deciding on the solution) and 3, ethical implementation (communicating the chosen solution to the stakeholders). Clinicians are usually familiar with clinical reasoning based on the updated clinical evidence from the medical literature and available clinical features from the clinical encounter with the patients. However, clinicians usually lack the knowledge and skills in ethical reasoning tools, including defining terms, distinguishing fact and value, applying the four principles or four quadrants approaches and utilising the thought experiment. A debate on the ethical challenging decision for a genuine patient is an excellent experiential learning for medical students or clinicians to apply the reasoning tools in different clinical contexts. The annotated video recordings in the e-learning platform depicting arguments from two opposite stances for a yes-or-no ethical challenging decision are valuable

teaching materials. We have adopted this strategy in clinical ethics teaching for our medical graduate, and the presentation will discuss our experience.

Researcher as Instructor: From Decision-Making to Implementation:

Olivia Ngan, Hong Kong S.A.R.

The implementation of ethical decision-making is usually a communication process between clinicians, patients, or their families. All the sophisticated ethical theories involved in the decision-making process should be transformed into layperson's language and conveyed to the patients and their families. The transformation is an excellent learning process to understand ethical principles in-depth. Besides the knowledge, implementing ethical decision-making also requires applying communication skills, including finding common ground, reframing and managing emotions by expressing empathy. We have requested the learners to produce a role play with video recordings of a conversation with the patients and families to implement a decision on ethical dilemmas. We will discuss the qualitative analysis of the recorded communication process and the effective way to utilise the recording communication process in clinical ethics training.

Symposium 19

Saturday 20th January 2024

1.30 pm – 2.30 pm

Jasmine Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

Artificial Intelligence in The Implementation of Universal Health Care and Health Professions Education in The Philippines
Scaling up of Centers for Health and Development Capacity in Operations Research and Implementation Research

Arlene Samaniego, The Philippines

Survey of Online Capabilities of Medical Schools in The Philippines

Melflor A Atienza, The Philippines

Development of Online Training for Advocates of the Protection of Women and Children Against Abuse

Melflor A Atienza, The Philippines

Symposium Description

The symposium features completed studies in health policy and systems research as well as operations research. The studies applied artificial intelligence in capacitating human resource for health through online training, using online modules that were developed to promote digital education and increase the capacity of the human resource for health workforce in conducting operations and implementation researches. The Philippine Universal Health Care Law mandates the Department of Health (DOH) to develop a cadre of health policy and systems researchers. Filipino human resource for health must be proficient in using the best evidence studies to guide them in rational decision making and efficient implementation of the Universal Health Care Law.

Scaling up of Centers for Health and Development Capacity in Operations Research and Implementation Research:

Arlene Samaniego, The Philippines

The Universal Health Care (UHC) Act was promulgated in the Philippines in February 2019. The Department of Health (DOH) had just started to implement it in a devolved health care system when the 2019 novel corona virus (COVID-19) pandemic struck. DOH addressed both situations despite the perennial lack of human resources for health (HRH).

The UHC Act specifically provided, that “the DOH shall strengthen its research capability by supporting health systems development and reform initiatives through policy and systems research, and shall support the growth of research consortia in line with the vision of the Philippine National Health Research System” (Congress of the Philippines, 2019). Towards this end, the DOH partnered with the National Teacher Training Center for the Health Professions (NTTCHP), University of the Philippines Manila and Vital Strategies, a Bloomberg Philanthropies organization. The project aimed to capacitate

Centers for Health Development (CHDs) in health policy and systems research (HPSR), specifically in Operations Research (OR) and Implementation Research (IR).

A total of 10 faculty members and researchers from the university and 12 from CHDs completed a one-month online training in mentoring program and basic research methods in OR and IR. The 10 pairs mentored online from 2-3 HRH from the CHDs of selected UHC Integration Sites from across the archipelago. All the 10 groups developed their respective research proposals consistent with DOH's Medium Term Research Agenda; they were approved by the DOH Single Joint Research Ethics Board. By the end of April 2023, 9 were completed and presented during the data-to-policy forum of the CHDs. The course site at <https://nttchp-oc.upm.edu.ph/course/view.php?id=23> remains active for migration to the DOH e-learning academy this year.

Development of Online Training for Advocates of the Protection of Women and Children Against Abuse:

Melflor A Atienza, The Philippines

The speaker will discuss the project of the Child Protection Network (CPN) Foundation, Inc. which is committed to building a critical mass of child and women advocates. With COVID-19 pandemic, CPN programs were converted into online training. The objective of the study is to develop online training programs for the protection of women and children against abuse and describe the trainees' experiences and performance. Online training programmes developed were the Recognizing, Reporting, Recording, and Referral (4Rs) of Women and Children Abuse, Multidisciplinary Team Training (MDT), and the Women and Children Protection Specialty Training (WCPST). Participants from Women and Children Protection Units. Their performance and feedback were derived from the course site. Data were analyzed using frequency counts, descriptive statistics, and recurring themes. The three online training programs were developed at the UP Manila Learning Management System at <https://wcpol.upm.edu.ph>. The site now has 2,650 enrollees in the 4Rs and have produced 1,067 graduates. The detailed findings of the programme will be discussed during the symposium.

Symposium 20

Saturday 20th January 2024

1.30 pm – 2.30 pm

Cinema Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

Impact Of AI on Continuing Professional Development

Global Standards in CPD Accreditation

Graham McMahon, United States of America

Implementing CPD in Resource Constrained Settings

Indika Karunathilake, Sri Lanka

CPD in the Continuum of Medical Education

Dujeepa D Samarasekera, Singapore

Symposium Description

Continuous Professional Development (CPD) is a professional obligation of all medical and health care practitioners. Practice of Medicine and its underlying knowledge are changing considerably with the rapid pace of technological development. In addition, patients and public expectations of professionals are rising.

Based on recommendations of the WHO, CPD should include a wide range of competencies such as clinical updates, research and scientific writing, ethical practice, communication, management and behavioral skills, team building, information technology, audit, and appropriate attitudinal change to ensure improved patient outcomes and satisfaction. There are many similarities between these and CPD competencies followed by different countries and various professional organizations.

Designing and developing a widely accepted national frameworks for CPD that is relevant to the local healthcare context and recent developments such as the new normal situation is vital. The main components of such framework; CPD competencies, CPD Point scheme, Assessment strategy, Mentoring system, CPD providers, CPD Certificate and the Accreditation system. This symposium will be a catalyst in establishing national CPD systems in the Asia Pacific.

Closing Keynote Address

Saturday 20th January 2024

2.30 pm – 3.00 pm

Lotus Hall, Bandaranaike Memorial International Conference Hall (BMICH), Colombo, Sri Lanka

Authentic and Inclusive Leadership: Navigating Uncertain Times

Yvonne Steinert, Canada

The importance of authentic and inclusive leadership in medical and health sciences education has been highlighted by many researchers. Effective leadership is essential to any organization's success, and it becomes even more significant during times of uncertainty and change. Some have said that leadership and uncertainty go together, and that "without times of uncertainty, there would be no need for leadership." It has also been said that leadership during uncertain times is a delicate balance, requiring a deft hand, clear mind, and strong will, as well as authenticity and inclusiveness. During this session, we will explore differing definitions and attributes of leadership, the role of leadership in managing change and uncertainty, and ways to promote authentic and inclusive leadership in ourselves and others, including our colleagues and students at all levels of the educational continuum. Using several case examples, we will explore how leaders can adapt to changing circumstances, provide vision and direction in times of uncertainty, and anticipate future challenges. We will also have an opportunity to reflect upon opportunities and challenges in being – and becoming – authentic and inclusive leaders.

W301

Sunday 21st January 2024

9.00 am – 1.00 pm

Skill Lab, Faculty of Medicine, University of Jaffna, Jaffna, Sri Lanka

Gamification of Medical Simulation Workshop

Rajan Kailainathan (Australia), Srigala Nagarajan (Australia)

Workshop Description

The Gamification of Medical Simulation workshop is an indispensable resource for clinicians seeking to revolutionize their approach to simulation-based education. This comprehensive guide is meticulously crafted to navigate the intricate realm of scenario design, a pivotal element in medical simulation that elevates learning experiences to unprecedented heights.

Simulation, an influential pedagogical tool, finds its zenith in scenario design. This course presents an in-depth exploration of crafting robust scenarios finely tuned to precise learning objectives. The workshop empowers participants with the prowess to construct scenarios that resonate with authenticity, mirroring the complexities of real-world clinical encounters. Aspiring to bridge the chasm between theoretical knowledge and clinical application, the course delves into techniques that yield meaningful and valid outcomes for learners and instructors alike.

Workshop Objectives

This workshop delves into medical simulation's core aspects with an added twist of gamification. Participants learn to craft scenarios aligned with learning goals, balancing technical and non-technical skills. Design choices are explored, adapting scenarios to diverse contexts and using actual cases ethically. Time manipulation and inter-professional scenarios enhance learning, addressing individual needs. Resourceful simulation design is emphasized while debriefing and assessment's role is recognized for comprehensive educational impact. By infusing gamification elements, the workshop creates engaging scenarios that boost motivation and interactivity, fostering an innovative approach to medical education.

Who Should Attend

The Gamification of Medical Simulation course is tailored for a diverse spectrum of healthcare professionals dedicated to advancing their educational practices. Clinicians, educators, simulation specialists, and medical trainers seeking to amplify the effectiveness of their simulation-based training will find immense value. Physicians, nurses, allied health professionals, and researchers aspiring to bridge the gap between theory and practice can benefit from mastering scenario design, inter-professional collaboration, and debriefing techniques. Whether novices or experienced practitioners, attendees aiming to elevate patient care through immersive and authentic learning experiences will find this course an invaluable resource for cultivating excellence in healthcare education.

W302

Sunday 21st January 2024

9.00 am – 1.00 pm

Board Room, Faculty of Medicine, University of Peradeniya, Kandy, Sri Lanka

Teaching, Learning, Assessing and Enhancing Performance with Generative AI

Nathasha Luke (Singapore), Thilanka Seneviratne (Sri Lanka), Chen Zhi Xiong (Singapore)

Workshop Description

The use of generative Artificial Intelligence (AI) in education is becoming more prevalent by the day. With generative AI technologies, it is possible to create new content and generate novel ideas based on existing information. These include conversations, stories, images, videos, and music. Clearly, there are many advantages and disadvantages on using such technologies. In this workshop, we will explore how generative AI can be harnessed in a useful way to teach, learn, assess and enhance performance in health professions education.

The hands-on workshop will start with an introduction to generative AI technologies based on large language models (LLMs). We will present practical capabilities and highlight limitations of these technologies. We will demonstrate worked examples of tutorial, case-based learning and assessment in medical sciences for medical undergraduates. By working on carefully crafted clinical cases and teaching-learning scenarios, participants will better understand how these tools can enhance the teaching and learning experience of our faculty and students as well as improve learners' clinical reasoning approaches.

Workshop Objectives

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

- Understand the benefits and pitfalls of using generative AI tools in education.
- Design education activities that optimize benefits of using such tools.
- Understand how to use such tools to enhance clinical reasoning skills.
- Modify education activities to prevent or mitigate pitfalls.

Who Should Attend

The workshop will be of interest to all health profession educators who want to learn more about generative AI tools and how to use them purposefully in their education activities. Student attendees may also be keen to learn how such tools can be useful for self-directed learning and their limitations. Last but not least, education leaders and administrators may be interested to learn what these tools can and cannot do as well as should and should not do, in order to develop policies governing their use and implementation in the curriculum.

W303

Sunday 21st January 2024

9.00 am – 1.00 pm

Board Room, Faculty of Medicine, University of Kelaniya, Kelaniya, Sri Lanka

Designing and Applying Effective Questionnaires

Marcus Henning (New Zealand), Mataroria Lyndon (New Zealand)

Workshop Description

This workshop aims to cover the key components of questionnaire design and development followed by research application. It is ideal for individuals who aim to use, or are designing, questionnaires for their research or practice. The workshop follows a step-by-step process and involves some discussion around the application of psychometric statistical methods.

Workshop Objectives

At the end of the course the participants will be able to:

- Explain the processes involved in designing questionnaires, including reliability and validity issues
- Create and implement an effective questionnaire
- Demonstrate basic skills using Google forms
- Understand how to perform fundamental psychometric analysis
- Apply questionnaires to research problems

Who Should Attend

- Scholars who are interested in questionnaire or survey based research
- Scholars who are interested in gaining knowledge about effective data collection through surveys by designing a good questionnaire

Monday 15th January 2024

9.00 am – 10.30 am

Virtual Room 1

Free Communication Session 1 – Teaching, Learning and Simulation

Pilot Randomised Controlled Trial of Virtual Patient Simulation Versus In-Person Simulation for Sepsis and Trauma Resuscitation Skills Training in Novices

Matthew Low, Singapore

Simulation Technology in Cardiopulmonary Resuscitation with Partial-Task Trainer: A Pilot Study for Second-Year Medical Students

Ngoc Loi Ho, Viet Nam

Case Study on Simulation-Based Training in Behavioural Skills Within a Simulated Surgical Theatre for Medical Undergraduates of Faculty of Medicine (FoM), University of Moratuwa (UoM), Sri Lanka

Nadeeja Samarasekara, Sri Lanka

High Fidelity-Low Technology Simulation for Teaching Crime Scene Investigation to Medical Undergraduates – A Pilot Study

Yalini Thivaharan, Sri Lanka

Artificial Intelligence in Undergraduate Medical Education: A Scoping Review

Chandana Atapattu, Sri Lanka

Telepractice Based Teleclinical Supervision; Perceptions and Experiences of Speech and Language Therapy Undergraduate Students

Dinushee A Bakmeewewa, Sri Lanka

Co-Creation of Learning Materials by the Students at International Medical University

Nilesh Kumar Mitra, Malaysia

Pilot Randomised Controlled Trial of Virtual Patient Simulation Versus In-Person Simulation for Sepsis and Trauma Resuscitation Skills Training in Novices

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Department of Emergency Medicine, Yong Loo Lin School of Medicine, National University Health System, Singapore

Keywords

Simulation, Randomised trial, Virtual patient

Introduction

Virtual Patient Simulation (VPS) is effective for learning a variety of health professions skills. It is uncertain whether this effectiveness extends to sepsis and trauma resuscitation, which integrate skills across domains, are more complex than most target skills in existing VPS literature, and are often learnt through In Person Simulation (IPS).

Listing for Free Communication Sessions

Cognitive load theory predicts that lower intrinsic load from VPS, which has lower complexity than IPS, would be advantageous for novices. Conversely, cognitively focused VPS design may impede learning due to limitations in practicing psychomotor skills and skills integration.

We conducted a pilot randomised controlled trial to compare cognitive, non-cognitive, and overall learning outcomes for sepsis and trauma resuscitation skills in novices with VPS focused on cognitive skills versus IPS.

Method

Emergency department junior doctors were randomly allocated to 70 minutes of VPS (n=19) or IPS (n=21) training in sepsis and trauma resuscitation.

Using the Nominal Group Technique, we developed scenario-specific skills assessment checklists, and determined Bloom's taxonomy domains (cognitive, psychomotor, and affective) engaged in each checklist item via consensus.

Two blinded raters observed and rated participants leading one sepsis and one trauma resuscitation simulation with a high-fidelity manikin, aided by blinded standardised assistants. Mean overall checklist scores, and checklist scores grouped by domains involved, were compared between VPS and IPS groups.

Satisfaction was assessed with the Student Satisfaction with Learning Scale (SSLS). VPS time-on-task was determined from simulator records.

Results

For sepsis, mean overall checklist scores (maximum 62 points) with VPS (38.0, SD 4.4) and IPS (36.0, SD 6.1) were not significantly different (2.0, 95% CI: -1.4 to 5.4, Cohen's d 0.38). There was no significant difference in mean checklist scores between VPS and IPS for items that were only cognitive (1.1, 95% CI: -1.5 to 3.7) and not only cognitive (0.9, 95% CI: -0.4 to 2.2).

For trauma, mean overall checklist scores (maximum 62 points) for VPS (36.2, SD 5.7) and IPS (37.2, SD 4.2) were not significantly different (-0.93, 95% CI: -4.1 to 2.3, Cohen's d 0.19). There was no significant difference in mean checklist scores between VPS and IPS for items that were only cognitive (-0.34, 95% CI: -2.8 to 2.1) and not only cognitive (-0.59, 95% CI: -2.4 to 1.3).

Median SSLS scores were significantly lower (-3.0, 95% CI: -1.0 to -5.0) with VPS (20.0, IQR 17.5-21.5) than IPS (23.0, IQR 22.0-25.0). Median VPS time-on-task was only 45 minutes (IQR 36 to 48) out of 70 minutes allotted.

Conclusion

For novices, there were no large differences in sepsis and trauma resuscitation skills learning outcomes with cognitively focused VPS compared to IPS. Learning outcomes for tasks involving non-cognitive domains are similar and not a key factor attenuating predicted gains with VPS. Reduced time-on-task desired by participants is a more likely attenuating factor, but also suggests potential efficiency gains.

Simulation Technology in Cardiopulmonary Resuscitation with Partial-Task Trainer: A Pilot Study for Second-Year Medical Students

Ho NL, Nguyen DT

Center for Advanced Training in Clinical Simulation, School of Medicine, University of Medicine and Pharmacy at Ho Chi Minh City, Viet Nam

Keywords

CPR manikin, Partial-task trainer, Training, Medical student, Satisfied, Simulation

Introduction

The use of technology in teaching and evaluation in clinical simulation environments is currently a trend and has achieved effectiveness. A recently published systematic review found that students were more motivated to use computer-controlled models and that both models achieved the expected learning outcomes. At the same time, feedback from the continuous results of the model also helps students with better results.

Method

A cross-sectional study was conducted on 122 second-year medical students of the School of Medicine, University of Medicine and Pharmacy at Ho Chi Minh City in December 2022. The students participated in a self-study session with a technical orientation. Basic cardiopulmonary resuscitation skills with a half-body training model. The model has been improved by the Center for Advanced Training in Clinical Simulation (ATCS) with additional sensors to evaluate the pressing position, pressing depth and determine the pressing frequency of the student and connect to the computer system. so that the results respond over time and force as well as after a sequence of skill execution.

After completing the test, students will receive feedback on the results through the computer system screen. Survey questions were sent after this session through the Google Forms system.

Results

Nearly 90% of students were satisfied with the cardiopulmonary resuscitation model used in the self-directed study session with the criteria of chest compression position, appropriate compression force, possible placement of respiratory support devices, and neck support. You can lift your chin or tilt your head back. More than 86% of students were satisfied with the results from the model's software when returning results on chest compression speed and more than 90% on required chest compression depth. More than 90% of students felt more confident after the self-study session and wanted to have more opportunities to continue studying to improve their capacity on this model.

Students participating in guided self-directed learning sessions with this model have a statistically significant higher average score of skills at the end of the course compared to other students in the same course.

Conclusion

The study showed that students were satisfied with training in cardiopulmonary resuscitation skills through a half-body model and accepted the assessment results for automatic feedback provided by the sensor system linked to the model's display screen as many previous studies around the world have noted.

The initial application brings positive results on student capacity outcomes. Therefore, it is necessary to further improve the half-body model in training cardiopulmonary resuscitation skills and conduct more evaluations in other subjects to confirm the effectiveness that the technology applied in this model brings.

Case Study on Simulation-Based Training in Behavioural Skills Within a Simulated Surgical Theatre for Medical Undergraduates of Faculty of Medicine (FoM), University of Moratuwa (UoM), Sri Lanka

Samarasekara N

Department of Surgery and Anaesthesia, Faculty of Medicine, University of Moratuwa, Sri Lanka

Keywords

Behavioural skills, Surgical theatre, Simulation, Clinical orientation, Medical undergraduates, Sri Lanka

Introduction

The transition from didactic learning to clinical practice is a pivotal phase in medical education. Ensuring that, medical students are not only proficient in medical procedures but also exhibit appropriate behavioral skills within the surgical theatre is essential. This article presents an approach to clinical orientation by incorporating simulation-based training in the context of behavioral competence within a simulated surgical theatre.

The clinical orientation program of the Faculty of Medicine, University of Moratuwa is designed to prepare medical students for the complexities and demands of a real surgical environment before starting their hospital based clinical training. Behavioral skills, including communication, teamwork, and professionalism, are often overlooked but are equally essential for safe and effective patient care. Simulation-based training offers a controlled and immersive platform for students to hone these skills without patient risk.

Method

The simulated surgical theatre was replicated with the intricacies of a real operating room, complete with scrubbing area, gowning and gloving area, lifelike patient manikin, theatre table, surgical instruments with sterile trolleys, anaesthetist's area with machine. A simulated interprofessional healthcare team was created with surgeon, scrubbed nurse, running nurse and anaesthetist. Through a structured instructions, students participated in scenarios that mimic surgical procedures in groups. Every student was given the opportunity to do the surgical scrubbing, gowning and gloving under observation. Students were exposed to the operating suite and one of the student could assist the surgeon, while navigating the challenges of moving with in the theatre suite, effective communication and teamwork. Instructors are trained to provide constructive feedback and assess students' behavioral competencies during these simulations. A key aspect is the emphasis on interpersonal skills, fostering effective communication between team members, addressing conflicts, and maintaining professionalism under pressure. The incorporation of role-playing further enhances the realism of these scenarios.

Results

Feedback from participants is collected and analyzed. Majority of the students (84%) have given positive feedback on the simulation session. Student's feedback and comments continuously refine the program and ensure that it remains aligned with the evolving demands of the healthcare environment. The training program ultimately contributes to the development of well-rounded, empathetic, and competent medical professionals.

Conclusion

In conclusion, simulation-based training in behavioral skills within a simulated surgical theatre during clinical orientation empowers medical students with a comprehensive set of competencies essential for their future roles as trainees in the real theatre environment. By instilling effective communication, teamwork, and professionalism within the surgical context, this innovative approach enhances patient safety, fosters inter-professional collaboration, and prepares medical students for the challenges of clinical practice. As the healthcare landscape continues to evolve, this training methodology ensure medical graduates not only practitioners but also exemplary communicators and team players, ultimately benefiting patient care and the medical profession as a whole.

High Fidelity-Low Technology Simulation for Teaching Crime Scene Investigation to Medical Undergraduates – A Pilot Study

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Keywords

Simulation based medical education , Forensic medicine, Low technology

Introduction

Crime scene investigation (CSI) is an essential curricular component in forensic medicine for medical undergraduates. In the Sri Lankan context, a medical officer may have to serve as a first responder in the country's periphery, and conduct a CSI without a forensic specialist. Practical training in CSI is challenging as the opportunities may not occur in a predictable or uniform manner. The crime scene is an imperfect learning environment due to possible contamination, loss of trace evidence and concerns regarding student safety. Teaching CSI often involves virtual reality (VR) technology which are of high cost. We aimed to create a high fidelity-low technology simulated crime scene to teach medical undergraduates.

Method

A crime scene was created in the simulation laboratory using readily available resources. The scene depicted a house fire where the partially burnt body of a woman was found. Household and personal items, blood spatter, kerosene, foot prints etc. were strategically placed and the scene was cordoned off. Following a short lecture on the basics of CSI, 10 students investigated the crime scene in groups of 3-4. They were required to conduct the CSI, record, collect evidence, interpret findings, and reconstruct the possible scenario. The activity was facilitated by a specialist in Forensic Medicine and observed by 3 other academics.

Results

Feedback was obtained through Google Forms, Student feedback was overwhelmingly positive, with 80% strongly agreeing that objectives were clear, pre-activity briefing gave adequate details, and post-activity discussions helped them formulate an opinion. While 50% strongly agreed that the activity helped learn the steps of CSI, only 40% strongly agreed that they received adequate feedback. All (100%) strongly agreed that they would recommend this activity to others. Open-ended feedback revealed that students required more time for the CSI and repeated activities in the scene to improve performance. The facilitator and observers (n=5) strongly agreed that the students showed interest in the activity. However, they noted that not all CSI steps were followed, and that while students were able to reconstruct the event, they showed difficulty in justifying their opinion.

Conclusion

This high fidelity-low technology simulated crime scene is an innovative method to teach CSI to medical undergraduates, particularly in settings with limited access to high technology resources. This simulated crime scene could be used to train magistrates/lawyers, scene of crime officers/ police officers, forensic scientists and postgraduate students regarding CSI.

Artificial Intelligence in Undergraduate Medical Education: A Scoping Review

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Keywords

Artificial intelligence, Undergraduate medical education, Medical curriculum, Digital technology

Introduction

Pedagogical shifts in medical education due to advancements in digital technology are inevitable. Artificial intelligence (AI), which is the simulation of human intelligence by software-coded heuristics, is the latest technological development making a major impact on global healthcare. Therefore, there is an urgent need to understand the importance of AI, in the context of medical education and its subsequent applications. The aim of this review was to describe the use of artificial intelligence in undergraduate medical education.

Method

The search was conducted using electronic databases including PubMed, ERIC and Web of Science using the keywords “artificial intelligence” and “undergraduate medical education”. Arksey and O'Malley framework was applied to undertake this review and only English papers were included from 1995 to 2023.

Results

Two hundred and three records were identified through database searching and 154 records were identified for screening. Out of 44 full-text articles selected for eligibility assessment, 12 full-text articles were included in this review. These included 5 literature reviews, 5 multi-center studies and 2 single-center reports. These recognized a need for introducing AI to the medical curriculum. Students were more interested in AI in patient care training while faculty were more interested in AI in teaching. The majority of students stressed the need for a holistic core curriculum that offer a basic understanding of the technical aspects of AI and their corresponding clinical applications.

Conclusion

Medical educators should consider the inclusion of AI into undergraduate medical education in the future according to necessities in transforming healthcare driven by AI. The update should revolve around equipping future physicians with the knowledge and skills to use AI applications effectively and ensure that professional values and rights are protected.

Far from replacing doctors, students or medical educators, AI will open new horizons. In this context, new roles for health professionals will emerge, many roles yet unforeseen, roles requiring new medical education. Future physicians will be able to use high technology for individualized learning, social interactions, and access to information.

Telepractice Based Teleclinical Supervision; Perceptions and Experiences of Speech and Language Therapy Undergraduate Students

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Keywords

Telepractice, Telesupervision, Clinical training, Speech and language therapy

Introduction

The 2020 COVID pandemic forced all health operations to fully move on to an online platform. Telepractice has been endorsed as a successful model of service delivery in Speech and Language Therapy (SLT), although it may not be appropriate for all populations or effective without specific modifications (American Speech-Language-Hearing Association. n.d.). Consequent to the transformation in healthcare delivery, the traditional face-to-face clinical supervision model in health education was replaced with a novel format known as tele-clinical supervision or e-supervision. Here, virtual student-patient interactions were supervised from a distant site via video conferencing or mobile technologies. Tele-practice-based e-supervision necessitated that clinical teachers and students adapt to a learning culture and a technological shift alike. Most virtual clinical training program reviews reported in the literature are based on the perspectives and experiences of the supervisor, although supervisee feedback provides a critical understanding of the learning experience (Ducat & Kumar, 2015; Manosevitz, 2006).

Method

128 SLT undergraduate students in the 2nd, 3rd and final year who had been offered a telehealth-based clinical training module during the lockdown participated in the study. The study tool was a novel questionnaire developed based on the Clinical Learning Environment, Supervision and Nurse Teacher Evaluation Scale (CLES + T; Mikkonen et al., 2017) and the Nursing Clinical Facilitator Questionnaire (NCFQ; Centre for Learning and Teaching at the University of Technology of Sydney). Participants responded to 23 attributes across three primary subsections: pedagogical/learning environment (LE), supervisory relationship (SA) and telehealth teaching practices (TTP). Each attribute was marked on a 5-point scale for (a) its perceived importance and (b) experience in the telehealth-based clinical program. Subsection and total scores were computed for only the experience ratings. 10% of the sample was purposively selected and interviewed in a focus group to extract qualitative data, then thematically analysed (Braun and Clarke, 2006).

Results

Findings showed that attributes perceived as important in a virtual clinical training program were not always well experienced in the delivered telehealth-based SLT clinical training program. Percentage mean experience scores for LE (Mean=64.95; SD=20.83), SA (Mean=68.33; SD=20.59) and TTP (Mean=65.21; SD=21.66) when compared were significant at $p < 0.05$ level. Dunn-Bonferroni post hoc tests showed significance at $p < 0.05$ level for only LE and SA. Positive and highly significant correlations were shown between the subsection experience scores and between all three subsections and the total experience score ($p < .001$). Specific attributes that strongly influenced the LE, SA and TTP experience scores were identified using a factor analysis. The qualitative analysis yielded notable suggestions for improving an SLT online clinical training program.

Conclusion

The overall student experience in a first-time delivery of a virtual SLT clinical training program was positive. Factors identified as important by students yet inadequately experienced within this program can be comprehensively considered when designing future virtual clinical training modules. Findings implicate that developing tele-practise-based clinical training programs requires an all-inclusive and synchronous consideration of the pedagogical environment, supervisor relationship and virtual teaching practice attributes for better student learning.

Co-Creation of Learning Materials by the Students at International Medical University

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Keywords

Cocreation by students, Learning material, Medical curriculum

Introduction

Co-creating learning materials with students enhances teaching and learning by valuing the learner's perspective. Collaborative curricula can enhance learner perceptions, and attendance by involving them in the design process, in contrast to dictated curricula that exclude learners from the design process. Self-determination theory of co-creation involves competence, autonomy, and teacher-student relationships. This attempt at co-creation included students who had just finished the pre-clinical phase of the curriculum and were willing to co-create cardiovascular anatomy content.

Method

While designing a new medical curriculum based on the key clinical problem, the educators of International Medical University faced the challenge of reduced learner time in lectures in the anatomy component of the curriculum. A participatory design was used with alignment between the level of student involvement and the purpose of the approach. Allowing the senior students to help in the construction and design of the contents in Moodle during 2018 helped to improve the delivery of the curriculum during 2021. Outcomes were identified, contents were chunked into chapters, scripts were developed to record videos, trial modifications were discussed, and the recording of videos was done using the heart models. Knowledge check quizzes and case studies were added.

Results

A post-construction survey conducted among 20 pre-clinical and 20 semester 10 students showed that 60% of students agreed and 20% of students strongly agreed that the videos constructed were helpful in understanding the structural details of the heart. There is a difference in the number of viewers between easy and difficult contents, with the internal structure of the chambers of the heart being viewed 20K to 30K times. 90% of students agreed that the integration of clinical scenarios helped their understanding of the module contents.

Conclusion

Successful co-creation of content by senior students can help in the implementation of self-directed learning in subsequent cohorts.

Listing for Free Communication Sessions

Monday 15th January 2024

9.00 am – 10.30 am

Virtual Room 3

Free Communication Session 2 (Young Scholar) – Innovative Practices and Simulation

Sight Sense – A Multilayered Vision Testing Web Application

Harish Balakrishnar, Sri Lanka

Student Engagement Workshop: A Student-Led Initiative to Ignite Passion and Drive in Medical Education

Thapthai Laungsuwan, Thailand

Barriers To Simulation-Based Learning in Undergraduate Medical Education in Sri Lanka

Kaumudee Kodikara, Sri Lanka

Cross-Territory Virtual Bedside with Generative-AI Chatbot

Serene Goh Si Ning Goh, Hong Kong S.A.R.

Exploring The Efficacy of Two Prominent Artificial Intelligence-Powered Tools as Supplementary Resources for Enhancing the Teaching, Learning, And Assessment of Human Anatomy in Medical Education

Amila Wickramarathna, Sri Lanka

Kidnify – Elevating Chronic Kidney Disease Management with Machine Learning and IOT Through a Mobile Application

Kavindu Marasinghe, Sri Lanka

Sight Sense – A Multilayered Vision Testing Web Application

Balakrishnar H, Kumbukgolla KGIHC, Perera KPRT, Dissanayake DMPD, De Silva DI, WA Pabasara C
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Keywords

Vision health, AI-driven, User-friendly, Early intervention, Disease prediction, User engagement, Image quality assurance, Reliable diagnosis

Introduction

In the twenty-first century, vision health is in a critical stage, with a projection to impact 895 million individuals by 2050, according to the World Health Organization. This research introduces a web-based diagnostic platform using AI tools for assessments of visual acuity, color vision, astigmatism, uveitis, and cataract. AI enhances ocular disease diagnosis, especially in resource-limited regions, improving image quality, providing personalized guidance, and detecting diseases. The Digital Vision Testing and Diagnosis Platform aims to improve access to reliable vision assessments, supporting global eye care and aligning with the aim of enhancing current medical procedures.

Method

The methodology of the Platform employs a structured approach to address identified barriers:

- **Data Collection:** Two datasets were acquired: one containing high-quality eye images with cataracts and uveitis, and another displaying common macro photography errors.
- **AI Model Training:** Utilizing Azure Cognitive Services Custom Vision Service, two models were created. The first assessed image quality by considering resolution, blur, and lighting conditions. The second specialized in detecting severe cataracts or uveitis using a diverse dataset.

Testing Procedure:

- **Basic Testing:** Swift tests for visual acuity, color vision, and astigmatism were conducted with Snellen optotypes, hybrid images, and Ishihara plates, each taking under two minutes.
- **Advanced Testing:** Users with potential vision issues transitioned to AI-driven assessments, integrating the Azure Custom Vision prediction API. This enhances diagnostic accuracy for eye diseases.

This comprehensive approach aims to foster user engagement, facilitate informed decision-making, and ultimately advance vision care.

Results

The utilization of Azure prediction API models has yielded promising outcomes in vision health diagnostics, as demonstrated by key statistical findings:

- **Image Quality Prediction:** The models exhibit a remarkable ability to assess image quality, achieving acceptance rates ranging from 85.2% to an impressive 95.8%. This high acceptance rate underscores their proficiency in recognizing images suitable for reliable analysis.
- **Disease Prediction:** Disease prediction by the second model demonstrates noteworthy accuracy, with probabilities reaching 97.3% for uveitis and 89.5% for cataract. These probabilities reflect the models' capacity for precise disease predictions based on quality-assured images.
- **Two-Step Process:** The models employ a structured, two-step advanced testing process. Initially, they validate image quality, ensuring alignment with recommended standards for dependable disease prediction. Approved images then proceed to the diagnosis step.

In addition, the platform offers user-guided image enhancement to address quality concerns. This crucial step empowers users to capture high-quality images, essential for achieving accurate disease predictions.

Conclusion

In conclusion, the proposed Digital Testing procedure is a pivotal advancement in global eye health, overcoming barriers through streamlined processes and Azure Custom Vision integration. The high accuracy in disease prediction has profound implications for health profession education. Healthcare professionals can integrate AI-driven tools into their curriculum, fostering collaboration with AI specialists. Training modules focusing on real-time data interpretation prepare professionals for efficient vision issue management.

These findings not only revolutionize clinical practices but also shape the education of future eye care professionals, emphasizing the crucial role of AI in advancing diagnostic capabilities and global eye health.

Student Engagement Workshop: A Student-Led Initiative to Ignite Passion and Drive in Medical Education

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Keywords

Student engagement, student engagement workshop, student-led initiative, student union, curriculum evaluation, curriculum development, knowledge dissemination, active participation, collaboration, sustainability

Introduction

Medical students play a pivotal role in curriculum evaluation at the Faculty of Medicine, Chulalongkorn University, renowned for its ASPIRE-to-Excellence award in student engagement. Annually, the Student Union organizes a 'Student Engagement Workshop' that fosters student participation in medical education, encouraging newcomers to join the core team. This team consists of student representatives who provide insights on the curriculum. Our study aims to share valuable experiences in establishing a student engagement core team through a workshop tailored for incoming medical students.

Method

The comprehensive one-day workshop process was scrutinized. Before the workshop, participants completed self-reported questionnaires assessing various aspects, such as background knowledge about medical education. The workshop is run by the previous core team and its primary goal is to motivate students to proactively join the core team and empower them with valuable devotion. The workshop included five distinct sessions: 1) Reviewing the Concept of Student Engagement, 2) Fundamental Elements of Medical Education, 3) Basics of Questionnaire Design, 4) Data Analysis and Presentation, and 5) Applying Student Engagement Theory into Practice. Post-workshop, feedback was collected through similar questionnaires and an additional supplementary survey in order to enhance future workshops.

Results

Participants were medical students from 1st to 6th academic years. A positive attitude towards student engagement was prevalent, with participants showcasing strong fundamental knowledge about medical education, indicating promising prospects for increased engagement. Questionnaire design yielded productive results, attributed to the effective use of response methods, including scales, closed-ended, and open-ended formats. Younger participants actively contributed innovative perspectives, while soon-to-graduate senior students shared valuable insights and experiences. All medical students joined, in line with the motto: "Student engagement engages every student." Furthermore, factors related to the environment and workshop processes, such as location, duration, content, and delivery formats, garnered favourable feedback. This positive feedback suggested students' interests in medical education and student engagement as well as the importance of organising the workshop in the following academic year.

Conclusion

The student engagement workshop, a student-led initiative, effectively bridges the gap between senior and new students, fostering experience exchange. This integration empowers students to actively promote engagement within peer groups and recruits dedicated annual student engagement core teams, playing a pivotal role in collaborating with faculty for student representation in curriculum development. We advocated organising workshops to excel in knowledge dissemination and cultivate active participation and collaboration among students, faculty, and curriculum development—a success we're committed to building upon.

Barriers To Simulation-Based Learning in Undergraduate Medical Education in Sri Lanka

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Keywords

Medical student, Simulation, Learner perception

Introduction

The effectiveness of simulation-based medical education is well established. The literature describes a wide variety of educational interventions with various simulators and standardized patients that have been shown to contribute to upskilling medical students in many areas, including cognitive, affective, and psychomotor skills. However, integration of simulation into undergraduate medical curricula in Sri Lanka is lagging behind the rest of the world and the region. Little is known about the student perception of what barriers they face in engaging in simulation-based learning. This qualitative study aimed to explore what barriers medical students face in simulation-based learning interventions.

Method

Six focus group discussions were conducted among medical undergraduates at the Faculty of Medicine, University of Kelaniya, Sri Lanka, from July to October 2020. Ethical approval to conduct the study was obtained from the Ethics Review Committee, Faculty of Medicine, University of Kelaniya, Sri Lanka. A semi-structured interview guide was used, and the discussions were audio-taped, transcribed, and analyzed inductively using content analysis.

Results

A total of 52 students participated in focus group discussions. There were 18 third-year medical students, 17 fourth-year students, and 17 fifth-year students. Most were female (63%) and Sinhalese (77%). Two focus group discussions were held per student from each academic year. Three main categories emerged from the discussions: time factors, infrastructure factors, and curricular integration. Students felt that while simulation-based learning helped acquire skills, inadequate time allocated for these learning sessions was a major limiting factor: fewer teaching/learning sessions could not accommodate the assigned number of students, and students had to compete to get hands-on time. Students remarked on the inadequacy of infrastructure and equipment. The equipment needed for any particular teaching activity was lacking in quantity and quality. The students found that the task trainers and other simulators lacked a realistic nature, and thus, they could not fully immerse themselves in the learning activity. They viewed physical fidelity as an essential factor contributing to the authenticity of the teaching/learning experience imperative for meaningful learning. Students

were unsatisfied with the ad-hoc nature of simulation-based teaching/learning sessions and wished for more streamlined and systematized teaching. They emphasized the need to include simulation-based sessions in their main timetables, which would ensure adequate training time for all students. Students were explicitly enthusiastic about increasing simulation-based teaching sessions during the pre-clerkship period and felt the need to lessen with the start of the clerkships.

Conclusion

Medical students in Sri Lanka faced multiple barriers to learning during simulation-based teaching/learning interventions. While most of these barriers may be viewed as arising from resource limitations and are common to many resource-poor settings, the need to overcome challenges fundamental to meaningful learning is apparent. Simulation-based teaching/learning sessions need to be integrated into the curriculum, and logistical issues need to be well thought out before implementing this method of education. Moreover, educators must be creative to improve the psychological fidelity of simulation-based teaching interventions to improve learner engagement.

Cross-Territory Virtual Bedside with Generative-AI Chatbot

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Keywords

AI chatbot, Virtual bedside tutorial, Generative Artificial Intelligence

Introduction

In the post-pandemic era when lock-down was no longer in place, virtual bedside teaching was continued in Department of Surgery of The University of Hong Kong (HKU) and of National University Health System Singapore for two reasons. First, many patients have significantly shorter hospital stay after minimally-invasive surgery. Second, virtual bedside teaching with chatbot allows tutors to design and standardize teaching materials, tailored for students' level and needs. Another important advantage of virtual bedside teaching is that the session is no longer restricted geographically. HKU and NUS has recently collaborated in organizing the world's first cross-territory virtual surgical bedside teaching in October 2023, using a self-designed generative AI chatbot as the virtual patient [1].

Reference

[1] Co M, John Yuen TH, Cheung HH. Using clinical history taking chatbot mobile app for clinical bedside teachings - A prospective case control study. *Heliyon*. 2022 Jun 19;8(6):e09751

Method

70 medical students from both universities participated in the Joint HKU-NUS virtual bedside teaching. HKU contributed a virtual patient with a giant phyllodes tumour operated 3 years ago in Hong Kong and NUS contributed a virtual Singaporean patient with complicated inflammatory bowel disease. Hong Kong students were instructed to clerk the virtual Singaporean patient where Singaporean students were instructed to clerk the virtual Hong Kong patient. Students were advised to spend approximately 30 minutes in taking clinical history from the AI chatbot with their own personal electronic devices. Online case discussion with all participants was then led by two academic surgeons from HKU and NUS. Clinical, radiological and pathological photos of the two virtual patients were shown, investigation and management were discussed. Like conventional bedside teachings,

active student participation and interaction were encouraged throughout the 2-hour virtual bedside teaching.

Results

Anonymous online questionnaires were collected to evaluate students' feedback on the joint-university virtual surgical bedside teaching. The response rate was 90%. Of these, 85.8% of students strongly agreed that this joint university virtual bedside teaching was effective in delivering knowledge and stimulate thinking. Students feedback that they appreciated this platform as it provided them the practise opportunity to synthesize information and translate it into verbal summary akin to exam viva sessions. All of them treasured the opportunities of learning from their peers internationally. 54.2% students strongly agreed that the AI chatbot was user friendly, 60% rated that the interaction with the chatbot was very good and 72% rated the input identification as very good.

Conclusion

Virtual bedside teaching with chatbot has revolutionised conventional bedside teaching by allowing international collaboration. This international collaboration and joint university bedside teaching also allows students to see virtual patients with disease which may not be prevalent in their own locality. With this initial success, HKU and NUS have considered to make it a regular teaching event. We are also open to collaboration with other universities around the world.

Exploring The Efficacy of Two Prominent Artificial Intelligence -Powered Tools as Supplementary Resources for Enhancing the Teaching, Learning, And Assessment of Human Anatomy in Medical Education

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Keywords

Artificial intelligence, Medical education, Human anatomy

Introduction

The phrase "artificial intelligence" (AI) refers to a broad range of technologies that allow robots and computers to simulate human intelligence. While the digital era is transitioning to the era of artificial intelligence, some professions, particularly medicine, will be disproportionately affected by this environment. Currently, the field of medicine is being transformed by AI technology, which is developing at a fast pace. Thus a fundamental and compulsory change in medical education should be undertaken to meet the demands of the revolutionizing world. Human anatomy is one of the key subjects which describes the organizational structure of the human body and enables it to lay the foundation for learning and understanding medicine. Therefore, the potential ability of AI to help in anatomy education is worth assessing in terms of its accuracy and deficiencies.

Method

This study was conducted with the aim of determining the potential abilities of Chat GPT; an AI chat bot that uses natural language processing to create human like conversational dialogue and Bing; an AI-powered search engine. Questions covering the ability of AI tools to aid in learning, assessment and research aspects of human anatomy were separately asked from both AI-powered tools by one

investigator. A blind review of responses was done by another two reviewers separately and independently. The disparities in the review comments were addressed by another reviewer and the final conclusions of the results were made in terms of accuracy, relevance, comprehensiveness and palatability of the responses.

Results

Both Chat GPT and Bing had the ability to provide detailed comprehensive descriptions of gross anatomy and human embryology. The sources of information they were using were also the same. However, the information provided on histology was inadequate. Both provided links to anatomical illustrations and radiological imaging. Regarding the applied anatomy aspect, both were capable of providing good explanations of clinical significance and the anatomical basis of certain clinical scenarios. Chat GPT was found to be more user-friendly as it is capable of providing concise summaries in text form. However, the ability to generate sample questions in both AI tools needs significant improvement. None of them did accurate good quality work on any aspect of the assessment method. Further, the ability to provide proper information on anatomical variations was also below average.

Conclusion

In conclusion, both Chat GPT and Bing are utilizing common external sources of information and their ability to be a teaching and learning aid in human anatomy is acceptable. Still, they need a lot of improvement in terms of being an aid in the assessment and research aspects. As medical education needs to be strengthened in order to keep up with the rapid development of AI, medical educators must ensure the proper use of AI with the above-mentioned improvements.

Kidnify – Elevating Chronic Kidney Disease Management with Machine Learning and IOT Through a Mobile Application

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Key Words

Chronic kidney disease, Machine learning, Internet of Things (IoT), Predictive modeling, Radiology image analysis, Water quality assessment, Personalized diet recommendation, Healthcare technology

Introduction

Chronic kidney disease (CKD) affects 16% of Sri Lanka's population, largely due to environmental factors like contaminated water. To address this issue, a research project is leveraging machine learning (ML) to develop a user-friendly smartphone app for accurate CKD prediction. The app empowers individuals to assess their risk and assists healthcare providers with early detection and personalized treatment plans. It also proposes an image processing-based app for precise CKD diagnosis and an ML-based system for water quality monitoring, enabling real-time alerts. This holistic approach aims to transform CKD management and water quality monitoring, benefiting public health in Sri Lanka.

Method

The development of the KidniFy mobile application involved several crucial phases. First, a meticulous data collection process gathered diverse datasets from multiple sources, including manual data gathering from kidney units across Sri Lanka, ensuring alignment with the specifics of the Sri Lankan patient group. Subsequently, extensive data preprocessing was undertaken, encompassing data cleaning, standardization, and transformation to make it compatible with machine learning algorithms, while addressing class imbalance using oversampling and under-sampling techniques. The machine learning model development phase included predicting kidney disease risk with high accuracy through support vector machines and neural networks, image processing for radiology images using a convolutional neural network model, IoT-based water quality assessment, and personalized diet plan recommendation. Model performance was rigorously evaluated using various metrics, and ethical considerations were paramount throughout, with institutional approvals, ethical guidelines, robust data protection measures, and transparent model predictions to safeguard patient privacy and ensure trustworthiness. Finally, all these components were integrated into a user-friendly mobile application framework with secure data communication protocols.

Results

The research on the Kidney Care Mobile Application demonstrates significant results in multiple areas. Machine learning and IoT technologies have shown their potential to revolutionize kidney disease care. The predictive model for kidney disease risk achieves high accuracy, precision, recall, and F1-score, indicating its ability to predict disease occurrence. Radiology image analysis using CNN exhibits exceptional accuracy in distinguishing normal and diseased images. The IoT-based water quality assessment system predicts contamination events swiftly. Personalized diet plans are tailored based on patient data. Ethical considerations and data protection measures are integral. Future directions include refining models, collaborating with experts, and expanding research scope to impact kidney care further.

Conclusion

In conclusion, the holistic approach adopted in this research, merging machine learning and IoT technologies, has yielded promising results across various dimensions of kidney disease care. The Kidney Care Mobile Application, underpinned by predictive models for risk assessment, radiology image analysis, water quality assessment, and personalized diet planning, is poised to revolutionize kidney care in Sri Lanka. By empowering patients, healthcare professionals, and the broader community with accessible tools and insights, this research contributes to improved patient outcomes and marks a significant stride toward addressing the pressing challenges posed by chronic kidney disease.

Listing for Free Communication Sessions

Monday 15th January 2024

10.45 am – 12.15 pm

Virtual Room 1

Free Communication Session 3 (Young Scholar) – Student Wellbeing

Impact of Economic Crisis on Well-Being of Medical Students in Faculty of Medicine, University of Colombo

Pesala Adikaranayake, Sri Lanka

I Had the Privilege of Being Trained by Faculty Who Lived That Motto: Faculty as Role Models for a Socially Accountable Workforce

Kalyani Premkumar, India

An Analysis of Selected Websites of Medical Schools in the WHO South-East Asia Region Related to Medical Humanities

Pasan Madhusankha, Sri Lanka

An Evidence Based Approach to Case Based Learning in Undergraduate Medical Ethics Education: A Systematic Review

Shalika Pathirana, Sri Lanka

Self-Care Education Among Medical Students

Darius Wan, Singapore

Computer Vision Syndrome and its Association with Ergonomic Practices among the Undergraduates of Faculty of Medicine, University of Colombo

Fazrina Faizer, Sri Lanka

Impact Of Economic Crisis on Well-Being of Medical Students in Faculty of Medicine, University of Colombo

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Keywords

Economic crisis, Medical student, Undergraduate life, Career goals and economic crisis, Economic crisis and well-being

Introduction

Sri Lanka is facing an economic crisis of an unprecedented severity. In 2022 this resulted in scarcity of essential items as food, fuel and electricity, and paved the way for civil unrest and riots yearning for political and system change.

Method

This descriptive cross-sectional study was conducted in July 2022 at Faculty of Medicine, University of Colombo. Medical undergraduates were selected using a random method from each batch

proportionately to the calculated sample size. A structured self-administered questionnaire was used to collect the data from participants via Google-forms. Socio-demographic data, the self-reported impact of the economic crisis on physical well-being (diet, physical activity and sleep), psychosocial wellbeing, quality of education, and career plans were assessed. The responses were recorded using a 5-point Likert scale. Continuous variables were compared using student's t-test and categorical data using chi square test. SPSS version 23.0. was used to analyze. P-value of <0.05 was considered as significant.

Results

Response rate was 89.1% (376/422). Mean age was 23.52 years (± 2.1) and more than half were females (196,52.1%). Study sample consisted of preclinical (n=125,33.2%) and clinical year(n=263,69.9%) students, out of clinical year students, 67(25.5%) were in the final year and 196(74.5%) in the pre-final years. Most were permanently resident outside the Western province (n=198,52.6%) and 178(47.3%) had a monthly family income of <Rs.100,000. Majority (n=239,63.6%) agreed that they were unable to access a healthy diet and 279(74.2 %) claimed that crisis caused limitation in varieties of accessible food. Considerable number of students did not have enough food (n=154,40.9%) and 148(39.4%) skipped meals. Perceived level of physical activity had increased in 154(40.9%), and decreased in 100(26.6%). Both the duration of sleep and quality of sleep had reduced in 17.6%(n=66) and 32.9%(n=124) respectively. As they perceived, 288(76.6%) had adverse impact on their psychological well-being. Hopelessness towards future 277(73.7%), increased anxiety towards day-to-day activities 215(57.2%), poor concentration on academic work 163(43.4%), being stressed 232(61.7%), and increased irritability 187(49.7%) were the identified contributors. Regarding the social well-being, majority were unable to socialize 239(63.6%), 173(46%) were having difficulties in maintaining proper relationships and 262(69.7%) were having lesser involvement in recreational activities than before. The learning experience in medical faculty has been affected severely in 15.4%(n=58), moderately in 48.9%(n=184), and mildly in 26.6%(n=100) students. A significant change in future career goals during the period of crisis was observed compared to pre-crisis era. While, 267(71.01%) students had had aims to become a specialist consultant the current situation had reduced the interest in pursuing a specialist career to 60.1%(n=226) ($p < 0.001$). Interest in an academic/ research -oriented career had tripled from 10(2.7%) to 32(8.5%), $p < 0.01$.

Conclusion

These findings indicated that Sri Lanka's current economic crisis has had a negative impact on the well-being of medical undergraduates of Faculty of Medicine, University of Colombo. It can be recommended that strategies must be planned to implement in such situations such as mentor-mentee programs for psychological well-being, establishing a healthy and affordable meal option at faculty premises, arranging all possible renovations for accommodations, and a loan scheme for financial aid.

"I Had the Privilege of Being Trained by Faculty Who Lived That Motto: Faculty as Role Models for a Socially Accountable Workforce"

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Keywords

Social accountability, Medical education, Faculty development

Introduction

This is part of a larger exploratory study that investigates the facilitators of social accountability (SA) among alumni from Christian Medical College, Vellore, India— an institution that has produced several health professionals who have continued to practice in and serve their communities.

Method

This study employed an exploratory mixed methods design (QUAL-> Quant) of alumni perceptions and experiences. The qualitative phase included 21 in-depth, semi-structured interviews of alumni regarding the influence of their undergraduate learning environment on their SA. This was followed by a quantitative survey designed from the themes identified from the qualitative data.

Results

Emerging themes from the interviews highlighted community-centered education, and a focus on social and preventative medicine in curricular and non-curricular facilitators, and overall environmental factors that drive SA among physicians. A key theme among the environmental factors was “faculty as role models”. The quotes expressed how alumni saw the faculty prioritizing the needs of the community and prompting students to come up with creative, cost-effective solutions while working in rural and remote areas with limited staff and resources. These practices allowed students to understand how the core value of the institution to serve the community was operationalized in practice. The subsequent quantitative survey received 208 eligible responses from alumni who graduated between 1955-2022, with a mean age of 54.28 years, residing predominantly in India (64.40%), followed by North America (19.20%), and Europe (10.60%). Furthermore, 49.7% of participants perceived faculty as role models to be a key facilitator of SA medical education.

Conclusion

This study contributes to the limited literature on SA from India and is the first of its kind investigating SA among medical school alumni. The exploratory nature of the study allowed the emergence of an important theme— “faculty as role models”, followed by a confirmation from 49.7% of responses in the survey. This finding may be leveraged by medical schools to intentionally channel SA initiatives towards both students and faculty. Medical school alumni perceive their faculty as important role models of socially accountable practice. This finding should inform the design of faculty development and SA activities in the future.

An Analysis of Selected Websites of Medical Schools in the WHO South-East Asia Region Related to Medical Humanities

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Keywords

Medical Humanities, South-East Asia Region (SEARO), Medical school websites, Healthcare education

Introduction

Medical education is more than just clinical skills. Integrating medical humanities into the healthcare education curriculum plays a significant role in shaping the character of medical professionals. This study delves into how medical schools in the WHO South-East Asia Region (SEARO) communicate and emphasize these values on their websites by examining the occurrence of words related to medical humanities and their relevant Mesh terms within the vision, mission, objectives, and outcomes

sections of their websites. we gain insights into the extent to which these institutions prioritize the human aspects of healthcare.

Method

Data was collected from the websites of 183 medical schools in Southeast Asia, encompassing 810 faculties. The research employed a combination of convenience and comprehensive sampling. While a convenient sampling method was used for countries with high numbers of medical schools (India, Bangladesh, and Indonesia), data was extracted from all medical school websites in other countries (Maldives, Myanmar, Nepal, Sri Lanka, and Thailand). This approach ensures representation from a diverse range of institutions across the region. Data was extracted by examining the occurrence of 26 medical humanities-related words such as humanities, compassion, ethics, communication, social medicine, spirituality, morality, arts, culture etc. and relevant mesh terms selected from the MeSH database. The use of these terms and their contexts were evaluated by the research team.

Results

The analysis of data extracted from medical school websites unveils intriguing insights into the adoption of medical humanities within the educational philosophies of Southeast Asian medical schools. Notably, terms such as "compassion" and "ethics" are recurrently found across the vision, mission, objectives, and outcomes sections. Communication skills, vital for effective healthcare practice, are addressed in both vision/mission and objectives/outcomes. The inclusion of terms related to "arts," "culture," and "social medicine" reflects a comprehensive approach to medical education that extends beyond clinical expertise.

Conclusion

The frequency of the appearance of words pertaining to Medical Humanities on the websites of Southeast Asian Medical schools shows prominence given to ethics and communication skills compared to other aspects of Medical Humanities. As medical education is evolving to encompass broader aspects of the human condition and society in tackling health, incorporating aspects of Medical Humanities to the agenda of Medical Schools can benefit future healthcare.

An Evidence Based Approach to Case Based Learning in Undergraduate Medical Ethics Education: A Systematic Review

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Keywords

Case-based learning, Medical ethics, Undergraduate medical education

Introduction

Case-Based Learning (CBL) is a well-known teaching strategy used for medical ethics education. Medical educators employ different approaches and strategies for CBL in teaching medical ethics at medical schools. Despite the widespread use of CBL in medical ethics education, there is a notable lack of high-quality evidence on approaches and strategies for CBL in instructing medical ethics to medical students. The aim of this study is to systematically review the literature on CBL over the past decade, identifying prevalent approaches and strategies associated with CBL in teaching learning of medical ethics for medical students.

Method

This study followed the PRISMA guidelines. The PubMed, Scopus, CINHAL and EBSCO databases were searched through a comprehensive search strategy covering articles written in English during the period of January 2014 to July 2023. We included studies that met the following PICO (population, intervention, comparison, and outcome) criteria: (i) P-medical students exclusively or in an interprofessional educational setting; (ii) I- case based teaching and learning using clinical cases, ethical dilemmas, clinical vignettes, or clinical scenarios; (iii) C-none; (iv) O-medical ethics education and ethical reasoning development in any of the large group or small group or combined settings. The Mixed Methods Appraisal Tool (MMAT) version 2018 was used for the risk of bias assessment. The data was synthesized and analysed thematically.

Results

Out of 54 distinct studies, 19 met the inclusion criteria. One study was included after the reference review, making a total of 20 studies for the review. Quantitative (n = 5), qualitative (n = 8), and mixed-method (n = 7) studies were included. We categorized the resulting case-based approaches used for medical ethics education over the past decade as: ethical dilemma-based small group learning or problem-based learning sessions; clinical vignettes-based near-peer teaching programs; case-based reflective logs; and online group discussions or debates. Commonly used strategies to make case-based learning sessions on medical ethics more efficient include selecting high-quality cases that are relevant to the learning outcomes, aligning the case discussions with the learning outcomes, having medical experts facilitate the discussions, establishing norms for the discussion phase, and facilitating the students before and during the case discussions. However, only two studies out of 20 reviewed focused on linking routine assessment with ethics learning through CBL. We identified several less focused yet effective strategies for case-based ethics discussions: (i) allocating sufficient time to develop the moral reasoning skills of students; (ii) providing a framework for case analysis; (iii) providing guidance after the case discussion; and (iv) facilitating the case discussions with a multidisciplinary team.

Conclusion

Heterogeneity exists in the approach and strategies used during undergraduate case-based medical ethics education. There is a gap in the existing literature on the efforts of medical educators to integrate CBL approaches of medical ethics learning with medical school routine assessments. Although this review has certain limitations, such as the absence of control groups, potential self-selection bias, and the utilization of non-standard outcome measures, it still offers valuable insights that can assist medical educators in designing contextually relevant case-based medical ethics sessions.

Self-Care Education Among Medical Students

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Keywords

Self- Care, Mental health, Burnout, Stress

Introduction

Increasing reports of stress among medical students underline the need for greater self-care education in medical schools. However, self-care practices are highly individualised and context-sensitive, limiting efforts to develop a consistent self-care training curriculum. To address this lacuna,

a holistic review of current self-care education in medical schools is proposed. Specifically, we pose the research question, “What is known about self-care education interventions in medical schools?”

Method

A Systematic Evidence-Based Approach guided systematic scoping review (SSR in SEBA) was utilised to investigate the provision of self-care education in medical schools. The study focused on articles published between 1 January 2000 and 31 December 2021 in the following databases: PubMed, Embase, PsycINFO, ERIC, Google Scholar, and Scopus. This process was complemented by hand searches of key education journals. The included articles were thematically, and content analysed, and the categories and themes identified were combined using the Jigsaw Approach. The domains created from the Funnelling Process framed the discussion to reveal what is known about self-care education in medical schools.

Results

A total of 3969 abstracts were identified, 367 full-text articles evaluated, and 108 articles included. The 6 domains identified were definition, topics, pedagogy, influences, outcomes, and assessment. Of the wide variety of interventions suggested, mindfulness-based interventions were most recommended. Most interventions were promising and positively impacted students’ own personal wellbeing, as well as their patient care. It is also notable that peer-led interventions provided an edge over academic-lead ones as students found greater relatability and engagement. Despite the apparent successes, several barriers hindered the effectiveness of these interventions. There is often low adherence to interventions as students perceived these sessions as futile or unsuitable for their self-care practices.

Conclusion

Affording greater importance to self-care programs by ringfencing specific sessions for self-care training and ensuring that competencies are assessed through longitudinal appraisals is key to improving self-care education in medical schools. The host organization must ensure faculty are trained to assess, select the appropriate approach, support the individual needs of medical students, and nurture an effective training environment. Further study is required to better assess self-care competencies and integrate them into portfolios.

Computer Vision Syndrome and its Association with Ergonomic Practices among the Undergraduates of Faculty of Medicine, University of Colombo

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Keywords

Computer Vision Syndrome, Ergonomic Practices, University students, CVS-Q

Introduction

Computer Vision Syndrome (CVS) has become a significant health concern due to the widespread use of electronic digital devices. Undergraduate students use electronic devices for prolonged hours for their learning in static postures which can have long term consequences. This study aims to identify the prevalence of CVS and its association with different aspects of ergonomic practices among the Undergraduates of Faculty of Medicine, University of Colombo.

Method

This descriptive cross-sectional study recruited 105 medical students, studying in second and third academic years from the Faculty of Medicine, University of Colombo. Computer Vision Syndrome questionnaire (CVS-Q) and questionnaire on ergonomic practices were used to detect the symptoms of CVS and ergonomics practiced. Descriptive statistics, Pearson Chi Square test and independent sample t test were used during statistical analysis.

Results

The prevalence of CVS among study participants was 44.8%, with the most common symptom being headache (71.4%). Workstation and seating ergonomics had a significant relationship with prevalence of CVS ($p=0.010 - 0.047$). A statistically significant relationship was shown between taking breaks during the use of devices ($p= 0.038$), duration of computer usage ($p=0.032$) and academic year (0.002) with the prevalence of CVS.

Conclusion

A significant proportion of the participants were suffering from CVS. CVS was associated with workstation and seating ergonomics. Improper workstation and seating ergonomics, prolonged use of electronic digital devices without breaks and higher academic year were risk factors of CVS. Increasing awareness on CVS, integrating ergonomic education and encouraging breaks may reduce the risk of developing CVS. Therefore, regular eye checkups, implementing proper ergonomics and encouraging screen time management among students is recommended.

Listing for Free Communication Sessions

Monday 15th January 2024

10.45 am – 12.15 pm

Virtual Room 2

Free Communication Session 4 (Young Scholar) – Teaching and Learning

Validating and Translating a Questionnaire to Assess Language Experience and Proficiency in Bilingualism: A Comparison Between Human and AI-Driven Translations

Thanuja Kabulugalage, Sri Lanka

Evaluation of Learning Outcome of Studio-Based Learning Setting in Cadaveric Dissection Workshop: A Comparative Analysis with Traditional Dissection Education

Yat Shun Mak, Hong Kong S.A.R.

Use of Large Language Models Tuned with Socratic Methods to Aid Medical Students Learning

Cai Ling Yong, Singapore

The Pharmacist and Health Care Worker Perspective on Pharmaceutical Inventory Management in the Community Health Centers (CHC) in Dili, the Capital of Timor-Leste, a Developing Country in South East Asia

Celita Maria Paula Trindade da Costa Freitas, Timor-Leste

Objective Structured Teaching Evaluation (OSTE) by “Group” Instead of “Individual”

Chia-Hung Chen, Taiwan

Humanizing Healthcare Practice and Education: Exploring the Role of Regulatory Frameworks in the WHO South-East Asia Region

Gihani Jayawardana, Sri Lanka

Validating and Translating a Questionnaire to Assess Language Experience and Proficiency in Bilingualism: A Comparison Between Human and AI-Driven Translations

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Keywords

Bilingualism, Human Translation, Machine Translation, Language Proficiency, Language Experience

Introduction

In an increasingly interconnected world, bilingualism and effective communication across linguistic barriers are essential, particularly in medical education. We undertook to translate and validate the Language Experience and Proficiency Questionnaire (LEAP-Q) as part of a study to explore Sinhala-English bilingualism in medical students. The other objective was to compare Human Translation (HT) with AI-driven Machine Translation (MT).

Method

The LEAP-Q was translated into Sinhala, the native language, using HT and MT. The HT process involved forward translation by two independent translators, backward translation by two other translators, and a comparison of the findings to ensure translation fidelity. An expert panel ensured linguistic accuracy and cultural appropriateness. In order to compare with MT, we used Google Translate, an AI-based open-access tool. Comparisons between the two questionnaires were made by 30 participants who focused on qualitative characteristics selected by the authors: clarity, accuracy, cultural appropriateness, simplicity, flow, cohesion, and overall quality. A Google feedback form was used to gather data and appropriate statistics were used to analyze the data.

Results

In the study, most participants (20/30) found HT clear, accurate, and culturally appropriate. Many (18/30) perceived HT as simple and cohesive. 83.3% preferred HT, 10% preferred MT, and 6.7% had no preference. Mann-Whitney U test ($U = 81.500$, $p < 0.001$) indicated higher clarity in HT. HT outperformed MT significantly in accuracy, culture, simplicity, cohesion, and overall ratings ($p < 0.001$). Negative Z-scores (-5.653 to -5.773) emphasized human translations' consistent superiority.

The qualitative analysis provided insights into participants' perceptions of HT and MT. Findings showcased 6 themes: HT was commended for clarity, comprehension, immediate understandability, compared to MT content. HT had a better ability to express emotions (the Engagement and Emotional Nuances theme), handle technical jargon and complexity. HT was perceived as culturally sensitive (Cultural Appropriateness theme). In the theme of Personalization and Human Touch, readers felt that the HT performed better. Lastly, the flow and naturalness of language, (captured under Language Flow and Naturalness theme), favored HT. These thematic insights underline the enduring value of HT, highlighted for its clarity, emotional depth, cultural sensitivity, and natural language flow.

Conclusion

This research sheds light on the utility, appropriateness and higher quality of HT over MT in translating a questionnaire to assess language experience and proficiency. The findings underscore the continued challenges faced by machine translation systems in achieving the linguistic nuances. It underscores the importance of human translators in bridging linguistic gaps effectively. As we move forward, even in an AI era, the translation of a questionnaire still needs the contribution by human translators.

Evaluation of Learning Outcome of Studio-Based Learning Setting in Cadaveric Dissection Workshop: A Comparative Analysis with Traditional Dissection Education

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Keywords

Studio-based learning, Cadaveric dissection, Anatomy pedagogy, Traditional dissection education, Self-directed learning

Introduction

Cadaveric dissection has long been a fundamental component of medical education for students to learn human anatomy spatially. However, recent studies have indicated that supplementing

Listing for Free Communication Sessions

traditional dissection with studio-based learning (SBL) can enhance the learning experience and improve outcomes. This study aims to evaluate the effectiveness of a pilot SBL cadaveric dissection workshop initiated by The Chinese University of Hong Kong (CUHK) and compare its outcomes with traditional dissection education.

Method

The SBL dissection workshop targeted year 2 medical students who had completed the relevant pre-clinical anatomy curriculum except for the head and neck region. Unlike the traditional approach of conducting dissections with 10 students per group within a limited timeframe, the students were given a dedicated 8-week period for hands-on dissection. During this time, they were also encouraged to engage in self-directed learning at their own pace. The aim was for each student to create a prosected specimen and a presentation video, which would be evaluated as part of their learning Assessment. The data for qualitative and quantitative research methods by the CUHK ethical approval in the learning outcomes according to presentation videos and post-workshop comments from 29 students were collected and analysed.

Results

After the analysis of SBL post-workshop comments, all the participants had a positive perception towards the SBL setting in general, expressing several advantages over traditional dissection education. Interestingly, the workshop allowed students to foster critical thinking, problem-solving, and creating a knowledge base beyond the standard curriculum. In comparison, students must adhere to complete assigned tasks in traditional dissection sessions, participants in the SBL dissection workshop chose their pieces of body part to concentrate on more demanding topics, specifically the head and neck region, which had not been included in the year 2 curriculum. This demonstrated the ability of SBL to facilitate independent and flexible exploration, thereby expanding students' anatomical knowledge. Additionally, 24 out of 29 participants reported that they could identify structural variations and abnormal anatomy with their associated clinical relevance. While dissection is generally perceived as a time-consuming learning activity by students, a number of students expressed a desire to lengthen the workshop duration. Nonetheless, it should be noted that the duration of the SBL (217 hours) is significantly longer than that of normal dissection sessions in the CUHK Year 2 curriculum (30 hours). This shows that the SBL could effectively cultivate students' passion for exploring beyond the curriculum.

Conclusion

The study highlights the propose-critique-iterate process of the SBL dissection workshop over the formal setting of traditional dissection education. The SBL setting emphasizes self-directed learning to develop generic skills such as communication and problem-solving, contributing to an enriched educational experience. Accordingly, by allowing students to explore beyond the standard curriculum, gain in-depth anatomical knowledge, and understand clinical implications, SBL prepares them better for clinical practice related to professional competency.

Use of Large Language Models Tuned with Socratic Methods to Aid Medical Students Learning

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Keywords

Large Language Models, Surgical Education, Artificial Intelligence, Prompt Engineering, Chatbot

Introduction

Large Language Models (LLM) are AI models that can generate conversational content based on a trained specified source of information (corpus). The aim is to use these corpus-trained LLMs to limit the content offered by LLM, then using prompt engineering to teach Socratic methods. The Socratic method refers to question-and-answering techniques to teach medical students the use of specific content.

Method

Two chatbots were created and deployed on the commercial cloud. The language models used were OpenAI's GPT-3.5 model, with a reference corpus using a medical school approved textbook. The first chatbot was programmed through prompt engineering to respond to a topic given by the user through generating a brief summary and an open-ended question. The chatbot replies to the user's response, commenting on the accuracy and asks further questions to encourage critical thinking.

The second chatbot was programmed using prompt engineering to generate a case vignette from its pre-trained clinical cases in response to a topic given by the user. It will ask the user for a diagnosis and will rate the answer and provide explanations. It will then continue to ask questions similar to the first chatbot.

A randomised controlled trial was conducted on two randomly equally divided groups comprising third year medical students at the beginning of their General Surgery rotation. A 15-question test consisting of 14 Multiple Choice Questions and one case vignette was administered to both groups, and are scored according to their responses, without revealing the correct answer to the students. Subsequently, one group was asked to read the softcopy of the medical textbook that is similar to that used to train the chatbot for 10 minutes, while the other group was asked to use the two chatbots for 10 minutes. The same 14 MCQs with a different case vignette was administered to both groups again, noting their responses. A paired t-test was performed to check for statistical significance, with $p < 0.05$ considered significant. The number of students recruited were calculated using a study power calculator (with power=80%, alpha=0.05, anticipated mean for group 1 and 2 respectively=7+/-2 and 10, enrolment ratio of 1), the number of students required was 7 for each group according to the above.

Results

Forty students participated in the study. The average of the group before and after reading the textbook (n=20) are 3.9 +/- 1.0 (2 to 6) and 7.6 +/- 1.5 (5 to 11) respectively ($p < 0.001$). The average of

Listing for Free Communication Sessions

the group before and after using the bot (n=20) are 3.9 +/- 0.9 (9 to 15) and 12.8 +/- 1.6 (9 to 15) respectively (p<0.001).

The respective increase in results was 3.7 and 8.9.

Conclusion

Medical students' learning was compared using a LLM based chatbot versus self-reading of medical information and was assessed using a standardised test. This showed a better performance among students who used LLM compared to self-study. More studies are required to determine if LLM-based pedagogical methods are superior to standard education.

The Pharmacist and Health Care Worker Perspective on Pharmaceutical Inventory Management in the Community Health Centers (CHC) in Dili, the Capital of Timor-Leste, a Developing Country in South East Asia

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Keywords

Health care professional, Pharmaceutical inventory management, Community health center, Stock-out issues, Timor-Leste, Inventory management practices, Comprehension level, Inventory control, Ineffective inventory management, Competent pharmacy managers

Introduction

Pharmacies employ inventory management techniques to address demand fluctuations and reduce costs. Competent pharmacy managers oversee various aspects of inventory control. Effective inventory management in healthcare organizations has a positive impact on patient care.

Previous studies conducted on inventory management in primary care settings in Timor-Leste have revealed that a knowledge gap and a lack of capacity in inventory management contribute to stock-out issues.

Method

Interviews were conducted by pharmacists with health care professionals including pharmacists about their baseline knowledge and practices about inventory management in the community health center. There were 15 participants: pharmacists 2, medical coordinator 1, nurse 1, CHC lead 1 based in 3 community health centers (Comoro, Formosa, Vera Cruz) in Dili.

Results

The input collected originates from varying viewpoints amongst healthcare workers. Different levels of comprehension are reflected in their perceptions of inventory management, particularly in terms of the best practices implemented in the community health center. This reinforced to the pharmacist the barrier which exists in the community health centers regarding inventory management.

Note: data collection and analysis is still ongoing at this moment and full results will be available by January 2024.

Conclusion

The pharmacist, nurses, doctors, medical coordinator and CHC lead demonstrate ineffective inventory management due to their limited understanding of the concept.

Objective Structured Teaching Evaluation (OSTE) by “Group” Instead of “Individual”

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Keywords

OSTE, Group, Instructor

Introduction

The objective structured teaching exercise (OSTE) is a training approach designed to enhance the teaching and interpersonal communication skills of instructors. Here, we presented how we organized OSTE by “group” instead of “individual” to train instructors.

Method

On September 14, 2023, we conducted the OSTE using a group-based approach. There were four groups, each consisting of six instructors, resulting in a total of 24 instructors participating in the OSTE. During the evaluation, we assessed four questions that incorporated video elements. Subsequent to the OSTE, a focus group interview was administered contingent upon the instructors' consent. The qualitative investigation was founded upon the verbatim transcripts extracted from this interview.

Results

Nine instructors were agreed to be interviewed. The interview lasted for 43 minutes. The qualitative analysis revealed that this approach provides (1) a relatively relaxed ambiance and (2) heightened interactive communication. Furthermore, our findings indicate that consensus on responses during discussions engenders a heightened sense of resonance.

Conclusion

OSTE by “Group” fosters a relaxed atmosphere and improves interactive communication. Additionally, consensus on responses during discussions enhances a sense of resonance. This method holds applicability within the realm of teacher training.

Humanizing Healthcare Practice and Education: Exploring the Role of Regulatory Frameworks in the WHO South-East Asia Region

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Keywords

Medical Education, medical Humanities, Health Humanities, Regulatory Authorities, Medical Councils, Healthcare professionals

Introduction

Incorporating medical humanities into medical education has gained prominence as a means to foster well-rounded healthcare practitioners. This study explores the regulatory landscape of the WHO South-East Asia Region (SEARO) by analyzing the Code of Ethics/Conducts and Medical Law/Acts and mission, vision, values, and outcomes mentioned on the websites of Medical Regulatory Authorities. Insights derived from this study hold the potential to inform curriculum design, educational strategies, and regulatory policy in the pursuit of holistic healthcare provision. This endeavor acknowledges the evolving healthcare landscape and aims to foster dialogue around the integration of medical humanities, underscoring their pivotal role in shaping the next generation of healthcare professionals in the SEARO region.

Methods

A systematic online review was carried out using selected MeSH terms. Mission, Vision, Values and Outcomes, Code of Ethics/Conducts, and Medical Law/Acts of countries were reviewed according to availability. Data was extracted by examining the occurrence of 26 medical humanities-related words such as humanities, compassion, ethics, communication, social medicine, spirituality, morality, arts, culture, etc., and 52 relevant mesh terms selected from the MeSH database. The use of these terms and their contexts were evaluated by the research team. Key informant interviews were conducted following a structured questionnaire covering the areas of institutionalizing Medical Humanities from the perspectives of historical evolution in medical schools, curriculum development and implementation, and the status of regulatory bodies in reflecting the humane qualities and virtues transmitted through medical curricula.

Results

Only 9 (of 11) member countries of the SEARO Region had relevant resources except for DPR Korea and Timor-Leste. In the screening of nine SEARO country websites, eight showcased mission, vision, values, or outcomes, with Thailand being an exception. "Ethics" was repeatedly mentioned in the Mission and Vision of Sri Lanka, Myanmar, Bhutan, Maldives, and India. Other terms were "moral," "communication," and "culture" also figured. Seven codes of ethics have the terms "humanity," "compassion," "ethics," and "communication" while language barriers impeded the assessment of Indonesian and Myanmar Codes of Ethics. Notably fewer keywords appeared in nine medical acts compared to codes of ethics, with "ethics," "moral," "communication," and "art" standing out. These terms were stated in the context of directives or recommendations for inclusion in the curricula of medical schools.

Conclusion

The regulatory documents five varying degrees of emphasis for ensuring the teaching of topics related to medical humanities: "ethics", "communication," "morals," "culture," and "compassion". More firm directives by regulatory bodies could shape curriculum design and educational strategies to promote the introduction of teaching / learning these humane attributes in medical schools for nurturing a generation of healthcare professionals equipped with a comprehensive skill set to provide holistic and patient-centered care.

Listing for Free Communication Sessions

Monday 15th January 2024

1.30 pm – 3.00 pm

Virtual Room 3

Free Communication Session 5 (Young Scholar) – Teaching, Learning and Assessment

Readability of Recommended Textbooks of a Medical Course in Sri Lanka: Current Status and Role of AI

Thanuja Kabulugalage, Sri Lanka

Preparedness of Medical Students for the Fourth-Year Anaesthesiology Clinical Appointment

Harith Wickramasekara, Sri Lanka

Instructional Design Models for Digital Learning in Higher Education – A Scoping Review

Vindya Senadheera, Sri Lanka

Development of a Valid and a Reliable Procedural Performance Assessment Checklist

Kaumudee Kodikara, Sri Lanka

The Knife Life – Surgical Podcast for Undergraduate Medical Students

Serene Goh Si Ning Goh, Singapore

Communication Between Nursing Staff and Patients in Timor-Leste

Dulcia Cardoso, Timor-Leste

Readability of Recommended Textbooks of a Medical Course in Sri Lanka: Current Status and Role of AI

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Keywords

Readability, Artificial Intelligence, Medical Education, Text Simplification

Introduction

Medical education relies on textbooks and educational materials. Ensuring the accessibility and comprehensibility of these resources is crucial. A majority of Sri Lankan students study up to GCE Advanced Level (A/L) in Sinhala or Tamil shift to English medium in medical schools. As a result, they have variable fluency in reading and understanding textbook. The objective was to assess the readability of textbooks recommended for the Bachelor of Medicine, Bachelor of Surgery (MBBS) using the Flesch-Kincaid Readability Index and compare with the average readability at GCE Ordinary Level (O/L). The latter was assumed as the basic minimum of English fluency to function as a graduate. We also studied whether AI based tools could be used to simplify texts to the latter level.

Method

We randomly selected 20 pages from 14 textbooks recommended for the MBBS curriculum in Sabaragamuwa University of Sri Lanka in Anatomy, Physiology, Biochemistry, Microbiology, Pathology, Pharmacology, Parasitology, Community Medicine, Forensic, Paediatrics, Medicine, Surgery, Obstetrics and Gynecology, and Psychiatry. A computer-based random number generator was used to select the pages of the textbooks. The readability of the largest paragraph (more than 100 words) of the randomly selected pages was assessed using the MS Word 2010 Flesch-Kincaid Readability Index, recognized as the gold standard. The higher values of Flesch-Kincaid Readability Index suggests more difficulties in comprehension (ie less readable). We also determined the readability levels of workbooks and books used in the subject of English Language at O/L. We selected 3 paragraphs that had the highest scores of the Flesch-Kincaid Grade level from each textbook and used ChatGPT to reduce the readability score the O/L English readability score. Appropriate statistical analyses were performed.

Results

The Flesch-Kincaid Readability index of recommended textbooks was 14.72 (+/-SD=2.37) compared to 8.84 (+/-SD=2.10) for the O/L English Books ($p < 0.001$). The AI-driven ChatGPT was instructed to reduce the readability score to 9 (as an approximate of 8.84 the O/L (Ordinary Level) English readability score. However, it was able to significantly reduce the results to a mean score of 16.59, (+/-SD=2.25) from a mean 18.81 (+/-SD=2.59), $p < 0.001$.

Conclusion

This research provides valuable insights into the poor readability indices and therefore difficulties in comprehension of recommended textbooks in an MBBS course. The study highlights the need to promote textbooks potential of AI-driven tools (ChatGPT in this instance for text simplification. If this process could be improved more students would be able to understand essential content. These findings underscore the effectiveness of AI-driven text simplification significantly enhances the readability of complex medical texts, making them more accessible to medical students.

Preparedness of Medical Students for the Fourth-Year Anaesthesiology Clinical Appointment

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Keywords

Awareness, Anaesthesia, Clinical education

Introduction

Anaesthesiology as a clinical appointment in the undergraduate period kindles interest in medical students and provides an opportunity to implement various teaching methods for clinical teaching. It has been observed, and it has been a frequent complaint from consultant anaesthetists that most medical students had not referred to the lists of objectives and/or reading materials before the anaesthesiology clinical rotation. Literature on past studies in relation to this topic is scarce locally and internationally. This study addresses this deficit and identifies the related issues in order to develop strategies to counteract them.

Method

This was a descriptive cross-sectional study conducted over a period of three months. 141 medical students who have completed anaesthesiology appointments in the Faculty of Medicine, University of Kelaniya, were taken into this study using simple random sampling method. A self-administered online questionnaire was used to collect data.

Results

38.3% (n=54) male and 61.7% (n=87) female medical students participated in this study, and 85.1% (n=120) were aware of the objectives to be completed during the appointment. 66% (n=93) of the participants were aware of the reading material to be referred to before the appointment. 15.6% (n=22) of participants were unaware that objectives and reading materials were mentioned in the clinical handbook, and 19.9% (n=28) of the participants had not gone through the material before the appointment. No statistical significance was noted between the gender and the awareness of objectives to be completed during the appointment (Asymp. sig - 0.984), and there was no statistical significance observed between gender and the awareness of the reading materials to be referred for the appointment (Asymp. sig - 0.186). The main reasons for not going through reading material are lack of awareness of objectives (n=16) and lack of time (n=7). Statistically, no significance was seen between gender and observing the insertion of an endotracheal tube (Asymp. sig - 0.799) and observing the administration of spinal anaesthesia (Asymp. sig - 0.168). However, a statistical significance was seen between gender and learning on the management of anaphylactic shock (Asym. Sig - 0.04).

Conclusion

Although a majority of students were aware of the lists of objectives and reading materials in the clinical handbook, the minority of students who did not refer to these lists beforehand cited lack of awareness and lack of time as the main reasons they could not refer them. Therefore, it is in the best interests of both the students and their institutions that these awareness gaps are addressed while being aware of students' tight schedules. This will undoubtedly contribute to better student engagement and a more effective learning experience for students during clinical appointments. Results being similar between male and female students suggest that tailored approaches are not required in this regard. It should be noted that the findings of this study could be applied to improving clinical education in other clinical streams in addition to anaesthesiology. Future research could extend to comparative studies between anaesthesiology education and other clinical streams.

Instructional Design Models for Digital Learning in Higher Education – A Scoping Review

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Keywords

Digital learning, Instructional design models, Higher education, Digital transformation

Introduction

Teaching and learning process in higher education is currently undergoing a rapid digital transformation. This digital transformation has to follow a reliable and consistent procedure in order to achieve an effective and high-quality digital teaching and learning process. Instructional design (ID) is a systematic process that is used to develop education and training programs in a consistent and

reliable way. An ID model represents this systematic process. A key challenge faced by educators is selecting an ID model by deciding which ID model will be more suitable in order to achieve an effective digital teaching and learning process. The objective of this scoping review was to present recommendations to select ID models for digital learning in higher education. Therefore, the objective of this scoping review was to present recommendations to select ID models for digital learning in higher education by investigating three critical research questions (RQs), which are; 1) What are the key factors to consider when selecting an ID model? 2) What are the ID models which can be used in digital learning? And 3) What can be the impact of using each ID model?

Method

Nine databases including SCOPUS, EBSCOhost, Emerald, JSTOR, Taylor and Francis, PubMed (MEDLINE), ERIC, ACM and IEEE Xplore were searched for eligible publications. Quantitative, qualitative and mixed-method research conducted on instructional system design models in digital learning in higher education and which were reported in English language were included in this review. The study selection was performed using the Covidence platform.

Results

The search retrieved 643 records. Forty articles from 23 countries covering 15 fields of study which were published from 2001 to 2022 were included in this review. Among them, 30 studies used existing ID models (i.e. number of articles which used each ID model: ADDIE - 20, Rapid prototyping - 3, 4C/ID model - 2, Morrisons, Ross and Kemp (2004) – 2, IDEA – 1, ASSURE – 1, Six-step blended learning conversion model – 1) and the rest created new ID models.

Conclusion

Employing a systematic process in instructional design (an ID model) produces effective, consistent and reliable digital teaching and learning in higher education. Awareness on; factors to consider when selecting an ID model, the ID models available for digital learning and the impact of those ID models is crucial for an educator to achieve an effective and high-quality digital teaching and learning process. Selection of an ID model depends on the specific requirements of the course (ex. mode), timeline, resources available for design and development of the course and the expertise in ID process. ADDIE is the most commonly used ID model because it provides a generic process for developing instructional materials which can be used in all three modes (face-to-face, blended and online) and can be used by academics and instructional designers new to ID. In the circumstances in which ID models in current practice are not adequate to meet explicit needs of a course, new ID models can be created based on existing ID models to fulfil those needs.

Development of a Valid and a Reliable Procedural Performance Assessment Checklist

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Keywords

Procedural skills, Medical students, Competency

Introduction

Venepuncture is an essential bedside skill on which all health professions students are expected to be proficient upon graduation. However, there is no validated tool to objectively assess venipuncture

skills in the literature. The purpose of this study was to develop a reliable and valid tool to measure venepuncture competency among medical undergraduates.

Method

The approach to developing the venipuncture-specific checklist consisted of five steps. Step 1: Determining the content of the tool from existing literature and expert opinion; Step 2: Generating an item pool; Step 3: Devising scoring categories; Step 4: Expert review and evaluating feedback through two Delphi rounds; and Step 5: Pilot testing the checklist. Items endorsed by less than 20% of the experts were omitted. Two raters independently completed the checklist on students performing venipuncture on actual patients in wards at the Colombo North Teaching Hospital, Sri Lanka.

Results

The items included in the checklist were extracted from the World Health Organization guidelines on phlebotomy and publications on venipuncture, such as blood sampling best practices and prevention of needle stick injuries among healthcare workers. Local experts were also contacted to verify the items in the initial checklist. The initial tool developed from this review of literature consisted of 89 items and two scoring categories that evaluated the technical, communication, and professional skills of the student performing venepuncture. Through a review of three second-year anesthesiology registrars, two clinician anesthesiologists, and five nursing officers with over five years in clinical practice, the number of checklist items was reduced to 50. A scoring category termed 'performed incorrectly' was added to the initial checklist following the suggestions by this review. The second Delphi round resulted in the addition of two items and another scoring category termed 'not applicable.' This review removed 23 items from the checklist. Content and face validity was ensured through a detailed discussion with five physicians and five registered nursing officers. Finally, using the checklist, two physicians rated the venepuncture performance of 152 medical students on actual patients in the wards. The internal consistency of the checklist revealed Cronbach's α within 0.54 – 0.93. The checklist demonstrated a high level of interrater reliability with Kappa scores of 0.71. The final tool resulted in 30 items consisting of four scoring categories and evaluated the important technical steps in the venepuncture procedure.

Conclusion

This approach enabled the development of a valid and reliable tool to assess venipuncture performance. Developing a reliable and validated tool to assess venipuncture skills among health professions students will ensure uniformity of skills in the mobile healthcare workforce. Establishing an evidence-based standard for developing evaluation checklists will assist design of effective measurement tools and move the field of performance assessment in healthcare forward.

The Knife Life – Surgical Podcast for Undergraduate Medical Students

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Keywords

Surgical Podcast, Education Podcast, Medical School Education

Introduction

Podcasts are currently gaining traction in the education field as a promising medium for learners to attain new knowledge, known to be convenient and easily accessible regardless of physical location

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or time zone. Conventional teaching methods can be quite rigid as they rely heavily on visual learning, and previous studies have shown an added benefit to reinforcing learning through multiple mediums, highlighting the potential role that podcasts play in the medical education scene. In the field of General Surgery, there are existing podcasts, however, they are generally catered to more advanced learners such as residents preparing for their exit examinations. These podcasts, while informative, are a challenge for undergraduate medical students, who may not have the necessary depth and breadth of content knowledge to navigate them.

Method

“The Knife Life”, is a surgical podcast targeted at medical students which is freely available on Spotify, it provides high quality and relevant educational content which allows flexible, personalized learning that can cater to learners with differing schedules and learning speeds. Through the medium of a collaborative viva-style question and answer format, students draft answers to long case scenarios and our guest speakers, practicing doctors in the various surgical subspecialties, provide feedback on their clinical reasoning and answering techniques. Our podcast engages students to think critically, simultaneously providing direct feedback and tips which can be used in a clinical or long case setting, which in turn complements the content knowledge taught in the medical school curriculum. The podcast focuses on reviewing approaches and the management of some of the common conditions seen in the surgical wards, which prepares students for their clinical rotations and internships. It is also a good tool for revision, with a format similar to the MBBS long case examination. Additionally, at the beginning of each episode, our guest speakers also share more about their field of work, providing a primer into the different surgical subspecialties for students. It also aims to touch on challenging topics such as mental health, difficult conversations with patients as well as managing conflicts in the near future.

Results

While initially targeted at undergraduate medical students in Singapore, the episodes uploaded as a pilot study on Spotify managed to reach listeners from 44 different countries, with the top 5 countries being Singapore, Australia, Malaysia, United States and United Kingdom, and 95% of our listeners being from Singapore. As of August 2023, approximately a year after the upload of the first episode, there have been a total of 2,342 unique plays and 344 steady followers, with 70% of our listeners being aged between 18 to 27 years old.

Conclusion

While still considered a novel and unconventional approach, our pilot study has shown the potential role for podcasts targeted at medical students. The relatively low production cost and easy replicability makes it a sustainable medium for educational content creation. Educators can leverage on the platform as a medium to share the latest clinical advancements, and learners from all over the world can benefit from the content, anytime, anywhere.

Communication Between Nursing Staff and Patients in Timor-Leste

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Keywords

Communication Nursing, Timor-Leste, Technology artificial intelligence, Patient care primary health.

Introduction

Communication in the Timor-Leste healthcare system is nuanced by a multi-lingual population with extreme contrasts in health literacy levels and personal healthcare paradigms (traditional vs modern medical). Compounded by resource scarcity issues within the health facilities themselves, misunderstandings between nurses and patients are commonplace.

The integration of technology and artificial intelligence (AI) in the healthcare system in Timor-Leste is currently limited by an unstable power grid, emerging digital literacy of clinicians, lack of technical expertise, environmental impacts and systemic issues. Because of these unique challenges to healthcare in Timor-Leste, the role of nursing staff in delivering information and care to patients is an essential safeguard to health outcomes.

A review of nursing staff in two different health facilities was conducted, seeking to answer the question:

“Why do nurses in Timor-Leste sometimes exhibit hostile behaviors or use harsh words with their patients?”

Method

A qualitative paradigm was adopted for this review, using a mixture of focus group discussions and one-on-one interview methods. The focus group and interviews were facilitated by the researcher to explore open-ended questions via discussion. Thematic analysis of discussion content was conducted to draw outcomes of the review and inform recommendations.

Results

Anecdotal excerpts from the discussions suggest a raft of reasons for poor communication between nurses and patients. Samples include;

“Healthcare workers should use clear and friendly words when talking to patients, not to boss them around, but to make sure patients can help with their treatment.”

“Sometimes nurses and patients don't understand each other because of different reasons, some from the patients and some from the nurses.”

“Some patients don't know much, some don't want to help with their treatment, some don't appreciate the care and treatment they get, and some think they know better than the healthcare workers because they read things online.”

“Sometimes the nurses get upset when patients don't want to cooperate with their care or treatment, they must take care of a lot of patients, they work at night sometimes, and they can get frustrated when patients don't trust them because of things they read on social media.”

Thematic analysis of the discussion results revealed four main themes:

1. Training and education of nursing staff
2. The emerging impact of social media
3. Variance in health literacy
4. Nursing culture in Timor-Leste

Conclusion

Until Timor-Leste can integrate digital technology within its health care system and apply artificial intelligence to benefit patient care, face-to-face communication between nurses and patients will remain as a primary safeguard to health outcomes.

The review identified a need to improve communication between nurses and patients, via rapport development, so nursing staff can better understand their patients and vice-versa.

The review makes a strong recommendation for further research to expand the available literature on the topic and inform the clinical practice of nursing staff in Timor-Leste.

Monday 15th January 2024

1.30 pm – 3.00 pm

Virtual Room 4

Free Communication Session 6 - Assessment

Applying Borderline Methods for Standard Setting In OSCE

Hoa Thu Thi Doan, Viet Nam

Appreciation of AI-Generated Physiology Model Answers by Students and Teachers

Mahinda Kommalage, Sri Lanka

The Impact Of E-Portfolios on Medical Education; A Case Study of a Teaching Hospital in Hsinchu

Chien Hua Cheng, Taiwan

Enhancing Examination Assessment in Medical University: An AI-Powered Validation and Grading System Informed by Student and Examiner Feedback

Kseniya Mhitaryan, Kazakhstan

Artificial Intelligence to the Test: A Comparative Analysis of Large Language Models in Answering Multiple Choice Questions in Anatomy

Akhila Rakshitha Wimalasundera, Sri Lanka

Exploring Perspectives of Medical Faculty and Undergraduate Medical Students on ChatGPT in Medical Education

Mahwish Arooj, Pakistan

The Future of Student Feedback: Investigating AI's Potential to Complement Human Tutors in Tutorial Assignments

Chantha Jayawardena, Sri Lanka

Applying Borderline Methods for Standard Setting In OSCE

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Keywords

Borderline group, Standard setting, Passing score

Introduction

In competency assessment, the absolute method is often used, in which the Angoff method and borderline methods are actually used in medical schools. The borderline methods have become common for the OSCE, include borderline group method and borderline regression method.

In borderline methods, examiners mark checklist, and also rate the candidate's performance in global score such as 'pass', 'borderline' or 'fail'. In borderline group method, the cut-score can then be determined by calculating the mean or the median of the borderline group's checklist score. In

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borderline regression method, the cut-score is calculated using a linear regression equation between checklist score and global score.

In university of Medicine and Pharmacy at Hochiminh city, we often use a 50% of checklist score as a passing score. Therefore, the objective of this study is to apply borderline methods for setting standards in OSCE stations for second year medical students and to find out whether cut-off score of borderline methods significantly differ from the 50% of checklist score.

Method

The OSCE exam which consists of 5 stations was administered to 406 second year medical students in academic year 2022-2023. At each station the examiner rated 2 scores (by using a tablet): a checklist score and a global score according to 3 levels of fail, borderline, pass. Checklist score was converted to percentage correct 0-100%.

Passing score of each station was calculated by mean or median score of borderline group and a score that was derived from using a linear regression equation.

The borderline group's passing score were compared with the 50% of checklist score using the one-sample t-test.

Results

Passing scores resulted from the mean and median of the borderline group were similar and discrepancy between these two scores was only 0.1-1.6%. Passing scores from borderline group method in 5 stations were 68%-86.5%. There was a concordance between borderline group method and borderline regression method in cut-off scores, score discrepancy between the 2 methods was very small with 0-3.3% of checklist score. Borderline methods set higher standards than the 50% of checklist score (sig. 000).

Conclusion

The passing score from borderline methods were significantly higher than the usual 50% of checklist score. This study demonstrated that there was concordance in cut-score derived from borderline group method and borderline regression method. It's feasible to use the borderline methods as an appropriate standard setting methods for OSCE in second year medical students and should be considered to implement borderline methods for OSCE examinations in subsequent year medical students in our university.

Appreciation of AI-Generated Physiology Model Answers by Students and Teachers

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Keywords

Artificial intelligence (AI), AI-generated physiology, Model answers by students and teachers

Introduction

Newly developed content generation services such as ChatGPT and Google Bard use artificial intelligence (AI) to create content and present it in ordinary languages. University academics are

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concerned about AI-generated content since students might use it in their assignments and teachers may not detect it.

However, appreciation and acceptance of AI-generated content can vary depending on the expertise of the subject. Therefore, students and teachers may not appreciate this content equally.

The objective of the study is to compare students' and teachers' ratings on AI-generated model answers.

Method

Answers were generated for 12 CVS physiology questions with different Bloom's levels using ChatGPT. These 'model answers and the questionnaire were submitted online to students and teachers for rating without informing the source of the answers. Ten teachers with subject teaching experience over 10 years and 20 students who recently completed the physiology study program and scored the highest marks in previous continuous assessments were invited for the study.

The following data were collected for each model answer. Marks out of 100, grading six qualities using a Likert scale (1- 7 gradings from strongly disagree to strongly agree) and answers to two open-ended questions (Any specific error/s and any suggestion to improve the answer).

Results

Four teachers and 12 students responded to the questionnaire. Marks given by students (Range 100%-50%) are significantly higher (sig 0.001) than that of teachers (Range 90%-40%) for all answers (Mann-Whitney U test). As an extreme case, teachers gave 45 median marks for one answer while students gave 90 median marks for the same answer.

Median ratings from students and teachers for positive qualities of the answers ('Explanations are adequate', 'the creativity of the answer is good', 'the answer addressed correctly the context or background mentioned in the question') are correlate (0.331, $p < 0.05$, Spearman's correlation) while that of negative qualities of the answers ('Length of content/explanation of the answer is too long', 'content/explanations are to a layperson/not for the scientific or academic person', 'Wrong information is included') are not correlated. Student median ratings for positive qualities are significantly higher than that of teachers (sig $p < 0.001$) while ratings of negative qualities are not significantly different (Mann-Whitney U test).

Further, in rating of the quality of content or marks given by students or teachers, rating differences between students and teachers do not depend on Bloom's level of the questions.

The following themes were identified after a qualitative analysis of the answers to open-ended questions by students and teachers. Lack of diagram/drawing to support the answer, Lengthy answers with unnecessary content, missing key information and definitions, included wrong information, and lack of examples.

Conclusion

Lower mark allocation and lower ratings for certain good qualities suggest less appreciation of AI-generated content by teachers compared to the students. The quality of AI-generated content does not depend on Bloom's level of the questions.

The Impact of E-Portfolios on Medical Education: A Case Study of a Teaching Hospital in Hsinchu

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Keywords

E-portfolio, Medical education, Teaching platform

Introduction

With the development of electronic information technology, digital learning processes have been widely used in various teaching platforms. Through the programming and interface of information systems, courses can be implemented step by step, and teachers and learners can effectively manage and track teaching. In relation to the learning process, our college will implement e-Portfolio on January 1, 2022. Through this study, we will understand the usage and satisfaction of teachers and students in the college.

Method

This study focuses on the categories of new recruits in the hospital. The deadline for the screening plan form is from January 1, 2022 to June 30, 2023, and they are all completed forms. The form is signed based on the time and whether complete the task within the time required to understand the status of the digital learning process on project delivery information and other related management functions, and use a Likert scale to understand the satisfaction of students and teachers in various occupations for subsequent function development and management process references.

Results

This research category includes pharmacy, radiation, examination, nursing, respiratory therapy, occupational therapy, physical therapy, and speech therapy. Our hospital will start using a digital learning process to manage and save plan forms on January 1, 2022. There are 1.9 levels in the occupation form process. The average time from issuance to completion of the form is 9.8 days. For example, the average time from issuance to the first level is 4.3 days. The average completion rate of the form within the day it should be completed is 98.1%. Since its implementation one and a half years ago, the lowest level of satisfaction is 65.9% for the operation of the system, 80.2% for the ease of delivering various evaluation forms than paper, 80.4% for the efficient management of the learning (teaching) process, and 80.4% for the system's ability to the satisfaction rate for instant feedback messages was 81.2%, and the highest level of satisfaction for the system being easier to save the teaching process than paper was 85.2%. Men are more satisfied than women at all levels, and there is no significant difference in satisfaction with the system by age. Department administrators are 2.66 times more satisfied than teachers with effective management of the learning process.

Conclusion

Our hospital started to adopt the system about a year ago. It takes time for users to adapt to the conversion from paper to system, and the operation may not be familiar yet, which affects the user's satisfaction with the operation. However, in today's era of informationization and emphasis on independent learning, Users can understand the forms that should be completed and master the progress through the system, and can see the feedback content in real time. Using the system can reduce the manpower and space required to transfer and save teaching materials. In the future, our hospital will regularly monitor the needs of users, optimize the system interface to improve user satisfaction.

We thank the staff of Department of Medical Research, National Taiwan University Hsin-Chu Branch for their assistance in statistical analysis.

Enhancing Examination Assessment in Medical University: An AI-Powered Validation and Grading System Informed by Student and Examiner Feedback

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Keywords

Written assignments, Artificial intelligence, Electronic grading, AI aided feedback

Introduction

To meet the challenges of the modern world and our commitment to sustainability, our university is enhancing the exam evaluation system using artificial intelligence (AI). This paper presents an AI-based prototype to improve the validation of exam questions and grading of student answers in our medical university.

Method

Prior to 2019, exams were computer-based with multiple-choice questions. Since 2019, we introduced a written response format through the session.qmu.kz platform. This platform allows the upload of exam questions based on the subject outcomes in the format of "question-answer," problem-solving, and essays. Student responses are anonymously uploaded with unique IDs, and plagiarism checks are conducted to detect breaches of academic integrity. The examiner grades written responses using pre-loaded checklists quantitatively on a scale from 0 to 100 points. The examiner is also expected to provide written feedback for each paper. We surveyed student and examiners to explore the potential for AI introduction into validating exam questions and grading student responses.

Results

Examiner surveys revealed that 58% of examiners experienced challenges in handling the excessive quantity of exam papers, leading to templated feedback and student dissatisfaction. Survey results indicated that 35% of students were dissatisfied with templated feedback, with 15% requesting detailed responses during appeals. Teachers noted a significant number of identical errors in student responses, but time constraints hindered addressing common errors and improving exam materials. At the same time, 25% of students complained that similar errors in their responses were graded differently by different examiners. To address these issues, an AI-based decision support system was proposed. The AI should calculate grade reductions based on predefined criteria, with final assessments made jointly by examiners and the appeal commission, considering AI-generated comments. AI could also be used to identify and apply consistent reductions for identical errors, enhancing assessment objectivity. Moreover, AI could help in identification of challenging questions and detecting regular inconsistencies in student responses, leading to refined exam questions and higher-quality assessments.

Conclusion

The AI-based prototype, informed by student and examiner feedback, aligns with our commitment to excellence in education and fair evaluations. As we refine and expand this system, we anticipate further improvements in education and assessment quality at our medical university. The AI prototype

for validation and grading system is suggested by the students and teachers but is yet to be implemented.

Artificial Intelligence to the Test: A Comparative Analysis of Large Language Models in Answering Multiple Choice Questions in Anatomy

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Keywords

Artificial intelligence, Large language models, Medical education, Anatomy, Assessments, Quality evaluation, Question development

Introduction

In Sri Lanka, human anatomy is a core subject in the basic sciences stream in first two years of medical curriculum for medical undergraduates. Continuous assessments are employed at various stages throughout the medical curriculum, relying heavily on Multiple Choice Questions (MCQs) including multiple true/false questions (MTFs), single best answer questions (SBAs), and extended matching questions (EMQs). The development and review of these MCQs can be resource-intensive and time consuming. Recent advances in generative artificial intelligence (AI) offer potential solution by aiding in the creation and assessment of anatomy related questions.

This study evaluates two widely available large language models (LLMs), ChatGPT 3.5 and Google Bard AI, in addressing anatomy MCQs. These LLMs present a promising solution for question creation and evaluation. By assessing their performance in answering a diverse set of anatomy MCQ, this study addresses the need for innovative approaches in medical education assessment while considering resource limitations.

Method

A total of 135 anatomy – related MCQs were selected from the question bank developed by the Department of Anatomy, Faculty of Medicine, University of Moratuwa. These questions underwent rigorous revision by a panel of experts comprising experienced medical educators, clinicians and clinical anatomists ensuring the quality of the questions. Stratified random sampling was used to select questions, to ensure representativeness, considering factors such as question type (MTF, SBA, and EMQ) and system-based anatomical focus. This approach aimed to cover a broad spectrum of anatomy topics.

Results

Both ChatGPT 3.5 and Google bard AI demonstrated their ability to respond to all 135-anatomy related MCQs. Both LLMs furnished answers accompanied by brief explanations and no secondary prompting were required. Variations were observed in the accuracy of their responses across different question types. In MTF questions, ChatGPT correctly answered and obtained full marks in 28.84% (n=15/52) of MTF questions, while Google Bard correctly answered and obtained full marks in 13.46% (n=7/52). ChatGPT scored 0 marks for 9.61% (n=5/52) of MTF questions, while Google Bard scored 0 marks for 19.2% (n=10/52). In SBA, ChatGPT correctly answered 62.5% (n=25/40) of SBA while Google Bard answered 60% (24/40) correctly. In EMQ, ChatGPT correctly answered 62.26% (n=33/53) of EMQ questions, while Google Bard correctly answered 56.6% (n=30/53).

Conclusion

This study underscores the superior performance of ChatGPT 3.5, particularly excelling in MTF while both LLMs achieved similarly comparable results in SBA and EMQ. Both ChatGPT3.5 and Google Bard AI hold potential in streamlining the question development and student evaluation process. Yet, further rigorous research is vital to validate these findings. Exploring practical AI-driven solutions and optimization strategies for medical education remains critical. These outcomes emphasize the ongoing pursuit of AI enhancements to improve assessment and question generation process.

Exploring Perspectives of Medical Faculty and Undergraduate Medical Students on ChatgPT in Medical Education

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Keywords

Medical education AI, Undergrads, Artificial Intelligence, Professional, Education, Undergraduates

Introduction

There is considerable interest in the likely application of AI-based tools like ChatGPT in medical education, considering the rapid growth of AI technologies. However, there is limited research, notably in Pakistan, on the perspectives and experiences of educators and learners with ChatGPT.

The purpose of this study was to determine whether teachers and students at UCMD (the University College of Medicine and Dentistry) were aware of the potential advantages, perceived drawbacks, issues, and limitations of using ChatGPT in medical education.

Method

Focused group discussions with medical faculty and students who had varied levels of ChatGPT experience took place as part of a qualitative study. The main themes and sub-themes that emerged from the discussions were identified using a thematic analysis.

Results

Participants showed a thorough understanding of ChatGPT and its features. The two main aspects covered in this study were comprehension and perception of ChatGPT. The gathering and summarising of data as well as the work and time savings were among the recognized advantages. The probable lack of critical thinking in the facts laid out, the ambiguity of the references, the ability to access limitations, dependence on Chat GPT's output, and the ethical issues were among the primary reasons of concerns and restrictions.

Conclusion

This study offers significant details about how medical teachers and students view and interact with ChatGPT in medical education. Although Chat GPT's advantages were acknowledged, participants also expressed concerns and limitations that needed further study for its successful integration into medical education. This research ought to explore Chat GPT's effects on learning outcomes, student and faculty satisfaction, and the development of critical thinking skills.

The Future of Student Feedback: Investigating AI's Potential to Complement Human Tutors in Tutorial Assignments

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Keywords

Artificial intelligence, Assessments, Assignments, Feedback, Reflective Learning

Introduction

Artificial intelligence (AI) is a highly adaptable tool, showing great potential for various applications. Its use in education is becoming increasingly widespread, offering innovative solutions. Providing feedback on student assignments and tutorials is essential yet increasingly challenging for lecturers due to significant staff shortages and increasing numbers of students. In this context, employing AI to provide student feedback can be highly beneficial. However, its implementation must be approached carefully and well-adjusted to achieve the best results. This study aims to discuss the experiences of using an AI-based tool to provide feedback on tutorial questions compared to a human tutor.

Method

In this study, student answers to two questions in the field of basic tissues (histology) that were uploaded to the faculty's LMS (DentMoodle) as part of the routine teaching program were analyzed. The answers were evaluated in two ways: manually by a temporary lecturer (referred to as Human Tutor; HT) and by the AI-based tool ChatGPT-4 (referred to as AI Tutor; AIT). Both HT and AIT employed the same standard marking scheme, which a senior subject matter expert detailed. Dual types of feedback, together with marks, were disseminated to students through the LMS. Two days after this, during a face-to-face session, students were given the standard marking scheme for one question (No.1) and asked to compare the feedback and assessment results from AIT and HT against the standard answer. An online form was used to collect student opinions on the same day.

Results

There were responses from 107 and 87 students for questions 1 and 2, respectively. The data were not normally distributed; hence, the Wilcoxon test was used for comparisons. The total scores for question No.1 did not reveal a statistically significant difference between the two types of tutors. However, a significant difference was noted for question No.2. Furthermore, marks for some subcomponents of question No.1 showed significant differences. Approximately 57% of the students felt the accuracy of the grading by the AIT was above 70%. In contrast, 87.7% believed the HT's grading accuracy was above 70%.

Most students (43%) stated that feedback provided by both tutors is equally important for improving their future performance, while 26% found AIT is more helpful. Chi-square results indicated no significant differences in student perceptions of the usefulness for understanding their mistakes ($\chi^2=3.7$, $p > 0.05$), comprehending the feedback ($\chi^2=7.4$, $p > 0.05$), and promoting critical thinking and self-reflection ($\chi^2=2.78$, $p > 0.05$) between the two tutors. However, students perceived they were more comfortable with the HT ($\chi^2=9.01$, $p < 0.05$).

Conclusion

In comparison, students perceived differences in the accuracy of assessment marks between two tutors. The study highlights that no significant preference was detected among students for understanding mistakes, feedback comprehension, or fostering critical thinking and self-reflection

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when comparing AIT with HT. Nonetheless, students expressed greater comfort with HT. Although there are inaccuracies in assessment marks, AI can complement human tutors in providing feedback. Future studies are necessary to enhance the accuracy of AI in assessments.

Tuesday 16th January 2024

9.00 am – 10.30 am

Virtual Room 1

Free Communication Session 7 – Student Wellbeing and Humanities

LEARNing Needs and Outcomes of Family Medicine (FM) Residents in a Community Hospital Posting – The LEARNFM Exploratory Study

Wenjun Gabriel Gerard Yee, Singapore

Surgical Supervisor and Trainee Perceptions of the Effectiveness of Wellbeing Programs in Australian Hospitals

Belinda Balhatchet, Australia

Medical Students' Self-Perceptions of Harassment During Clinical Placement

Marcus A Henning, New Zealand

The Changing Characteristics of Doctor Role Model on Under-Graduate and Post-Graduate Medical Trainees' Perception and Effects on Professional Identity

Ren-Huei Fu, Taiwan

Influence of Colonization on Postgraduate Medical Training in Sri Lanka: An Exploration Based on Coloniality

Saroj Jayasinghe, Sri Lanka

Psychometric Properties of a Cognitive Aptitude Test Administered to First Year Medical Students of Two State Universities in Sri Lanka

Sanchayan Sivapalan, Sri Lanka

Stackable Online Microcredential Courses – Students' Perceptions and Way Forward for Pacific Small Island Countries

Jayantha Weerasinghe, Fiji

LEARNing Needs and Outcomes of Family Medicine (FM) Residents in a Community Hospital Posting – The LEARNFM Exploratory Study

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Keywords

Community Hospital, Curriculum, Qualitative, GapAnalysis

Introduction

In Singapore, Year 1 Family Medicine residents are posted to Bright Vision Community Hospital for a 1-month training module in Post-Acute and Long Term Care since July 2017 as part of a 3-year training programme, structured around 6 faculty-derived learning outcomes. Two years after module commencement, a review of learning outcomes, taking into account the feedback of 27 residents who

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completed it, was considered timely. Through such rigorous, learner-centred curriculum evaluation, the aim was to identify learning needs and curricular refinements to optimise residents' learning outcomes in the Community Hospital posting.

Method

Focus groups (n=3) with residents who had undergone the posting (n=19) took place. Applied Thematic Analysis was used, with each focus group being analysed for inclusion for discussion in subsequent ones. The whole data set underwent an integrated, overarching analysis to reach final conclusions.

Results

Four learning needs were identified: 1) Increasing Variation in Case Mix 2) Increased Duration of Posting, 3) Realistic Clinical Workload 4) Operationalising Educational Philosophy.

Key curricular refinements were: 1) the need for an extended Case Mix to facilitate acquisition of care planning skills and interprofessional collaborative practice with community partners; 2) moving posting to year 2 with longer duration to enable greater learner informed co-creation of learning plans for holistic care planning and career development; 3) incorporation of longitudinal support post-residency with reusable learning objects to enable transactional and transformative learning supporting workforce retention and capacity building within and beyond the community hospital.

Conclusion

The context of Family Medicine both globally and in Singapore is one of a challenging and dynamic healthcare landscape. This study highlights the importance of ongoing engagement with residents so as to understand their learning needs and thus ensure clinical training placements meets such challenges through the continual development of knowledge and skills.

Surgical Supervisor and Trainee Perceptions of the Effectiveness of Wellbeing Programs in Australian Hospitals

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Keywords

Surgery, Trainee, Burnout, Wellbeing, Supervisor

Introduction

Surgical trainees are at increased risk of burnout and poor wellbeing compared to the general population. Whilst many wellbeing programs have been reported, few have been evaluated from the perspective of those delivering and receiving surgical training. The aim of this study was to evaluate the effectiveness of trainee wellbeing programs in Australian hospitals from supervisors' and trainees' perspectives.

Method

A mixed-methods online survey was distributed to surgical trainees and supervisors across Australia. Participants were asked to identify trainee wellbeing programs at their hospital and provide details of the program, along with their views on their effectiveness in promoting wellbeing. Participants were

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also asked to identify one change that they would implement to improve trainee wellbeing, and any barriers to implementation. Demographic frequencies were calculated and qualitative data were analysed using an inductive-deductive process using the Job Demands-Resources Model as a scaffold.

Results

Sixty responses were received. Thirteen (22%) were aware of one or more trainee wellbeing programs at their hospital. Nine of those did not feel that the program was effective and three were unsure of its effectiveness. Workplace demands identified for prioritised targeting with future interventions included: (i) excessive working hours and workload; (ii) lack of support networks; (iii) demanding physical work environment; and (iv) demanding psychological work environment.

Conclusion

Few surgical supervisors and trainees report being aware of wellbeing programs in their hospitals, and programs that do exist are generally viewed as ineffective. Future interventions should target the most pervasive demands of surgical training including excessive working hours and workload, lack of support networks, and work environments that are physically and psychologically demanding. Collaborative development and active promotion of wellbeing resources with long-term support and funding may improve the effectiveness of interventions for surgical trainee wellbeing.

Medical Students' Self-Perceptions of Harassment During Clinical Placement

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Keywords

Medical students, Clinical placement, Harassment

Introduction

There is growing evidence indicating that harassment amongst medical students is a historical and prevailing issue. Exploring medical students' workplace experiences during clinical placement is crucial to ensure they are encountering safe and productive learning experiences. The aim of this conference presentation is to describe medical students' reported harassment experiences during their clinical placements.

The two research questions are:

1. What type of harassment experience, if any, did medical students encounter whilst on clinical placement?
2. Where there any differences in experience in terms of age, sex, ethnicity, or year of study?

Method

Medical students in Years 4 to 6 at a university in New Zealand were invited to participate in a survey gauging their workplace experiences. Data collection included demographic information, responses to the Generalized Workplace Harassment Questionnaire, and qualitative commentaries.

Results

Two hundred and five students completed the questionnaire (response rate=25%). Medical students reported experiencing an identifiable level of harassment (Likert scale scores > 2) in areas of verbal aggression, disrespect, isolation, exclusion, threats, bribes, and physical aggression. A series of multivariate analyses of variance (with measures disrespect, isolation or exclusion, physical

aggression, and verbal aggression) were conducted on the various sub-groups. The results indicated no significant differences for sex (Wilks' Lambda = .99, $F(3, 200) = .21$, $p = .85$), ethnicity (Wilks' Lambda = .92, $F(16, 602) = .99$, $p = .47$), and year of study (Wilks' Lambda = .98, $F(8, 398) = .58$, $p = .79$). However, a series of Pearson correlations determined that age was found to be strongly correlated with disrespect ($r(202) = .29$, $p < .001$), isolation/exclusion ($r(202) = .18$, $p = .01$), and verbal aggression ($r(202) = .18$, $p = .008$), although no significant correlation was found between age and physical aggression ($r(202) = .02$, $p = .81$).

Some students (7%) also reported concerning narratives regarding their experience of harassment.

Conclusion

Given that many medical students in this survey reported experiencing harassment during their clinical placements, it is crucial that further initiatives need to be designed to intervene and respond to this phenomenon. Two key areas identified by this group included the need to address power imbalances and to ensure channels for safe reporting.

The Changing Characteristics of Doctor Role Model on Under-Graduate and Post-Graduate Medical Trainees' Perception and Effects on Professional Identity

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Keywords

Doctor role model, Characteristics, Professional identity, UGY, PGY,

Introduction

Doctor role modeling has been highlighted as an important phenomenon in medical education. Its importance in professional development of learners has been illustrated by medical educators worldwide. However, the definition is at variance with how medical education research defines a role model. Different types of role model should have different effects on medical trainees. Our research aims to figure out the perceptions of medical trainees about their doctor role model, and the effects on their professional identity formation.

Method

There were 3 undergraduate grade 1, 5 grade 3, 45 grade 5, 3 grade 6 medical students (clerkship) and 8 post-graduate year 1 trainees participated in a single medical center at Taiwan for the qualitative aspect of study. Totally 15 focus groups interviews from each group with 3-5 trainees in each group were held. Concept and experience about doctor role model were discussed. Data were transcribed anonymized. Thematic analysis was applied to the data.

Results

There is not much difference about role model in the 1st and 3rd grade student groups. No clear role model is the major answers. Role models were identified by 5th grade UGY and PGY1 trainees through their clinical observation. Most of the trainees have several different role models. Trainees would recognize their role models by their characteristics. The positive role model characteristics include:

good attitude, good communication skill, empathy, teaching enthusiasm, recognizing trainees (as team members), profound knowledge, good competence, professionalism. Poor communication skill and no empathy were the only two negative role model characteristics mentioned.

Conclusion

Most of the medical students have their role models after they come to the hospital for clinical practice. They recognize their role models after witness their clinical performance and their role models changed along with different learning periods. Within various characteristics, most undergraduate trainees would focus on empathy and communication skill. Postgraduate trainees most frequently mentioned about clinical competency and skills. Role model and its effects in the early medical school year are not very clear. The identity transformation process is also vague. Since there could be different role models in different learning period, the characteristics of role models became important affecting factors to trainees' development. Recognizing what, when, and how to demonstrate these characteristics to trainees are crucial in medical education. Further research on the mechanism is required.

Influence of Colonization on Postgraduate Medical Training in Sri Lanka: An Exploration Based on Coloniality

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Keywords

Colonization, Coloniality, Postgraduate, Medical, Training, Sri Lanka

Introduction

Discrimination against those weak in English fluency (linguicism) and having dark skin (colorism) are well documented in the Sri Lankan health sector. Researchers have traced these prejudices to colonization and its white supremacist ideologies. The concept of coloniality (ie. continuing colonial structured of power) is employed to explain how colonization continues to shape current global health agendas and research. We apply coloniality to describe and explain current patterns of Sri Lankan postgraduate (PG) medical education.

Method

Official publications of the universities, the Postgraduate Institute of Medicine, historical records and secondary sources were used to describe the evolution of PG training from colonial times. It was a qualitative analysis of historical events. The main validity of the method was its explanatory power of the current situation of PG training.

Results

Origin of PG education in the colonial period were Anglocentric: The first medical school was established in Manipay by American Missionaries around 1847 which but stopped functioning after a period. In 1870 the colonial government helped to establish Colombo Medical School, basing the curriculum on the British models. However, doctors had to travel to UK to obtain postgraduate qualifications that were mandatory to gain consultant appointments. This pattern continued well after independence in 1948, even after the University in Colombo commenced a MD (Ceylon) in 1952. In 1970s, the government established a postgraduate institute and proposed local PG training for doctors. This was opposed by the trade unions of specialists and medical officers, stating that there

was no local capacity for PG training. However, a new PGIM formed in 1980 asserted priority for MD to obtain consultant appointments. "The Physicians of the Ceylon College of Physicians (CCP) protested vehemently at the time of the governmental pressure to start PG medical education locally in Sri Lanka and to break away from its long-standing relationship with the Royal College Physicians UK. Our Minister of Health at that time finally gave in to a formula where the MD Colombo would be setup at the PGIM and it would invite examiners from the Royal Colleges and also would include a mandatory one-year training in UK or other Centers of Excellence in UK" (CCP website). This practice of overseas training continues even to this day and the main destination for training continues to be the UK (eg. 64% [158/246] of total training slots in 2018). In 2017 the MRCP returned to Sri Lanka, and the annual academic conference of the CCP invariably has strong representation from the Royal Colleges.

Conclusion

Since its Anglocentric origins, PG training in Internal Medicine and its finer specialties continue to be strongly linked to the UK. This has enabled an external validation of our training programs by institutions recognised for their excellence in training such as the Royal College of Physicians. However, it may perpetuate subservience, stunt growth of local knowledge, and discourage the development of a truly international perspective of medical knowledge. The training programs in other disciplines too are likely mirror the evolution of Internal Medicine.

Psychometric Properties of a Cognitive Aptitude Test Administered to First Year Medical Students of Two State Universities in Sri Lanka

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Keywords

Medical school admission, Selection procedure, Selection, Admission criteria

Introduction

Sri Lanka uses academic performance at the Advanced Level examination (Z score) as the only criterion for admission to medical schools. As several countries use supplementary aptitude tests in the selection process, the appropriateness of the Sri Lankan approach has been challenged. Data on the utility of such tests in non-western settings such as Sri Lanka, however, is scarce.

Objectives

The objectives of the study are to evaluate the psychometric properties of an aptitude test administered to first-year medical students in Sri Lanka; to compare the performance of different demographic groups, and to determine the relationship between Z and aptitude test scores.

Method

The aptitude test contained 50 items under six subtests (abstract reasoning - 8, the human body - 8, quantitative reasoning - 8, decision making - 8, reading comprehension - 8, situational judgment - 10) and was developed by a panel of experts in medical education and psychology in the Faculty of Medicine, University of Kelaniya, emulating UKCAT. It was administered online in all three languages to first-year medical students shortly after their admission to two medical faculties in Sri Lanka

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(n=328). The reliability of the test was determined; the overall and subtest scores for different schools were computed; and the scores of different demographic groups were compared (using t test).

Results

The internal consistency of the test was 0.63, and the subtests ranged between 0.2 to 0.47. The difficulty and discrimination indices were within the acceptable range. The mean score of the aptitude test (AT) score was 70.9/100 (SD 8.88). The mean score for females was slightly higher than for males ($p=0.04$). No statistically significant differences in AT scores between different ethnicities or religions were observed. Z scores demonstrated a poor correlation with overall AT score ($r=0.27$); reading comprehension ($r=0.24$), the human body ($r=0.19$); quantitative reasoning ($r=0.18$) and situational judgement ($r=0.128$). The correlation of the Z score with other subtests was not significant.

Conclusion

The items of the Aptitude Test demonstrated moderate overall consistency. The internal structure of the subtest items, however, needs to be further examined. The test appeared to assess a significantly different aspect of cognitive skills compared to traditional Advance Level examinations. The predictive ability of the aptitude test in medical school performance needs to be explored in the future.

Stackable Online Microcredential Courses – Students' Perceptions and Way Forward for Pacific Small Island Countries

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Keywords

Microcredential, Oral health, Higher education

Introduction

Thirteen Pacific Island countries (PICs) namely, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Palau, PNG, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu have dental practitioners. There may be opportunities to build effective connectivity and training programmes among the oral health sectors for the benefit of the PICs. (Tatui et al., 2018).

Microcredentials can be considered as viable vehicles for rapid upskilling of the workforce in higher education in the twenty-first century. Fiji National University (FNU) in its Strategic Plan has proposed to develop, microcredentials and online programmes to support up-skilling, re-skilling, and enhanced productivity as part of a lifelong approach to education and training.

The objectives of this study were to assess student's perceptions towards a short course delivered online and explore the potential of offering academic programmes in stackable microcredential design.

Method

The School of Dentistry & Oral Health, College of Medicine, Nursing & Health Sciences at FNU plans a series of microcredentials which incorporate online teaching and assessment strategies for the dental practitioners to re-skill their competencies in the field of Oral Medicine and Oral Pathology. The first course OMOP1 of ten credit points (100 notional hours) was offered for four weeks in 2022 and 2023.

Listing for Free Communication Sessions

With the delivery of four other courses in the next two years, participants will be able to acquire Certificates of Attainment in these microcredentials totaling to 120 credit points at level 8. It may be possible then to credit transfer into a Postgraduate Diploma qualification to be developed at FNU.

Results

The short course OMOP1 has four learning outcomes in Oral Medicine and three in Oral Pathology. Learning platforms were FNU Moodle (elearn.fnu.ac.fj), Zoom webinars, other communications (Email, Viber, WhatsApp, Messenger) and a supportive Website OralMedNet.com.

Twenty-three (23) participants have completed the first offer in 2022: Fiji (16), Solomon Islands (1), Vanuatu (3), Tonga (2) and PNG (1). Frequent monitoring and engagement was maintained with weekly group emails, in-meeting quizzes and surveys on Zoom platform and prep and post surveys. Course completion rate was 95.8% with one dropout due to connectivity issues. Post-course survey revealed that majority of participants (70%) are above 30 yrs. Almost all are in the MOH sector of PICs. Majority (60%) joined from Fiji. Participants were satisfied with the first offer of this course. It is also aligned with 'CoI (Community of Inquiry) Framework'. These 'trained' dentists could play active roles in future tele-Oral Medicine programmes proposed to the PICs. (Polonowita et al., 2022).

Conclusion

This was the first microcredential course offered to dental practitioners in the PICs and results are promising and encouraging. Participants were able to complete the courses online without leaving their own locality at a reduced cost at a convenience of their own. We hope that introducing this novel concept of stackable microcredential leading towards a future degree qualification will help the health professionals in PICs.

Tuesday 16th January 2024

9.00 am – 10.30 am

Virtual Room 2

Free Communication Session 8 – Teaching and Learning

Team Based Learning Implemented in the New Six Year Medicine Curriculum at Karolinska Institutet

Matti Nikkola, Sweden

Nursing Curriculum Issues and Current Trends

Bayasgalanmunkh Baatar, Mongolia

"What We Really Lack is an Obstetric Bed": Results of a Learning Needs Assessment in Timor-Leste

Lois Hong, Timor-Leste

The Surgical Residency Training Needs in Mongolia

Gal-erdene Samdankhuu, Mongolia

The Evolution of Continuous Professional Development in Medicine in Sri Lanka: A Systematic Review

Hasitha Fernando, Sri Lanka

Problem-Based Learning in Undergraduate Medical Education in Resource Poor Settings: Scoping Review

R.M.M.K.Namal Rathnayaka, Sri Lanka

Suitability of ChatGPT as a Facilitation Tool for Self-Directed Learning Activities for Case-Based Learning in Clinical Microbiology

Vindya Perera, Sri Lanka

Team Based Learning Implemented in the New Six Year Medicine Curriculum at Karolinska Institutet

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Keywords

Team Based Learning, Medicine, Curriculum, Basic science

Introduction

KI launched a new six-year medicine curriculum in 2021. Based on current literature and theory, educators at KI agreed to center the new curriculum around Team Based Learning (TBL). TBL is an active, learner-centered pedagogical method based on peer learning, and a well-established, successfully employed learning method that provides opportunities to strengthen then professional

Listing for Free Communication Sessions

development platform of the Medicine curriculum. Previously, the curriculum was largely a lecture based traditional hybrid curriculum.

Method

TBL at KI is defined as a modular learning process where each module consists of a Preparation Phase, Readiness Assurance Tests (RAT), an application phase and Self Evaluation and Peer feedback phase. *Pointless TBL* was implemented; no points or credits are given for RAT: s or Application exercises, although some elements of TBL such as team discussions for team RAT: s or Application activities can be obligatory but not graded. Follow-up sessions RAT: s and Application exercises, typically optional, are organized in traditional lecture halls with a full class of 170-180 students. Faculty was trained in TBL first locally at the departmental level and later by the Learning and Teaching Unit. Implementation of TBL was monitored through examination results, course evaluations and course councils with student representatives.

Results

The first two years of the new curriculum have been implemented. Overall, implementation has been successful with high satisfaction for structure and organization. Peer learning is highly appreciated by students. Small group learning allows for intimacy and a low-stress environment conducive of discussions.

Conclusion

The Swedish introvert culture in large group settings can impact on discussions. Peer feedback and evaluations were perceived as sensitive, even difficult to perform, perhaps due to a consensus-seeking and conflict adverse culture. The challenge remains to ensure that *pointless TBL* continues to have a good cost-benefit ratio for the learners.

Nursing Curriculum Issues and Current Trends

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Keywords

Nursing education, Change, Teaching technology

Introduction

Following the development of society, the needs of citizens are constantly growing and changing, and new technological methods are also needed to provide services that meet these new needs. In modern times, higher education training should be a service aimed at creating conditions for self-development and the development of quality specialists. This topic was chosen because the teaching technology of the medical school is necessary to develop the curriculum in order to make the students not only acquire knowledge, but also have the ability to apply the acquired knowledge in a practical way, to have a creative spirit of teamwork, to develop knowledge, skills, and attitudes, and to train internationally recognized specialists. Assessing the current level and future development trends of the nursing curriculum of the Mongolian National University of Medical sciences.

Method

The study was conducted by using quantitative methods on cross-sectional descriptive method. The survey was taken from 60 teachers working in 2022-2023 the Medical School in Darkhan, MNUMS, and 40 teachers and staff participating in the nursing program were randomly selected. The study used a standardized questionnaire on Curriculum Development from Ronald M Harden and Jeniffer M Laidlaw's book Essential Skills for Medical Teachers. Within the framework of 5 groups, 1 group has 4 questions, with a total of 20 questions about the current situation and updates, and processing was done using the SPSS 25 program using Google Forms and paper surveys.

Results

1. Although the surveyed teachers assessed the current state of the nursing curriculum as fully transitioning to an outcome/competency-based education model, creative and evidence-based assessment of students, and increased student participation in practice-based learning, the program's future direction is in dire need of reform. defined.
2. The teachers who participated in the study have half-implemented the indicators such as cooperation with students in planning, implementing, and evaluating the curriculum, and it is necessary to update the above indicators. The indicators of more participation in reflection, discussion, and evaluation have been fully implemented and need to be further improved.

Conclusion

Nursing curriculum reforms are underway, but outcomes and competency-based curriculum reforms need to be reformed in terms of teaching technology.

"What We Really Lack is an Obstetric Bed": Results of a Learning Needs Assessment in Timor-Leste

Hong L

Management, Maluk Timor, Timor-Leste

Keywords

Health Professions Education, Primary Care, LMIC, In-service training, Continuing Professional Development, Essential Health Services, Quality in Primary Care, Enabling Environment, Curriculum Development, Needs Assessment

Introduction

Timor Leste has made significant progress in its health service since becoming a sovereign state in May 2002. However, ongoing education of healthcare providers is required to increase the quality of care and meet patient needs. Maluk Timor, in partnership with the National Institute of Public Health, Timor-Leste, sought to better understand the barriers and enablers to the provision of primary health care through conducting a Learning Needs Assessment (LNA). A previous needs assessment on quality conducted by the WHO in 2019 found that there was a need to increase workforce capacity and that many healthcare staff lacked basic clinical skills. This LNA sought to investigate the challenges faced by the healthcare staff and their perceived need for, and openness to training, in order to develop a tailored training curriculum that was both feasible and contextually appropriate.

Method

The study, carried out during March-April 2023, assessed perceived and unperceived training needs in 18 health centres across 3 municipalities: Dili (5), Oecusse (RAEOA) (6), and Ermera (7). A multi-stage needs assessment was conducted with frontline health workers from the Ministry of Health (n=147) in which we assessed knowledge, skills, attitudes, facility readiness, IT readiness, and prior experience of training and supervision. Descriptive statistics were calculated from the surveys and the qualitative data collected from interviews were thematically analyzed.

Results

The findings highlighted a general consensus among health professionals on the need for training, particularly in emergency care, however there was a prominent theme about the need for basic medical equipment and infrastructure. 67% of the health centres surveyed lacked reliable access to water, 64% of the centres lacked a functioning blood pressure machine and 29.9% of the staff had not received training in the preceding 2 years. Rural healthcare workers exhibited a heightened awareness of their learning needs, underlining the necessity for targeted interventions. Additionally, it was noted that almost all primary care health professionals surveyed possess smartphones but often face limited internet access.

Conclusion

This Learning Needs Assessment emphasized the importance of tailoring curriculum content, with a specific focus on emergency care training, to bridge the identified gaps. Moreover, enhancing IT readiness, along with addressing crucial manpower and equipment shortages, were recognized as vital steps toward strengthening the competence and efficiency of healthcare professionals in Timor-Leste. We identified existing methods of self-guided learning which can be leveraged for a cost-effective programme. These insights shaped the Integrated Primary Health Care (CPD-IPHC) Curriculum for Timor-Leste. The final product, a 2400-hour blended curriculum, outlines comprehensive basic in-service training for a more effective and responsive primary healthcare system in Timor-Leste.

The Surgical Residency Training Needs in Mongolia

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Keywords

Postgraduate training, Surgeon, System dynamics

Introduction

Post graduate education planning is a multifaceted concept that encompasses both internal and external factors of an organization while maintaining a comprehensive strategic approach. In recent years, there has been a growing interest in developing system dynamic models for analyzing complex issues in the health sector. This study did an estimation for the next decade concerning problems in human resource planning in the health sector of Mongolia and developed a planning model using system dynamics. Due to the wide scope and structure of the health care provider, this study only estimated the needs of surgeons.

Listing for Free Communication Sessions

Aim: Estimate the need of surgeons required to work for general surgeon providers by 2030 based on Mongolia's population, morbidity and current human resources.

Method

We obtained data on the number of residency training surgeon conducted from 2014-2020. The causal loop diagram of health care human resources model in Mongolia is described. There is a total of 5 causal links, 3 of which are positive causal links and 2 of which are negative causal links. Resource and flow diagram show input, output, accumulation or gain of resources. The main goal of the model is to calculate the future demand of physicians and surgeons in two scenarios: The total number of physicians and surgeons and the number of necessary physicians and surgeons. The total number of medical doctors and surgeons is the calculation of the number of future medical doctors and surgeons based on the "Current Workforce" sub-model and the "Medical Education" sub-model.

Results

A surgical morbidity study shows that a total of 177850 people received healthcare services in a capital city in 2020. By 2030, 268808 people are expected to receive medical care at the capital city's surgical field of hospital. On the other hand, in 2020, a total of 56552 people received medical services at countryside hospitals and an estimation shows that a total of 76318 people will receive health care from countryside hospitals.

First, the calculation based on the data of current working physicians, students majoring in surgeons and new graduates of medical school shows:

1. By 2030, 277 surgeons are expected to work in the capital city hospitals.
2. By 2030, 109 surgeons are expected to work in the countryside hospitals.

Second, the number of needed surgeons required based on population growth, and morbidity rates have been modeled.

1. By 2030, there will be a need for 375 surgeons in the capital city hospital.
2. By 2030, there will be a need for 141 surgeons in the countryside hospitals.

Conclusion

The shortage of health workers is observed in the capital city and rural areas. The introduction of various strategies and incentives is required to attract health workers to these areas. Future enrolment in post graduate training will have to be increased.

The Evolution of Continuous Professional Development in Medicine in Sri Lanka: A Systematic Review

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Keywords

Continuous professional development, Medical education, Evolving trends, Digital technology, E-learning

Introduction

Continuous professional development in the medical sector of Sri Lanka has experienced a paradigm shift lately. The advent of the COVID-19 pandemic introduced the country to new modalities of

information delivery and knowledge dissemination. In this context the national continuous professional development framework has been reinitiated for the benefit of medical professional's island wide. The objective of this study is to detail the evolution of continuous professional development to where it stands at present.

Method

The literature search was conducted using electronic databases including PubMed, Google Scholar and ERIC. The keywords "continuous professional development," "Sri Lanka," and "medical education" were used. In addition, official documents we have access to, as well as local literature was searched utilizing the aforementioned keywords to maximize search results.

Results

A total of five-hundred and ten articles were initially identified through database searching and 54 records were chosen through screening. Of the aforementioned 23 full-text articles were ultimately utilized for this systematic review. The literature suggested that despite the numerous setbacks the national continuous professional development framework has currently reached a satisfactory implementation level, with the initiation of an island-wide pilot project due to take place in the near future. Multiple research studies showed that medical professionals were satisfied with the flexibility, convenience, time-efficiency, cost-effectiveness, and ease of access to information provided by web-based continuous professional development initiatives. However, the main challenge of adopting e-learning methodologies in the Sri Lankan context was its inadequately developed digital infrastructure. Reasons for non-attendance in continuous professional development activities in the past were due to lack of financial incentives, absence of a proper continuous professional development infrastructure, remoteness of doctors from main educational centers, the overall lack of time for commitment and continuous professional development being non-compulsory by law for re-validation.

Conclusion

The national continuous professional development framework has undergone a tremendous evolution the past few years and e-learning platforms, which gained widespread popularity during the COVID-19 pandemic era, will play an instrumental role in operationalizing the initiative going forward.

Problem-Based Learning in Undergraduate Medical Education in Resource Poor Settings: Scoping Review

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Keywords

Problem-based learning, Undergraduate medical education, Resource poor settings, Sri Lanka

Introduction

Problem-based learning (PBL) is one of pedagogical strategies in tertiary education worldwide. It is a method of learner-centered education and students learn about a subject through the experience of solving a problem found in trigger material. In newly emerging medical faculties in Sri Lanka, there is a lack of human and physical resources for which data on implementation of PBL appears to be

inadequate. The aim of this review was to describe the use of PBL in medical undergraduates in resource poor settings.

Method

This scoping review was conducted using electronic databases including PubMed, ERIC and Web of Science using the keywords “problem-based learning”, “undergraduate medical education” and “resource poor settings”. Arksey and O'Malley framework was applied to undertake the review and only English papers were included published from 1995 to 2023.

Results

Fifty-one records were identified through database searching from which 32 publications were screened. Out of 24 full-text articles selected for eligibility assessment, 13 full-text articles were included to the final analysis. These included 5 literature reviews, 2 multi-center studies and 6 single-center experiences. PBL were preferred for the long-term retention of course content whereas traditional approaches were favoured for short-term retention. PBL scenarios required teams of educational and subject experts, staff training, and expensive writing time. PBL improved students' all abilities measured. Critical thinking was positively associated with problem-solving and self-directed learning.

Conclusion

PBL is an effective and satisfactory methodology for undergraduate medical education. It broadens student metacognitive competencies and foster skills relevant to medical problems and research. Further, a PBL curriculum can be successfully implemented in resource-constrained settings. But it needs greater human resources and continuous training for its implementation. Future studies are needed to explore the implementation of PBL in undergraduate medical education in resource poor settings.

Suitability of ChatGPT as a Facilitation Tool for Self-Directed Learning Activities for Case-Based Learning in Clinical Microbiology

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Keywords

ChatGPT, Self-directed learning, Microbiology, Case base scenarios, Accuracy, Completeness

Introduction

Self-directed learning (SDL) is an integral part of medical education that enables medical students to acquire skills of lifelong learning in the continuously evolving medical education practices. Although there are systematic ways to develop SDL in students inside the classroom, using tools such as case-based learning with assistance provided by the facilitator, students have raised their concerns on SDL occurring outside the classroom due to lack of support by teachers. The aim of this study is to evaluate the suitability of ChatGPT to provide correct and adequate responses for questions developed from case base scenarios in clinical microbiology so that students can use ChatGPT as a facilitation tool for SDL that occur outside the classroom.

Method

Thirty-seven case base scenarios with 171 open ended questions, validated by two microbiologists, based on the intended learning outcomes of the course and to target higher order levels of Blooms taxonomy, to be used for SDL were selected. The questions were used to obtain answers from ChatGPT by the two microbiologists and scored independently using pre-validated Likert scale: 6-point Likert scale for accuracy (range 1 – completely incorrect to 6 – completely correct) and 3-point Likert scale for completeness (range 1– incomplete to 3 -complete plus additional context). Mean scores were summarized with descriptive statistics. Correlation between accuracy and completeness were analysed by Spearman rank correlation coefficient.

Results

There was no significant difference in the scores given by the two microbiologists ($p < 0.01$). Of the 171 ChatGPT-generated answers, the median accuracy score was 6 (mean 4.7, SD 1.7), and the median completeness score was 3 (mean 2.4, SD 0.8). 52% ($n = 89$) were scored as completely correct [accuracy score (AS) of 6] and 18% ($n = 30$) were scored as nearly all correct (AS of 5). 11% ($n = 18$) of answers were scored as completely incorrect (AS of 1) and 2% ($n = 3$) were scored as answers in which more parts were inaccurate. Of these inaccurate answers, 81% (17/21) were for the questions that related to prevalent and endemic infections in Sri Lanka and the tropics. Answers that scored as both correct and incorrect equally were 11%. Regarding the completeness of answers 57% ($n = 97$) scored as comprehensive [completeness score (CS) of 3], 25% ($n = 43$) scored as adequate (CS of 2). 18% ($n = 31$) scored as incomplete (CS of 1). Of these 87% (27/31) were for the prevalent and endemic infections in the country. Accuracy and completeness of the answers were significantly correlated (Spearman's $r = 0.8$, $p < 0.01$) across all questions.

Conclusion

Majority of the answers (>50%) generated by ChatGPT were correct and comprehensive. However, limitations were observed for the questions pertaining to prevalent and endemic infections in the country. Therefore, the reliability of ChatGPT to provide correct and complete responses for the higher order questions developed from case base scenarios and its usefulness as a facilitation tool for SDL maybe limited. However, with guidance from teachers to overcome these limitations, ChatGPT will become a useful tool for out of classroom SDL.

Listing for Free Communication Sessions

Tuesday 16th January 2024

9.00 am – 10.30 am

Virtual Room 3

Free Communication Session 9 (Young Scholar) – Innovative Practices and Simulation

QR Code-Enabled Pathology Museum – Students' Response to Innovative Practice in Medical Education

Mayank Kumar, India

Knowledge and Perceptions of Final-Year Medical Students Regarding Artificial Intelligence in Medical Education: A Sri Lankan Perspective

Bhanu Wijetilake, Sri Lanka

Exploration Of Student Adaptation in Blended Learning in Clinical Stage Medical Education During the Covid-19 Pandemic

Annisa Bunga Nafara, Indonesia

"Enhancing Histopathology Education Through Generative Artificial Intelligence: Utilizing Synthetic Whole Slide Images for Improved Student Engagement

Upeka Vianthi Somaratne, Sri Lanka

A Toolkit to Facilitate the Trainers of the Health Professional Pre-Service Education and Training Program on Conversion of Lessons to e-Learning Content

Nilani Dharmarathne, Sri Lanka

Innovating Teaching, Learning, and Effective Feedback Practices: A Student-Educator Partnership Approach

Mei Li Khong, Hong Kong S.A.R.

QR Code-Enabled Pathology Museum – Students' Response to Innovative Practice in Medical Education

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Keywords

Innovation, Medical education, Museum, Pathology, QR code

Introduction

The students of the present generation are compulsive users of mobile technology. The smartphone has become an inseparable part of the everyone's lives and, in today's technologically advanced age, plays an important role in day-to-day routine activities.

Listing for Free Communication Sessions

It is necessary to incorporate this advancement in technology in medical education in order to stay abreast of current times, to strike a chord with the present generation of medical students, and to impart knowledge to students in a manner that is suited to them.

Quick response (QR) code is a 2D barcode system that is being used in various fields throughout the world. The use of QR system in the medical field has been increasing over time. Its ease of use, adaptability in various situations, and availability without any subscription charges favour its innovative applications in the medical field.

The main objective of the study was to analyse the response of medical students to use of QR-based teaching method.

Method

The gross wet-mounted specimens in the departmental museum at the Department of Pathology, Rajarshi Dashrath Autonomous State Medical College, Ayodhya, India were labelled with specific QR codes at the corner of glass jars. These specimens were used in routine teaching imparted to second phase medical students in form of practical sessions, demonstrations, and discussions.

The utility of this system with the response of students was evaluated by collection of feedback in the form of a predesigned questionnaire that was distributed online using the Google Forms platform. The questionnaire comprised of eight statements that covered varied aspects, like accuracy of the system, usability, correlation, self-learning, and revision of the topics. This part of the questionnaire was based on a 5-point Likert scale. Additionally, two dichotomous questions with Yes or No options, and three open-ended questions were included.

Results

The majority of the students used the in-built camera application for scanning the QR codes, and they utilized the facility for more than half of the specimens in the museum. All of the students responded that the specific QR codes were accurate and majority of them (98%) either strongly agreed or agreed that it was easy to use the system and access the details about the specimen. Almost all of the students (95%) agreed that they were able to correlate the description with the specimen, and 82% of the students felt QR codes motivated them to study more in depth about the topic. Also, more than half of the students agreed that this system was useful for revision and facilitated independent learning.

Conclusion

The findings of this study suggest that the facility of specific QR codes on wet-mounted specimens as an innovative practice in medical education is a very effective tool for learning. It also provides a novel opportunity to excite and engage students in a manner that is relevant to the present generation.

Knowledge and Perceptions of Final-Year Medical Students Regarding Artificial Intelligence in Medical Education: A Sri Lankan Perspective

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Keywords

Artificial Intelligence, Medical Education, Medical students, Undergraduate

Introduction

The integration of artificial intelligence (AI) into medicine is transforming healthcare, demanding future physicians to acquire AI-related competencies. This study explores awareness, attitudes, and education experiences of final-year medical students towards AI, alongside potential gender and specialization disparities in AI perceptions.

Method

A comprehensive online questionnaire with 32 questions was distributed among 150 final-year medical students at Sri Jayawardenepura University, Sri Lanka, from May to August 2023. Of the targeted participants, 110 responded, forming the basis for this study. The survey gauged knowledge, perceptions of AI's medical role, exposure to AI education, perceived AI learning necessity, and barriers to AI integration into curricula. Responses employed a Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Results

Among the respondents, the mean age was 26.76 years (age range: 24-29), with 59.1% (n=65) being female. The majority 91.8% (n=101) were aware of AI's current use in medicine. Additionally, 78.2% (n=86) believed AI would enhance healthcare, with 74.5% (n=82) envisioning its wide adoption. Although 52.7% (n=58) disagreed that AI could replace physicians, 74.6% (n=82) acknowledged the need to understand AI for their careers.

Paradoxically, despite high awareness, 83.6% (n=92) lacked formal AI education, and 60.9% (n=67) considered existing AI learning opportunities insufficient. Nonetheless, 69.1% (n=76) expressed a desire for in-depth AI knowledge, and 63.6% (n=69) advocated for AI integration into the curriculum. Statistical analysis further revealed a link between preference for choosing surgery as a specialty and incorporating AI into their future practice ($p < 0.05$).

Further analysis uncovered that a statistically significant gender-based pattern was present: more female participants (n=59) felt that their knowledge and future uses of AI related to the field of medicine could be improved ($p < 0.05$) and showed a preference for gaining additional information through formal workshops and conferences due to potential limited exposure, highlighting a gender gap in AI education.

Conclusion

AI's integration into medical practice underscores the urgency of adapting medical education accordingly. Even though the majority recognizes the opportunities AI brings to medicine, there is a substantial lack of education opportunities to learn about AI in medicine in Sri Lanka. There is a correlation between interest in future surgical specialization and interest in incorporating AI in their medical practice. Addressing gender-based disparities in AI education is vital for ensuring equal opportunities and closing knowledge gaps is crucial for equipping medical professionals to navigate the AI-driven healthcare landscape. Taking these findings into consideration we recommend the inclusion of AI in formal medical curriculum.

Exploration Of Student Adaptation in Blended Learning in Clinical Stage Medical Education During the Covid-19 Pandemic

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Keywords

Adaptation, Blended learning, Clinical learning, Medical student, Pandemic

Introduction

Clinical learning in medical education experienced a drastic change due to the COVID-19 pandemic, including the transition from traditional to online and blended learning model. This condition results the loss and reduction of student's clinical skills experience. Students and educators must adapt instantly without available guideline and appropriate sources. Adaptation process became challenging and crucial to determine the success of clinical education. The aim of this study is to explore student adaptation in blended learning in clinical stage medical education during COVID-19 pandemic.

Method

This study used a qualitative phenomenology design. Data was collected through focus group discussions with 33 students divided into 4 sessions. Collected data were transcribed and analyzed using thematic analysis methods. Triangulation and member checking were used to ensure trustworthiness.

Results

We identified 9 themes and subthemes in 3 categories in the study. First category is changes in clinical learning during pandemic, includes changes in education system, student's emotional reactions and obstacles. Second category is medical student perception about blended learning during pandemic, includes benefits and burdens. Lastly is student adaptation in clinical education during pandemic, includes student adaptation towards pandemic situation and towards blended learning, factors influencing student adaptation and student expectations.

Conclusion

Students adapted in blended learning by preventing COVID-19 infection, preparing IT, learning innovation and time adjustment. Overall, blended learning was considered beneficial in terms of accessibility, effectivity, flexibility, and self-improvement opportunity, while challenges such as teaching clinical skills, less clinical exposure, inappropriate schedule, technical problem, communication barriers, inconducive learning environment and complicated examination procedures need to be addressed. There are internal and external factors that influence student success in blended learning.

"Enhancing Histopathology Education Through Generative Artificial Intelligence: Utilizing Synthetic Whole Slide Images for Improved Student Engagement

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Keywords

Generative AI, Whole Slide Images, Medical Education

Introduction

Histopathology as a subject in undergraduate curriculum aims to give a student essential knowledge and skills for clinical practice. Medical students are traditionally taught histopathology using Conventional Light Microscopy (CLM) in conjunction with text books. Students learning how to identify pathological conditions have access to a limited number of samples and examples from the textbooks. Therefore, students would not get access to a variety of abnormal samples to learn and observe.

Whole slide imaging (WSI) is a process of generating a digitized version of the entire histological glass slide. However, availability of real-world WSI which have learnable abnormalities is minimal. Samples with traits that identify rare pathologies are scarce. Through the use of generative AI, it is possible to create synthetic WSI samples. Abnormal WSIs can be created using Generative Adversarial Network (GAN) using the limited WSIs available and generate various synthetic samples with abnormalities. GANs are capable of using a small sample set of abnormal WSIs to create different WSI samples which carry the abnormal traits from the original WSIs. These would allow the students to access and learn different abnormalities.

Method

An electronic literature search was performed to identify articles published from 2000 onwards. Online platforms such as google scholar, pubmed and biomed central were used. Keywords used included WSI, medical education and virtual microscopy. Inclusion criteria were based on the application of WSIs and synthetic WSIs in medical school curriculum. A qualitative analysis was carried out.

Results

The systematic analysis showed that synthetic WSIs can be used simultaneously by a large number of people, stimulating cooperation between students and improving the interaction with the teachers. It facilitates making annotations on specific fields, which enable specific directed questions to the teacher. It allows remote access anywhere and from any device & can be simultaneously used by an unlimited number of people.

Conclusion

The ability to create a multitude of cases of each organ or pathology increases a student's exposure. Thus, a student would be more likely to be competent in recognizing slides based on histological characteristics rather than remembering the slide's other features. This ensures optimal learning and evaluation owing to the higher number of cases available to be used. Thus, in conclusion exposure to different types of WSIs to the student can give the students an all-rounded experience with abnormal WSI. This exposure would support the students in the future to identify abnormalities in WSIs with ease.

A Toolkit to Facilitate the Trainers of the Health Professional Pre-Service Education and Training Program on Conversion of Lessons to e-Learning Content

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Keywords

Trainer support, eLearning conversion, Toolkit

Introduction

The health professional pre-service education and training program is conducted under the technical guidance of Education, Training & Research unit (ET&R) of the Ministry of Health – Sri Lanka. ET&R is the focal point of training for the health professionals in Sri Lanka other than doctors and dental surgeons. Delivery of educational sessions through eLearning Management System (ELMS) was launched for the program with the increased necessity emerged with the COVID-19 pandemic. The trainers of this program are not fully geared for eLearning and they need assistance in developing their e-lessons.

Method

The objective of this study was to develop a standardized and contextualized toolkit to support the trainers in converting the training contents to appropriate electronic format. This was a qualitative study carried out in training schools functioning under the ET&R.

This study was conducted in three phases;

1. Systematic search and review to study tools used to convert dry content to eLearning content,
2. Nominal group discussion with experts in medical education to select applicable tools,
3. Focus group discussion with trainers attached to health professional pre-service education and training program to contextualize the tools to meet the requirements.

Results

Extensive search through academic databases; Google Scholar, PubMed, IEEE Xplore and Science Direct did not yield studies on toolkits that support in converting the training contents to appropriate electronic format. Tool by tool search through web, yielded the storyboard tool for planning Narrated PowerPoint. All the other tools were drafted using web sources and activities in Moodle platform. Narrated PowerPoint, Discussion Forum, Chat, Webinar, Assignment, Quiz, Video and Page were the eight tools, agreed to be included in the toolkit. Those were contextualized to conform the requirements of the trainers and developed into a toolkit.

Conclusion

It is an unattended global need to develop standard toolkits to facilitate conversion of educational materials to eLearning contents. ELMS of ET&R is a timely taken step to continue the education and training through the period of COVID-19 pandemic. Because of its versatility trainers continue to use it even after recommencement of schools. A previous study showed that the best use of all the tools in ELMS is not being taken. This toolkit will act as a standardized and contextualized toolkit, that facilitate the trainers to convert existing lessons, into eLearning contents and to help the trainers to get a satisfactory use of ELMS.

Innovating Teaching, Learning, and Effective Feedback Practices: A Student-Educator Partnership Approach

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Keywords

Student-educator partnership, Feedback, Active learning, Adaptive learning, Students as partners, Personalised learning, Online modules

Introduction

Feedback enhances student learning but it is difficult to effectively manage in higher education. Feedback processes should involve appropriate tools to facilitate communication of learning feedback, and well-designed assessment sequences to promote student uptake of feedback. It has also become evident that feedback processes require a partnership between educators and students. Therefore, we aim to develop and evaluate teaching and learning (T&L) approaches that integrate effective feedback. All these are done through a collaborative, reciprocal process where students and educators contribute equally to pedagogical conceptualisation, development, implementation, investigation, and analysis.

Method

In the development phase, student co-designers were involved in co-creating solutions to the issues of poor feedback practices, alongside educators. A design thinking approach was employed.

For evaluation, quantitative and qualitative data were collected from student learners through pre- and post-knowledge tests, as well as written reflections and semi-structured interviews on learning effectiveness and processes. Data was analysed and triangulated to form an understanding of effective feedback practices in T&L. Three large-class case studies of teaching, learning and feedback innovation serve as focal points for discussion.

Results

Active learning workshops are in-person sessions adopting active learning strategies such as visual mapping. Students are guided step-by-step to complete the mapping through progressive questioning and feedback by teachers. Pre- and post-knowledge tests indicated a significant improvement in application of knowledge after the sessions ($P \leq 0.05$). Interviews with student learners affirmed that constructing visualisation alongside step-by-step feedback enabled consolidation and integration of concepts taught within a system block, as well as clarified misconceptions.

Self-paced, clinical interactive worksheets present a clinical vignette and guide students through a process of delineating signs/symptoms, differential diagnosis, key investigation steps and findings, overall diagnosis, and immediate management. In each step, a student is prompted with questions, and provided immediate and elaborate feedback for every answer option. Feedback from each preceding question aims to help students understand subsequent questions. Our study indicated that the automated, step-by-step and comprehensive feedback guided students' thought processes, trained students to adopt a systematic approach to clinical investigation, and deepened conceptual understanding.

Self-paced, adaptive learning modules are online narratives that bring students through a personalised learning pathway. A student is presented with a narrative and makes decisions from a list of options in specified situations. After the student decides, they are presented with the consequences of their choice, feedback on underlying principles/concepts, and the ensuing situation. This process repeats itself throughout the narrative as students are prompted through the automated system to think about the principles underlying each decision made. Student learners indicated that this automated and personalised feedback approach simulated real-life ethical/clinical dilemmas and created a safe space for exploring decisions and their consequences. The feedback prompts developed a thoughtful consolidation of relevant principles behind every decision.

Conclusion

Student-educator partnership has enabled practices that are oriented to students' needs for effective feedback. The innovation of T&L approaches integrated the following effective feedback strategies – step-by-step approach that leads to systematic learning, comprehensive explanations that deepens conceptual understanding, and immediate/automated support that enabled just-in-time and/or personalised learning.

Listing for Free Communication Sessions

Tuesday 16th January 2024

9.00 am – 10.30 am

Virtual Room 4

Free Communication Session 10 (Young Scholar) – Innovative Practices and Simulation

A Review on Artificial Intelligence (AI) Use in Medical Education – A Blessing or Menace in Disguise?

Ranija Rithnal Abeyasinghe, Sri Lanka

Artificial Intelligence Predicts Students' Exam Performance with High Sensitivity Allowing Personalized Interventions

Supun Manathunga, Sri Lanka

Integrating Knowledge on Artificial Intelligence into Undergraduate Medical Education in Sri Lanka: Insights, Challenges, and the Way Forward

Kumuthu Premalal, Sri Lanka

Meaningful Student Engagement in Accreditation and Quality Assurance

Kenneth Tsz Chun Lam, Hong Kong S.A.R.

Innovation of a Medical Educational Simulator on Human Arterial Pulse Characters

Ishan Ramanayake, Sri Lanka

The Mixed Reality Application on Medical Education - Taking Cardiovascular Anatomy as an Example

Yung Shiou Chiou, Taiwan

The Use of 3D Printing in Teaching Musculoskeletal Oncology for Undergraduates

Qinxiang Shant Sin, Singapore

A Review on Artificial Intelligence (AI) Use in Medical Education – A Blessing or Menace in Disguise?

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Keywords

Artificial Intelligence, Medical Education, Simulation-based medical education

Introduction

Recent developments in artificial intelligence (AI) and machine learning have facilitated a variety of developments in healthcare and have the potential to revolutionise how the next generation of doctors are being moulded. The purpose of this review was to analyse the recent literature on the application of AI in medical education.

Method

A comprehensive analysis was conducted on PubMed, Web of Science, Scopus and Google Scholar on use of AI in medical education from 2019-2023.

Results

The application of digital tools in teaching has been gradually making its way into education and COVID compelled every sector to adapt to these changes in different capacities. Here we discuss some advances made in medical education using AI based tools.

Simulation-based medical education (SBME) has been a widely discussed topic in skill training in various clinical specialities, with promising results. This allows the students to be exposed to different clinical conditions as they would have experienced in the clinical setting. This allows younger medical students to be exposed to the world of clinical medicine. Multiple studies have shown this to be rather an effective method compared to clinical books. Although AI may never be able to replace the patient experience, it may serve as a valuable tool in sharpening clinical skills, which can also provide valuable feedback for constant improvements.

Comparably, positive feedback was obtained from students when AI tools were utilised to teach anatomy, which easily allows imaging structures in a three-dimensional environment. Postgraduate trainees in radiology have sharpened their diagnostic skills with AI-assisted tools were shown to perform better than other trainees.

Surgical residents who were trained in advanced laparoscopic and robotic surgeries had been trained on AI-driven models to refine their surgical techniques had fewer complications. Obstetricians utilize AI-driven tools in assessing mothers with high risk of pre-eclampsia, chances of successful vaginal delivery and in identifying fetuses with abnormalities.

AI-driven tools have also been used successfully in performance evaluations, which is an integral part of continuous medical education. Emergency training and disaster management are other areas benefited from AI-assisted tools.

Adapting to these changes, certain medical colleges in the UK now offer training in computer sciences for medical students as an additional subject, which has obtained excellent feedback from students. It's the role of medical educationists that the curriculum be updated according to these developments, to prepare our students for the future.

Given the novelty, the use of AI in large-scale teaching is still a costly process, especially for developing countries. For students and even for certain teachers, it may be a challenge to learn these new technologies. This may increase the disparity between students from different economic backgrounds, which need to be kept in mind as we step into an exciting era of AI.

Conclusion

AI has a significant potential to transform clinical practice and will become necessary for medical educators to integrate these into the undergraduate curriculum.

Artificial Intelligence Predicts Students' Exam Performance with High Sensitivity Allowing Personalized Interventions

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Keywords

Medical education, Personalized interventions, Results prediction

Introduction

In the realm of medical education, evaluating student performance is crucial for refining teaching strategies and identifying areas of improvement. This study explores the potential of using exam scores to predict future academic outcomes. By employing statistical methods and machine learning, we investigate how scores from different exams interrelate and influence student progress.

Method

The study was conducted at the Department of Pharmacology, Faculty of Medicine, Peradeniya, Sri Lanka. We analyzed the results of end semester examinations of Pharmacology (F, S1 and S2) serially. Each end semester examination comprises of MCQ and SAQ.

The results (MCQ, Essay and total marks) of F, S1 and S2 semesters were extracted and deidentified. The data set was randomly split into a 70% training set and a 30% test. A multiple linear regression model was fit to predict the score of S2 using F and S1 scores. Receiver operating characteristic (ROC) curves were constructed on training data to predict the performance of S1 and S2 using marks of the preceding examinations. The best cutoff scores were estimated with the Youden's J statistic. The area under the curve (AUC) for each ROC curve and the sensitivities and specificities for the corresponding best cutoff values were also calculated. The linear regression model was validated by running the predictions on the test set. An ROC curve was constructed for the test data, to predict the S2 performance using the regression model. The accuracy measures were calculated for the cutoff score established by the training data. Odds ratios were computed to assess the association between failing an exam and the likelihood of failing the subsequent exams. A logistic regression model was fitted to estimate the probability of failing the S2 examination, based on the predictions given by the linear regression model.

Results

Results of 583 students were analyzed. The scores followed a near normal distribution. The training set and the test set contained 410 and 173 observations respectively. The multiple linear regression model had a residual standard error of 8.21 and an adjusted R squared value of 0.45. The F statistic was 84.5 (p value < 0.001). The ROC curve for the model predicting S2 performance using the linear combination of F and S1 scores had an AUC of 87% for training data and 88% for testing data. The sensitivity and the specificity for unseen test data were 86.5% and 64.7% respectively.

Conclusion

S2 performance could be predicted by the prepared model using the F and S1 scores with an 86.5% sensitivity and 64.7% specificity. Thus, this model could be used in early identification of students with a potential to fail in future exams which will enable early and personalized interventions and implementation of corrective measures.

Integrating Knowledge on Artificial Intelligence into Undergraduate Medical Education in Sri Lanka: Insights, Challenges, and the Way Forward

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Keywords

AI, Artificial Intelligence, Undergraduate, Medical Education, Medical Curriculum, Challenges, Insights

Introduction

Artificial Intelligence (AI) enables machines to mimic cognitive functions like learning and problem-solving. The AI revolution in healthcare encompasses medical education, information management, medical expert systems, drug discovery, and robotics. In this dynamic landscape, medical professionals require AI knowledge not only to operate new technologies, cultivate patient trust, and overcome the 'Black Box' phenomenon but also to address challenges involving ethics and potential risks of AI in healthcare. While foreign medical schools have incorporated AI-related knowledge into their undergraduate curricula, this futuristic practice has yet to gain traction in Sri Lanka.

Method

An extensive literature survey on PubMed, Google Scholar, and IEEE Xplore was carried out using the keywords "Undergraduate Medical Education", "Artificial Intelligence", "Machine Learning", "Deep Learning" and "Neural Networks" to identify AI trends in healthcare and medical education, along with a systematic search for the involvement of Sri Lankan medical academics in AI-related research. Selected experts possessing dual medical and technological backgrounds, and a cohort of 20 medical undergraduates (MUGs) were interviewed using semi-structured questionnaires to gather their insights.

Results

Both the experts and MUGs agree that rising trends warrant doctors to have basic AI knowledge. While MUGs proposed providing a foundational understanding of AI and its applications, experts additionally recommended incorporating the limitations of AI, along with its ethical and legal aspects. Although the consensus among experts and a majority of MUGs was to make AI compulsory, a minority of MUGs suggested that AI be an elective due to the concern of an additional academic burden. While the prime focus of experts was on addressing the attitudes of undergraduates, including their anxiety towards AI penetrating into medicine, they also highlighted the lack of resource persons who have an understanding of both fields. Both parties suggested that the AI coursework be implemented at multiple junctures along the undergraduate journey, including the orientation period. Medical Faculties of Moratuwa and Colombo Universities have taken initiatives to integrate previously lacking technological subjects into their undergraduate curricula, with the possibility of introducing AI-related content in the future. MUGs have also shown interest in gaining exposure to AI through student societies and self-directed learning. Research interest in AI was shown by 15 medical academics from the 11 state medical faculties in Sri Lanka, who have engaged in 20 AI-related medical research since 2017.

Conclusion

As AI penetrates healthcare, doctors require basic AI knowledge to stay abreast. The medical applications and limitations of AI, along with its ethical and legal implications can be taught as compulsory coursework at multiple points in undergraduate medical curricula, with a focus on developing positive attitudes towards AI. Further knowledge can be provided through elective

courses. The groundwork is being laid in Sri Lanka for the integration of technological subjects into the medical curriculum. MUGs have also shown interest in learning AI, both independently and through student societies, while opportunities exist for them to engage in multidisciplinary research under the supervision of willing academics. This is likely to generate future resource persons with a multidisciplinary understanding of Medicine and AI.

Meaningful Student Engagement in Accreditation and Quality Assurance

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Keywords

Accreditation and quality assurance, Meaningful student engagement, Student voices

Introduction

The education of medical and health professions around the world has been impacted by significant differences and inequalities, particularly during times of pandemics and public health emergencies. This has highlighted the importance of ensuring quality assurance in medical education, given the increasing number of medical schools globally and the challenges of global mobility in the healthcare workforce. It is crucial for medical students, who will become future healthcare workers, to receive high-quality medical education that addresses the healthcare needs of the populations they will serve. To achieve this, students should actively participate in all aspects of quality assurance and accreditation processes.

Method

IFMSA established a Working Group to assess the meaningful student engagement in Accreditation and Quality Assurance of Medical Schools. A survey was shared with medical students worldwide to evaluate the status of student engagement in the Accreditation and Quality Assurance process of Medical Schools and its impact pre, during, and post the COVID-19 pandemic for sharing at the conference.

IFMSA also conducted a worldwide campaign to raise awareness about AQA and MSE and advocate for them. The campaign aimed to gather and publish data on meaningful student engagement in AQA and its effects, discuss the updates in AQA and the approaching 2024 deadline, and support the students' role in the accreditation process.

Additionally, IFMSA conducted a session introducing Accreditation and Quality Assurance to over 150 medical students from 15 countries at the 2023 Asia-Pacific Regional Meeting. The effectiveness of the session was measured through pre- and post-evaluation forms to understand its impact.

Results

IFMSA conducted a global survey to evaluate medical students' knowledge, perception of importance, involvement, and satisfaction regarding student engagement in AQA within their schools and how it has changed before and after the COVID-19 pandemic. A comprehensive analysis of the EDI Global Assessment relevant to the Asia-Pacific region will be presented at the conference.

The AQA campaign successfully gained extensive global exposure through promotion on IFMSA's platforms. Within a regional context, the session focusing on AQA effectively enhanced participants'

knowledge (from a score of 2.72 to 4, $P>0.05$), confidence (from 2.61 to 3.61, $P>0.05$), and motivation (from 3.11 to 3.5, $P=0.32$) concerning the subject matter. The results reflected students do not have adequate information and Accreditation of Quality Assurance and hence limiting their confidence and motivation on the topic. The statistical insignificant result for motivational change may be due to high academic workload, little interest on the topic or more focus on professional knowledge. Further research can be done on finding the cause of low motivation even with high knowledge and confidence.

A policy document has been developed by IFMSA recognizing the importance of quality assurance and advocating for meaningful student engagement in the accreditation process and internal quality assurance systems of medical education.

Conclusion

As the primary beneficiaries of the medical curriculum, students are well-positioned to critically evaluate it. Thus, medical students should be actively engaged in faculty meetings, site visits, and representation within accreditation bodies.

Innovation of a Medical Educational Simulator on Human Arterial Pulse Characters

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Keywords

Pulse, Character, Simulator, Medical Education, Innovation, Radial, Rhythm, Medical student

Introduction

The human arterial pulse is a frequently examined finding obtained by the tactile arterial palpation of various arteries that can be compressed against a surface of the body by trained fingertips. The pulse exhibits variations in its on their rate, rhythm, volume, and character where all of these characteristics are significant in developing a possible differential diagnosis.

Palpation of arterial pulse is indispensable in the assessment of patients' wellbeing and diagnosis of diseases as well as in fostering a positive doctor-patient relationship. Hence, every medical person should be well skilled in interpretation of pulse. However, the opportunity to feel every pulse character is not so promising during their early years of practice. Unfortunately, there are not any dedicated learning equipment to aid this proficiency, the skill should be solely mastered from the patients they encounter day by day.

We are taking the most initial step to introduce the concept of converting a coded electrical signal to generate a mechanical pulse wave. Our approach includes the utilization of most suitable costeffective raw materials to facilitate the operation of the simulator's distinct functionalities.

This project was undertaken during a short time period of 4 weeks under the Electives Programme held by Faculty of Medicine, University of Colombo.

Method

Our initial intent was to produce mechanical wave patterns to the reference found in literature about pulse characters.

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We coded our microcontroller to create different pulse wave patterns within the tubing system using a peristaltic motor where disparities in motor speed were effectively transposed into pressure differentials within the fluid enclosed within the tubing. This was achieved through a systematic trial and error methodology, which involved the careful selection and manipulation of a diverse range of tubes and fluids to accurately mimic wave patterns.

We have designed an artificial hand with the objective of providing the audience of our simulator an authentic opportunity to encounter the tactile sensations associated with radial pulse wave patterns. The completion of the simulator involved the finalization of its exterior through the designing of a wooden enclosure.

Results

Our project was limited to simulating various pulse characters such as normal, slow rising and high-volume pulse character as we had to adhere to a condensed time frame of 4 weeks, we hope to improve our simulator extending to include other characteristics of pulse and rate and rhythm abnormalities in the near future. We intend to conduct a pilot survey to increase the credibility of this simulator and we are willing to submit the relevant results to the APMEC exhibition. Furthermore, we have applied to obtain patent certificate as well.

Conclusion

This was an initial approach to the concept of using coding techniques to create mechanical pulse wave patterns with the usage of inexpensive materials in a cost-effective way.

Even the pre-existing pulse generators, despite their elevated costs, failed to produce any variations in pulse characteristics. Thus, our objective was successful to pioneer the realization of a concept of development of a simulator replicating the human arterial pulse characters, achieved through utilization of economical raw materials.

The Mixed Reality Application on Medical Education - Taking Cardiovascular Anatomy as an Example

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Keywords

Technology-assisted teaching, Mixed Reality, HoloLens, Medication education

Introduction

With the maturity of imaging technology, the application of virtual reality (VR) is becoming more and more extensive. Mixed Reality (MR) is a technology that combines Virtual Reality (VR) and Augmented Reality (AR). With the capabilities of the Microsoft HoloLens 2 (HoloLens 2) device, the hybrid world around the user becomes interactive and actionable, connecting the virtual and real worlds in a more natural way. HoloLens 2 has also achieved good application results in the field of medical education. This study will illustrate the application of MR in medical education of cardiovascular anatomy.

Method

This study takes use of MR with HoloLens 2 the smart glasses as a vehicle, and Subject under test, called the learners, can use interactive 360-degree 3D clear full-color stereo and image rotation to

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learn cardiovascular anatomy (including anatomy of coronary artery, aorta, lower extremity artery, carotid artery and intracranial artery). These learners are the employee of National Taiwan University Hospital Hsin-Chu Branch (NTUH Hsin-Chu Branch) included new nurses, nurse practitioners, radiographers, and residents. At the beginning of the learning course, the corresponding direction of the blood vessel name and the examination questions of the blood vessel supply area are used as the pre-test. The course content is taught with traditional slides, with teachers and learners wearing Hololens2 at the same time to operate MR images at the same time, for multi-sensory and interactive learning. The learners take the quiz again and conduct self-assessment at the end of the course. The Paired-Samples T Test is used to analyze whether the pre-test and post-test scores are different, and self-assessment is used as an indicator of learning effectiveness.

Results

There are 8 residents, 17 radiographers, 20 nurses, and 27 nurse practitioners in the 4 courses of cardiovascular anatomy. A total of 72 learners participated. The average score of the pre-test is 27.5, and the average score of the post-test is 81.5, reaching a significant difference. More than 90% of the learners agree that the teaching tools of MR makes learning more interesting and achieves learning goals faster than the traditional way. It is hoped that the teacher can continue to use MR to teach.

Conclusion

Using of technology-assisted teaching can provide specific situations for learning interaction, increase learning interests and improve learning effectiveness. This study analyzes the characteristics, the advantages and disadvantages of this teaching project, and make suggestions for teachers in the development of VR teaching projects to help improve effectiveness on technology-assisted teaching.

The Use of 3D Printing in Teaching Musculoskeletal Oncology for Undergraduates

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Keywords

3D Printing, Musculoskeletal Oncology, Medical Education, Surgical anatomy

Introduction

The approach to integrating relevant anatomy in the clinical year medical curriculum has been debated for many years. The ability to relate pathology with the anatomy is essential in surgery. Current literature has explored the broad impact of 3D printing in medical education. However, there is little evidence on 3D printing for teaching of musculoskeletal oncology (MSO). This study aims to analyze the effectiveness of 3D printed models in MSO pathology in enhancing the learning experience, engagement and understanding of clinical/surgical anatomy for medical students.

Method

This is a cross-sectional cohort study involving 75 clinical year medical students across 3 years from 2 medical schools in Singapore, rotating through a single teaching hospital's orthopaedic department. There were 51 and 24 undergraduate students from each medical school respectively. There were 44 year 3s (M3s), 7 year 4s (M4s), 24 year 5s (M5s).

Participants first viewed a patient's set of computed-tomography (CT) images of a large pelvic osteosarcoma from a free open source database, the Cancer Genome Atlas Sarcoma Collection (TCGA-SARC). A 10 minute pre-model questionnaire which comprised 15 questions categorised by, 'anatomical knowledge', 'spatial awareness', 'surgical planning and complications', was administered to assess the baseline knowledge in their interpretation of the pathology via CT images only. Next, a 3D-printed model of the pelvic osteosarcoma, which included colour-coded adjacent structures such as the great vessels, ureters, kidney etc. was provided as an adjunct to answer the same questionnaire again. This then was concluded with a 5-point Likert scale feedback survey which comprised 6 questions to gauge their perspectives and experience. The data was compiled and statistical analysis was executed via Statistical Package for the Social Sciences (SPSS).

Results

The mean scores for the entire cohort of students comparing their pre and post-model questionnaire increased from 8.15 (SD = 1.85) to 9.49 (SD = 1.7) ($p < 0.001$). The M5s had the greatest improvement from 8.00 (SD = 1.89) to 9.54 (SD = 1.59) ($p < 0.005$). Notably, M3s had the highest scores from 8.41 (SD = 1.69) to 9.66 (SD = 1.67) ($p = 0.001$). There was no significant difference comparing the scores of the students between the 2 medical schools. 90.7% and 86.7% of students either agreed or strongly agreed that the 3D model had helped them further in the understanding of the anatomy of the sarcoma and that they would like to have 3D printing models to augment their learning in anatomy respectively.

Conclusion

3D printing is an effective teaching adjunct for MSO surgical anatomy for medical undergraduates and could be used to enhance their understanding and learning experience. 3D models could be integrated in the teaching curriculum of surgical anatomy for undergraduate students.

Monday 15th January 2024

9.00 am – 10.30 am

Virtual Room 2

Short Communication Session 1 – Teaching, Learning and Assessment

Exploring Interest in Pursuing Postgraduate Education of Physiotherapists in Sri Lanka

Subashini Jayawardane, Sri Lanka

Preparedness for University Life Among Medical Undergraduates in a Selected University in Sri Lanka – A Blessing or Menace in Disguise?

Priyanga Burhan, Sri Lanka

A Qualitative Study Exploring Approach to Learning by the 21st Century Postgraduate Learners

Sarmishtha Ghosh, India

The Study Results of an E-Learning Participant's Self-Study Skills

Uyanga Badamraa, Mongolia

Students' Perception of the Educational Environment in a Medical School in Sri Lanka: Comparative Study Among Students in the Preclinical Phase and the Clinical Phase of the MBBS Programme

Chamara Sampath Paththinige, Sri Lanka

Writing Lecture Notes Leads to Significantly Higher Retention of Knowledge; A Randomized Study

Thilanka Seneviratne, Sri Lanka

Leveraging ChatGPT to Craft Medical Assessment Questions: Key Strategies for Healthcare Educators

Inthrani Raja Indran, Singapore

How Not to Drown in an Undergraduate Medical Course: Design and Implementation of a Workshop to Develop Good Study Skills

Anshu, India

Exploring Interest in Pursuing Postgraduate Education of Physiotherapists in Sri Lanka

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Keywords

Physiotherapy, Postgraduate education, Sri Lanka, Physiotherapists

Introduction

Although physiotherapy education is rapidly advancing globally, the opportunities for postgraduate education in physiotherapy in Sri Lanka are limited. With the dynamic and evolving nature of the profession, constrained learning prospects restrict the attainment of the optimal value. This study aimed to evaluate interest in higher education among the physiotherapists currently employed in Sri Lanka.

Method

A descriptive cross-sectional study was done among 350 qualified physiotherapists from hospitals in Sri Lanka in a systematic consecutive sampling manner. The self-administered questionnaire consisted of questions about current physiotherapy practice and desire for higher education.

Results

Statistical analysis of data was done by using SPSS version 25.0. Among the participants, with a mean age of 31.09 (SD= 4.94) years, 76.95% (n= 270) have attained a bachelor's degree as the primary qualification, while 68.85% (n= 241) have accumulated less than 5 years of work experience. The study found that 85.98% (n= 301) of subjects reported an inclination towards pursuing postgraduate education. Distance learning methods including video conferences, online self-study and non-internet-based self-study were preferred by 69.7% (n= 244) as well and 81.53% (n= 285) desired part-time courses. A scarcity of pursuing higher studies was reported by 34% (n = 119) of physiotherapists.

Conclusion

According to this study, the higher level of interest among physiotherapists in pursuing higher education underscores the value of the development of postgraduate physiotherapy degree programmes in Sri Lanka. The potential barriers encountered when considering further education in physiotherapy within the Sri Lankan context were identified.

Preparedness for University Life Among Medical Undergraduates in a Selected University in Sri Lanka – A Blessing or Menace in Disguise?

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Keywords

Preparedness, Medical undergraduates, University life

Introduction

Changing life circumstances carry some kind of stress at any stage of life. Being a medical student at a state university in Sri Lanka is the dream achievement for bio-stream advanced-level students in Sri Lanka. Students who get the highest Z scores at highly competitive advanced-level examinations enter the medical faculties of Sri Lanka. However, a significant number of students start struggling to cope with the day-to-day life in the university. Some of these students find it very difficult to adapt to a new life and end up with undue stresses and anxieties, leading to depression or other psychological problems with academic under achievements. Adoptability to a new environment and the ability to cope with new stresses will help students achieve their academic goals. Hence, the aim of this survey was to assess how ready these students were before they first set foot on the faculty of medicine at Wayamba University of Sri Lanka.

Method

A cross-sectional descriptive study was carried out among all students who were selected to the faculty of medicine at Wayamba University of Sri Lanka in 2023 just before they entering into the university. All the selected students (n = 150) were invited to take part in the survey. A self-administered Google questionnaire was used to collect the data. The questionnaire consisted of socio-demographic details, readiness for university life in view of perceptions, prior knowledge, practice,

and planning. The questionnaire was created with literature survey, and face and content validity were assessed with experts' opinions. The anonymous questionnaire was administered in all three languages among study participants through emails after getting administrative clearance from the faculty of medicine and being instructed to fill it out after consenting.

Results

The response rate was 99.3% (n = 149/150). Out of all student 65% (n=98) filled the form in English. Out of 121 students who studied in Sinhala medium, only 79 students filled out the questionnaire in English medium. Fourteen percent (n = 20) did not try to explore university life before admission. Out of the explored participants, 81% (n = 105) did a search about Wayamba University. According to the perceptions of participants, for a medical student mean hours of study per day were 11.4 hours (SD = 4), and the mean sleep duration was 5.5 hours (SD = 0.9) per day. Even though 98% of students engaged in hobbies during their advanced levels, only 67.7% of them were expected to continue them in university.

Although majority (84%, n=125) were having healthy food habits only one third was engaged in outdoor exercises. However, one fourth of students have never thought how to continue their healthy habits in the university.

Conclusion

The present survey emphasized the inadequate preparedness of student before entering the university. Programs to increase awareness of importance of preparation in view of planning how to adapt to a new environment, before entering to the university is recommended.

A Qualitative Study Exploring Approach to Learning by the 21st Century Postgraduate Learners

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Keywords

Adult learner, Postgraduate Training, Contextual learning, Autonomous, Experiential

Introduction

Post graduate education is gaining importance for a variety of reasons which range from personal interest and passion to career progression and a better income for decent living.

Post graduate students are adult learners, who are expected to understand adult learning principles and follow the same in the form of active, collaborative, experiential and self-regulated learning. However, in professional courses like medical and allied health sciences, the curriculum is pre-determined and teachers mostly teach in a traditional manner, guided by regulations from accreditation bodies. The trend of learning by current generation students have shown significant difference with respect to previous ones. So, in order to give the curricular activities more context, it is important to identify the learning skills of the adult postgraduate learners and to explore their expectations and beliefs in teaching learning activities. The aim of the current study was to explore the expectations, beliefs in teaching learning activities, personal understanding regarding learning and the influence these factors on knowledge acquisition in the postgraduate students.

Method

An exploratory qualitative study was designed to address the relevant research questions. Purposive sampling was done from the population of medical postgraduate students in their first year. Individual semi structured interviews were conducted followed by content analysis, to explore the approaches to teaching, learning and assessment that appear to influence their learning experience.

Results

Five students from pre and paraclinical branches and three students from clinical branches were interviewed. The reasons for joining postgraduate course were unanimously stated to be career progression and better job acquisition. However, the selection of respective branches was mainly determined by availability post selection exams. Only one individual said that she chose a preclinical branch for the scope of teaching and research. The best aspect of the postgraduate teaching that they experienced was stated to be the focus on the subject of interest, autonomy in deciding what to do and when to study. Two of the clinical postgraduate students highlighted the hands-on experiential learning as the most important aspect while one pointed out the authoritarian approach of teachers, similar to undergraduate teaching, was a disabler for his learning experience. Responses to the self-assessment questionnaires showed that they were all capable of self-regulated and self-directed learning.

Conclusion

Postgraduate students of the current generation expect more autonomy to be given to them with an emphasis on experiential learning. Even though they were not theoretically aware of adult learning principles they stated those through their answers to the respective probing questions. They preferred a context-based approach and not a traditional approach to enhance their learning. Despite the low sample size, results informed about postgraduate students' learning experience in the changing times that determined their success in the respective specialties. The results also highlighted that the teaching activities needed to be modified accordingly so that postgraduate students have enough contextual learning and are empowered to do so yielding effective and satisfactory learning.

The Study Results of an E-Learning Participant's Self-Study Skills

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Mongolian National University of Medical Sciences

Keywords

Digital learning, e-Learning, Behavior

Introduction

The rapid development of technology has become a part of human life. Smartphones, tablets, and screens play the role of person's memory and store their entire personal life. It's no secret that we are slowly becoming Cyborgs under its influence without even realizing it. However, during the Covid-19 pandemic we have seen that the rapid development of technology has its advantages in providing an opportunity for continuous learning. Therefore, it is important that we effectively and efficiently develop this opportunity to use it for our professional and personal development. As the basis for our research, we examined the level of satisfaction and effectiveness of personalized e-learning among undergraduates who studied during the Covid-19 pandemic.

Purpose was to assess the students' level of technological competency, activeness, technical skills, desire to learn, as well as the teacher's ability to conduct e-learning.

Method

The research was conducted through a survey using Google Forms. The survey was completed by 490 students studying in the 5th year of human medicine at MNUMS in the 2022-2023 academic year, in which they evaluated the e-courses of their 3rd and 4th years. In addition, we have also conducted interviews from 8 groups of students. They were asked about their learning environment, opportunities, advantages, and disadvantages, and teachers' e-learning conducting skills during the Covid-19 pandemic.

Results

On a survey which asked about the average time of workload and how many hours of e-learning sessions they attended, the results showed that 20% of all students had an average workload of 2-4 hours, 32.5% had 4-6 hours, and 47.5% had 6-8 hours.

When asked to evaluate the user satisfaction of various technologies during e-learning (for example, google forum, share) on a scale of 1-5, 5% of students gave 2 points, 25% gave 3 points, 25% gave 4 points, and 45% gave 5 points.

When asked whether e-learning had a positive effect on academic performance, 65% strongly disagreed and 35% strongly agreed.

Conclusion

Based on the results of the study, we have determined that in order to continue expanding the use of online based education, we need to improve our teaching methods, the accuracy of our online grading systems and solutions, and strengthen our technological competency.

Students' Perception of the Educational Environment in a Medical School in Sri Lanka: Comparative Study Among Students in the Preclinical Phase and the Clinical Phase of the MBBS Programme

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Keywords

Educational environment, Preclinical, Clinical

Introduction

The educational environment is crucial in determining students' learning and the success of an educational program. The MBBS program of the Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka (FMAS, RUSL) consists of the preclinical phase that occupies the first two years of the program, and during the third to fifth years, the students are exposed to a different educational environment in which they undergo hospital-based and community-based clinical training. This study was conducted to assess the students' perception regarding the educational environment and to compare the perceptions of the students in the preclinical and clinical phases of the MBBS program in the FMAS, RUSL.

Method

Dundee Ready Education Environment Measure (DREEM) was administered online to all undergraduates of FMAS, RUSL maintaining anonymity. Results were analyzed based on DREEM guidelines, with the SPSS software, using descriptive statistics, and the Mann-Whitney-U test. The study was approved by the Ethics Review Committee, FMAS, RUSL.

Results

A total of 681 students responded (Response rate – 63.1%). Among the respondents, 448 (65.8%) were in the preclinical phase and 233 (34.2%) were in the clinical phase of the MBBS program. The majority (67.7%) were females. The overall mean score was 139.6 ± 28.5 (69.8%) indicating 'more positive than negative' perception. Mean scores for all sub-domains were one grade below the best. The highest score was related to perception of learning (75.8%) and the lowest scores to atmosphere (66.7%) and social self-perception (66.8%). Items with the highest scores were related to the knowledge (3.53) and preparedness (3.42) of teachers and the lowest score was related to the ability to memorize (2.07). Academic self-perception was significantly higher among males (Mann-Whitney-U 40974.0, $p < 0.001$), and no significant gender difference was observed in other sub-domains. Perception of the educational environment was significantly more positive among preclinical students ($p < 0.05$) in the total DREEM score and all five sub-domains, compared to students in the clinical phase. Of the 50 items, 37 showed significant differences between pre-clinical and senior students ($P < 0.05$), and scores of 35 items were higher among pre-clinical students. Items with the highest significance among preclinical students compared to clinical students were 'course is well-timetable', 'teaching is well-focused', and 'teaching time is put to good use'. The item with the highest significance among clinical students was 'last year's work has been a good preparation for this year's work'. A significant difference was observed between the preclinical and clinical students in two items scored in reverse, in which the clinical students perceived that 'the course organizers ridicule their students', and 'the course organizers are authoritarian'.

Conclusion

The majority of undergraduates of FMAS, RUSL perceived the educational environment positively. This study has identified the differences in students' perceptions regarding two different learning environments in the MBBS program and highlighted the areas requiring improvement for the success of the program.

Writing Lecture Notes Leads to Significantly Higher Retention of Knowledge; A Randomized Study

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Keywords

Writing lecture notes, Immediate recall, Knowledge retention

Introduction

Recalling and retaining what is learnt is as important as learning itself. Various methods and strategies are implemented to improve the recalling power. Nowadays students have become more passive listeners as they usually get the lecture note at the end of the lecture. It is worthwhile looking into the proposition that the simple task of writing down the lecture note by students themselves during

a lecture improves retention and recall rather than just listening the lecture. This study is aimed at that task. The Objective is to assess the difference of immediate recall after a lecture. Between the students making their own notes during the lecture and the students who are not making notes, instead dependent on printed notes given at the end of the lecture.

Method

46 students studying for bachelors' degree in nursing in the Faculty of Allied Health Sciences, University of Peradeiniya were included in the study. They were randomized into two groups. At the start of the lecture, group A was told that they will be provided with printed lecture notes and the group B was told that they will NOT be provided with printed notes. Both groups had the same lecture. At the end of the lecture they were given a MCQ test to assess the immediate recall of the teaching.

Results

Total of 46 students participated in the study. The mean mark obtained by the group who were given the printed notes was 68.1% whereas the mean mark obtained by the group who made their own notes was 80.08%. The difference was highly significant at $P=0.007$.

Conclusion

A task as simple as taking down an own lecture note, seems significantly boosting the power of recall.

Leveraging ChatGPT to Craft Medical Assessment Questions: Key Strategies for Healthcare Educators

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Keywords

ChatGPT, Assessment, Multiple Choice Question

Introduction

Crafting quality assessment questions for the medical curriculum is a formidable challenge. However, AI-driven large language models, notably ChatGPT, offer transformative solutions. These models not only facilitate question development, but they also equip students with a novel means for self-assessment. Significantly, for non-native English speakers, ChatGPT aids in refining the linguistic nuances of questions and scenarios.

Method

We focused on devising guidelines for educators, leveraging ChatGPT to enhance question generation in medical education, with a focus on multiple-choice questions (MCQs). To develop the instruction stem for question generation, we consolidated a blueprint of core medical concepts, identified salient keywords, and iteratively refined the text inputs to derive high-quality questions, embedded with Bloom's taxonomy principles. Post-generation, experts evaluated the questions, fostering ongoing refinement.

Results

Our iterative process yielded five pivotal ways to harness Chat GPT's capabilities in medical question generation.

Firstly, **define the objective of the question generation, and select the appropriate model based on these needs and accessibility.** We would recommend ensuring compliance with data security regulations at institutions, particularly for summative assessments and to choose ChatGPT 4.0 over its predecessor 3.5 for greater accuracy, and concept integration, though this version requires a paid subscription and activating its beta features might enhance its performance.

Next **optimize the instruction stem design for MCQ generation.** It is important to clearly articulate the key concepts to be tested, the type of question (such as MCQ or MEQ), and the format of answers, including whether a rationale is required. Setting constraints for the model is also important. Building on prior instructions aids in maintaining parameters and fosters versatility, and experimenting with word choice can optimize outcomes. Incorporating evidence-based practices in question generation into the instructions for ChatGPT is also beneficial.

Thirdly, utilise ChatGPT to **build authentic clinical scenarios.** Develop a range of clinical vignettes that are relevant to your needs. Scenario development can be augmented with phrases such as "patient-related factors" and "key clinical indication" in the instruction stem.

How Not to Drown in an Undergraduate Medical Course: Design and Implementation of a Workshop to Develop Good Study Skills

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Keywords

Study skills workshop, Improved academic performance, Study strategies, Retention, Time management, Deep learning, Stress management, Chunking of information, Metacognition, Self-directed learning

Introduction

The medical course is voluminous, and undergraduate students are expected to process large volumes of information in a short span of time. Learners can therefore experience very high-pressure situations. Although academic achievers enter the course through highly competitive examinations, there are several deterrents immediately after entry which can lead to poor academic performance. Students experience a sudden transition from didactic teaching in high school to a student-centred curriculum in medical school. In addition, there is stress related to adapting to a new environment alone away from the protective environment of home. Members of the Medical Education Unit of MGIMS Sevagram thought that it was important to introduce students to study skills and strategies to ease their transition to medical school.

Method

A one-day workshop was designed for undergraduate medical students. All sessions were interactive, and used games, reflections, group work and other high-engagement activities. The topics included in this workshop were: effective habits of successful students, memory and retention strategies, metacognition, self-directed learning, time management, stress-management, speed reading techniques, Cornell's note-taking technique, handling exam anxiety, team learning, learning from patients, etc. Each workshop had a maximum of 30 students. Participation was voluntary and preference was given to undergraduate students from the first two years. These workshops were conducted each year from 2015 to 2022 (barring the pandemic when it could not be conducted).

Quantitative and qualitative feedback was taken from participants of the workshop. Faculty were also asked to reflect on how the sessions went and what could be done better. These inputs were analyzed in the debriefing sessions after the workshops.

Results

Participating students said they found the techniques and strategies shared in the workshop very useful. Specifically, they liked the focus on deep learning strategies, time management techniques such as the Pomodoro technique, collaborative learning and peer learning, note-taking, organization of information using retention strategies like mnemonics, chunking of information, spaced retrieval and revision etc. The informal and open nature of the workshop which made students comfortable about sharing their experiences and learning from each other was appreciated. The students were also contacted 6 months after the workshop to gauge which techniques they were still applying. The workshop was popular by word of mouth, and students approached us to conduct it repeatedly several times a year. The success of this workshop can also be gauged by the fact that we were invited at least on three occasions to demonstrate this workshop to faculty of other medical schools at the National Conferences on Health Professions Education held all across India every year.

Conclusion

Undergraduate students need to be armed with strategies and skills to improve academic performance when they transition from the protected environment of high school to a more competitive academic environment at medical school. A structured intervention in the foundation years can be crucial for improved academic performance.

Listing for Short Communication Sessions

Monday 15th January 2024

9.00 am – 10.30 am

Virtual Room 4

Short Communication Session 2 (Young Scholar) – Miscellaneous

Comparison of Graded Marking Method Vs Standard Method for Single Best Answer – Multiple Choice Question Assessment in the Clinical Setting

Bhanu Wijetilake, Sri Lanka

Envisioning the Future of Dentistry Through the Lens of Artificial Intelligence (AI)

Yawar Hayat Khan, Pakistan

Implementing Moodle-Based Multiple-Choice Questions (MCQs) for Summative Assessments in a Newly Established Medical Faculty in Sri Lanka

Sanka Paranavithana, Sri Lanka

The Level of Competency in Procedural Clinical Skills Among Pre-Intern Medical Graduates in Sri Lanka; A Self-Reported Assessment

Umani Senavirathne, Sri Lanka

Raising the Student Voice: Advocating for Meaningful Student Involvement in Medical Education

Kenneth Tsz Chun Lam, Denmark

The Relationship Between Screen Time Exposure and Migraine and Non-Migraine Headaches Among Undergraduates of Faculty of Medicine, University of Colombo; A Cross-Sectional Study

Githmi Bandara, Sri Lanka

Knowledge Transfer Instruments in Preparation for Future Learning: A Randomized Controlled Study

Ganashiam Nadarasa, Sri Lanka

Next Generation MBBS Graduates in the Context of AI at YLLSoM

Satish R Lakshminarasappa, Singapore

Comparison of Graded Marking Method Vs Standard Method for Single Best Answer – Multiple Choice Question Assessment in the Clinical Setting

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Keywords

Medical, Education, MCQ, SBA, Graded marking method, Undergraduate, Medical Student

Introduction

Single Best Answer – Multiple Choice Questions (SBA-MCQ) is an important assessment tool used in the clinical examinations to assess higher cognitive levels of learning such as clinical data interpretation, problem solving and decision making and reasoning.

One major drawback in this marking is whilst the most accurate answer is marked one, the near correct answers and remotely correct answers are grouped together and marked 0. In other words, the efforts of a candidate who attempts a close and correct clinical rationalisation is not appreciated in this marking system.

We argue that the candidate should be given an appropriate mark based on his clinical reasoning skills through a novel marking scheme by awarding weighted marks for the answers depending on the degree of accuracy

The aim of the study was to compare the students' perception on the novel marking with the standard marking method in the clinical setting.

Method

A descriptive cross sectional study was done involving students final year medical students attending surgical rotations. Twenty single best response questions were marked using the standard marking scheme, and graded marking scheme. Ten true false type questions were given for comparison by Spearman's coefficient test. The weighted marks for the novel method was decided by a panel of experts. Students perception was assessed using a self-administered questionnaire according to a Likert scale.

Results

A total of 113 students participated in the study. The median marks scored as per standard marking scheme for SBR was 55 out of 100 (range: 30 – 85), while the median marks scored for the graded scheme was 61 (range: 31 – 94). Around 82.3% (n=93) scored more marks as per graded scheme and around 10.61% (n=12) scored less marks. The correlation with the marks obtained for true false type question was higher with the standard marking scheme (ρ : 0.499) compared with the graded marking scheme (ρ : 0.440), which was not statistically significant.

The majority believed that the graded marking scheme is more practical (90.27%, n=102) and clinically relevant (92.92%, n=105) when critically analysing the question. Overall, 65.49% (n=74) students agreed that the graded marking scheme was more preferable than the standard one.

Most students believed that graded marking scheme is likely to differentiate a good students from average (70.8%, n=80). 41.59% (n=47) believed that graded SBR scheme causes more anxiety when marking. 32.85% (n=36) also stated that the graded system would require the examiners to pay more detail into the formulating distractors.

Conclusion

This novel graded marking scheme method has the potential to improve SBA-MCQs to a more clinical relevant assessment that stimulates the candidates to practice more reasoning skills. This would also improve the quality of the question and would provide a better learning experience for the students.

Envisioning the Future of Dentistry Through the Lens of Artificial Intelligence (AI)

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Keywords

Dentistry, AI, Dental education

Introduction

In the dynamic landscape of healthcare, the integration of technology is rapidly redefining pedagogical paradigms. The aim of this presentation is to familiarise the audience with the importance and need of integrating technology in healthcare systems in general and the impact of AI in Healthcare overall, and specifically in Dental Education.

Method

The presentation was prepared after an extensive and thorough literature review in the context of AI and its implications in healthcare. Moreover, the applications of AI in Health Professions Education were also explored and specifically the new technologies in Dentistry were highlighted.

The presentation explores the need to understand the existing status of traditional Healthcare systems and the reasons for the paradigm shift to integrate technology into healthcare to have sustainable outcomes. It gives a good overview regarding the future of Dentistry envisioned through the lens of AI highlighting issues, trends and challenges in the Dental Ecosystem.

Results

It has been proven from the evidence base that AI has promising future in healthcare. There is an AI explosion in the Healthcare sector in the last two decades especially Dentistry. Its applications in Dentistry are tremendous and multifaceted.

Conclusion

To conclude we can say that AI has a great potential in healthcare and a lot of research has been going on in this regard. In Dentistry specifically it has many advantages and shown a great deal of progress and impact in various Dental domains. However, apart from the many advantages, it has a few limitations as well and still considered to be an augmented tool for the physicians rather than to replace them completely.

Implementing Moodle-Based Multiple-Choice Questions (MCQs) for Summative Assessments in a Newly Established Medical Faculty in Sri Lanka

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Keywords

MCQ, LMS, Summative assessment, Medical undergraduates

Introduction

The Faculty of Medicine (FOM) of the University of Moratuwa (UOM), one of the newest medical faculties in Sri Lanka, is a part of a university renowned for its focus on technology and innovation. From its inception, the FOM, UOM has been dedicated to integrating modern global trends and advanced pedagogical approaches into its teaching and learning methods. The faculty's commitment to user-friendliness, paperless operations, and easy marking procedures led to the decision to administer summative multiple-choice question (MCQ) assessments via "Moodle" online platform. This innovative approach, the first of its kind among medical faculties in Sri Lanka was primarily driven by these factors. As the FOM welcomed its inaugural batch of students in 2021, during the height of

the COVID-19 pandemic, the necessity of utilizing Moodle for assessments became even more apparent.

Method

The initial planning involved collaboration with the Center for IT services (CITES) of UOM for training and facilitation. The staff was trained through workshops and hands-on experience via a Moodle-based test course. The process of creating a quiz in the "Moodle" learning management system is accomplished with a few clicks, supported by a written standard operating procedure. Once the quiz is set up by a designated examiner, the individual questions can be uploaded sequentially with ease by the examiner panel. Different question options have been utilized for different types of MCQs; "Matrix/Kprime" type for True/False MCQs, "multiple choice" for one best answer (OBA) questions, and "matching" type for extended matching questions (EMQ). The platform offers various built-in features to enhance the security of the examinations. These include password protection, restricting the number of attempts, and allocating an IP address to prevent unauthorized logging. The students are required to access the quiz by logging in through the designated desktops within IT laboratories in the University, under strict invigilation. Students were trained through formative assessments, which were held weekly during the modules.

Results

The utilization of Moodle-based MCQ examinations has been implemented since the establishment of the faculty. The feedback was positive from both the staff and students. The former found it easy to administer while the latter adapted easily over a paper-based system, perhaps stemming from their familiarity and experience with technology as a generation.

Power interruptions during examinations were a limitation. However, the Moodle platform automatically saves all quizzes attempted up to that point, and the "user override" option can be used to grant additional time to students as required. Another drawback is the absence of a precise method for automatic grading of True/False type MCQs to award negative marks, which requires manual marking while OBAs and EMQs are automatically graded.

Conclusion

Moodle-based MCQ examinations could be regarded as an innovative, efficient, reliable, secure, cost-effective and eco-friendly method to conduct assessments in medical education and thus far, there have been only a few challenges encountered. Hence, we suggest that this approach justifies its utilization, and it has the potential to address the challenges associated with paper-based examinations, especially in terms of safety, cost-effectiveness, and environmental sustainability.

The Level of Competency in Procedural Clinical Skills Among Pre-Intern Medical Graduates in Sri Lanka; A Self-Reported Assessment

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Keywords

Skill level, Competency, Medical graduates

Introduction

The goal of medical education is to create a graduate who is competent, compassionate and caring. The competency of procedural clinical skills of medical graduates plays a major role in delivery of optimal patient care. This study aimed to describe the level of competency in a set of selected procedural clinical skills among pre-intern medical graduates in Sri Lanka.

Method

A descriptive study was conducted among the pre-intern medical graduates of Sri Lanka in 2021. A self administered questionnaire was used and the participants were asked to self-rank their level of competency in procedural clinical skills from level 1 to 4 (level 1- unable to perform the skill and have not observed the skill, level 2- unable to perform the skill, but have observed the skill, level 3- able to perform the skill under supervision, level 4- able to perform the skill without supervision).

Results

Of the 625 samples, majority (68.5%, n=428) were females. Mean age of the population was 28.21 years. Highest number of graduates claimed level 4 skills on using a glucometer (81.1%, n=507), followed by venepuncture (66.9%, n=418), urinary catheterization (61.3%, n=383), obtaining a blood culture (59.8%, n=374) and arterial puncture for blood gas analysis (59.7%, n=373). Level 1 clinical skill was self-rated by a highest number of participants for venous cut down (27.7%, n=173) followed by insertion of a central venous catheter (14.6%, n=91), performing a pleural tap (9.6%, n=60), insertion of an intercostal tube (9.3%, n=58), removal of an intercostal tube (8.3%, n=52), defibrillation (7.7%, n=48) and performing a peritoneal tap (6.6%, n=41). Of the population, only 34.6% (n=216) had a level 4 competence on performing cardio-pulmonary resuscitation and only 28.8% (n=180) had level 4 competence on performing airway manoeuvres. Mean level of competence for transfusion of blood and blood products was 2.93. Intubation was self-rated as level 4 by 2.1% (n=13) of the population.

Conclusion

Considering the life-saving clinical skills, majority had level 3 or above competence in performing cardio-pulmonary resuscitation (86.7%, n=542) and airway manoeuvres (72.5%, n=453).

Raising the Student Voice: Advocating for Meaningful Student Involvement in Medical Education

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¹IFMSA, Denmark, ²Standing Committee on Medical Education, Faculty of Medicine, FMSA | International Federation of Medical Students' Associations, Hong Kong S.A.R.

Keywords

Meaningful youth engagement, Youth voices, Student-led initiatives

Introduction

Medical student involvement plays a pivotal role in the advancement of medical education. Beyond just providing feedback, their voices can introduce fresh perspectives and values to the discourse. Nevertheless, medical students have not received adequate instruction on the reasons and methods for their active participation. Students are always encouraged to focus on their studies rather than advocating for changes. Leading to medical education syllabus less learners orientated which reduces the effectiveness of delivery.

Listing for Short Communication Sessions

This student-led initiative aims to gather medical students in a learning environment where they get to apply Medical Education theory and Advocacy skills in drafting plans of action related to the topic.

Method

To bridge the gap in understanding student involvement, the International Federation of Medical Students' Associations Asia-Pacific Region has identified the advocacy of medical education as one of this year's regional priorities, aligning with key topics in the global focus of IFMSA such as Meaningful Student Engagement. This initiative was not only limited to cultivating the knowledge of student voice participation but also taking actions in shaping their medical education at local, national and regional levels.

Results

As part of the IFMSA's Meaningful Student Involvement Special Interest Group (SIG), a comprehensive advocacy strategy and corresponding objectives were devised, allocating a designated month to inspire students to proactively engage in reshaping their medical education.

The SIG had multiple outputs. Three Infographics and One video were posted on IFMSA social media platforms and reached approximately 80 students. Some posts had included a question poll and a total of 42 responses had been recorded.

There's also online sessions and discussions held, allowing participants to freely discuss their ideas and difficulties faced when advocating for medical education changes. These sessions had reached 254 students in the region. Moreover, a webinar session on IFMSA efforts in Global Health Education and Research Education was conducted alongside two student advocates reaching out to 123 students.

Apart from online interactions. In-person sessions were conducted at the IFMSA General Assembly March Meeting 2023 and Asia-Pacific Regional Meeting 2023 which engaged 41 students to develop their advocacy skills and enhanced participants' capacity to perform negotiations with stakeholders effectively.

In total, the SIG team has reached and engaged about 560 students within the Asia-Pacific Region from 13 countries.

Finally, there were five national projects conducted by national member organizations of IFMSA, precisely in India, Kazakhstan, Indonesia, and Thailand. These initiatives foster meaningful student engagement on a national scale.

Conclusion

IFMSA' regional campaign on meaningful student involvement aims to empower medical students in the Asia-Pacific region to develop advocacy skills that enable them to participate meaningfully in decision-making processes within their medical schools. These student-led initiatives also create a support system that encourages students to voice their opinions on their medical education systems as key stakeholders. We believe continuation of the process will help address students' needs and enhance the quality of medical education in the future as relevant stakeholders' ideas are considered. A continued follow up will be implemented to understand the difficulties faced during students' involvement.

The Relationship Between Screen Time Exposure and Migraine and Non-Migraine Headaches Among Undergraduates of Faculty of Medicine, University of Colombo; A Cross-Sectional Study

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Keywords

Screen time, Headache, Migraine with aura, Migraine without aura, Non-migraine headaches

Introduction

Headache is one of the most disabling conditions for men and women and Migraine is the commonest disabling condition among all headaches. High screen time exposure has a negative impact on overall health. University undergraduates have high exposure to the digital screens as well as higher prevalence of headache and migraine, especially in the Medical Faculties. Identifying the relationship between high screen exposure and headache will help them to prevent from headaches and thus possibly improve academic performance. This study aims to identify the relationship between screen time exposure and migraine and non-migraine headaches among Medical Faculty undergraduates of Colombo University.

Methods

A descriptive cross-sectional study was conducted in a sample of 200 (85 males, 115 females) in Faculty of Medicine, University of Colombo. Validated ID Migraine TM questionnaire was used to assess the distribution of headache (Migraine with aura, Migraine without aura and non-migraine headaches) and, a validated 18-item questionnaire was used to assess the distribution of screen time exposure across multiple devices in primary activity and as background use as the average daily screen time of past three months. Chi-square, ANOVA and independent sample t-test were performed during statistical analysis.

Results

Response rate was 100%, with majority (60.5%) reporting headaches during the past 3 months, which included migraine with aura (23.5%), migraine without aura (14.5%), and non-migraine headaches (22.5%). There were significant relationships between high screen-time exposure and migraine with aura ($p < 0.05$), high screen time exposure and migraine without aura ($p < 0.05$) as well as between high screen time exposure and non-migraine headaches ($p < 0.05$). Both headache frequency and screen-time exposure varied according to academic year ($p < 0.05$). No associations were found between screen-time exposure/headache and gender.

Conclusion

High-screen time exposure is associated with increased frequency of both migraine and non-migraine headaches among Sri Lankan Medical Undergraduates.

Knowledge Transfer Instruments in Preparation for Future Learning: A Randomized Controlled Study

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Keywords

Preparation for Future Learning, Knowledge Transfer, Productive Failure, Contrasting Cases, Conceptual Framework, Higher Order Learning Outcomes, Near-Peers, Multi-Arm Randomized Controlled Study

Introduction

The limitations of didactic lectures, as a mode of instruction to achieve higher order learning objectives, gives rise to the need for supplementary guided self-learning activities to facilitate students' achievement of higher order learning outcomes of those lectures.

The short-term effects of two different near-peer co-designed Moodle™-based self-learning tasks, that were designed to prepare third year medical students for future learning to achieve higher-order thinking skills following lecture-based instructions were evaluated.

Method

A simple randomization, non-intervention controlled, three-arm parallel-group study which was conducted on third-year medical undergraduates of the Faculty of Medicine, Peradeniya with a total sample size of 71 participants.

Results

Study participants were involved in contrasting cases (CC) conceptual framework (CF), and control (CTRL) groups. One-way ANOVA showed significant group differences ($F(2,68) = 3.47, p = 0.037$). Post-hoc tests indicated CC vs. CTRL difference ($p = 0.033$). Participant feedback showed varied perceptions of test difficulty and intervention value across groups. Assumptions of homogeneity and normality were met. Findings highlight diverse impacts of self-learning activities on knowledge transfer.

Conclusion

The study highlights significant group differences in knowledge transfer among medical students exposed to distinct self-learning interventions. Contrasting cases and control interventions demonstrated notable variations, supported by participant feedback. The findings emphasize the complexity of self-learning impacts and contribute to a comprehensive understanding of their influence on knowledge transfer.

Next Generation MBBS Graduates in the Context of AI at YLLSoM

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Keywords

Curriculum, Anatomy, Silent mentors, Human values

Introduction

In August 2023 Yong Loo Lin School of Medicine (YLLSoM) embarked on a brand-new curriculum. We impart humane values to our first year MBBS students along with core subjects like Human Anatomy, Human Physiology, Biochemistry, Pathology, Microbiology, Pharmacology, Immunology and Ethics.

Methods

At YLLSoM, Anatomy is taught using cadavers whom we address as silent mentors. These silent mentors in many respects are in fact the “first patients” whom our medical students get to interact with first. Without speaking a word, these silent mentors convey many life lessons to our medical students. We employ digital resources while imparting gross and microscopic anatomy, alongwith the Anatomage table, digital wall, and Complete Anatomy App.

Results

It is envisaged that when our students enter the clinical years and finally graduate from the Medical School, they are not just MBBS graduates but doctors with humane values who are compassionate and kind to their patients and treat them with dignity and respect. It is a lifelong commitment to uphold the highest moral values that society expects from the medical profession.

Conclusion

Incorporation of Artificial Intelligence in our new curriculum is planned, integrated with human values in the learning process. We will be sharing some preliminary findings at APMEC 2024.

Monday 15th January 2024

10.45 am – 12.15 pm

Virtual Room 3

Short Communication Session 3 – Student Wellbeing

Role-Play As an Effective Teaching-Learning Strategy to Introduce Professionalism for Medical Undergraduates of the Faculty of Medicine (FoM), University of Moratuwa (UoM)

Ushani Wariyapperuma, Sri Lanka

From Divine to Diminishing? Analyzing the Changing Role of Teachers Through the Humanitas Programme

Santhushya Fernando, Sri Lanka

The Perceived Influence of Sociocultural and Contextual Factors on Portfolio Learning

Ahmad Omer, Saudi Arabia

Factors That Impact Burnout and Psychological Wellbeing in Australian Postgraduate Medical Trainees: A Systematic Review

Belinda Balhatchet, Australia

Studying the Prevalence of Behavioral Primary Risk Factors Among Nursing Students

Sa Rina, Mongolia

Feminization of Medicine: A Scoping Review of Published Original Research Articles

Pathiyil Ravi Shankar, Malaysia

Prevalance of Internet Addiction and Its Relationship with Level of Physical Activity and Academic Performance Among Physiotherapy Undergraduates of Faculty of Medicine, University of Colombo

Chamika Livera, Sri Lanka

Breaking the Barriers: Students' Perspective on Equity, Diversity and Inclusion in Medical Education Systems Worldwide

Michelle Lam, Hong Kong S.A.R.

Role-Play As an Effective Teaching-Learning Strategy to Introduce Professionalism for Medical Undergraduates of the Faculty of Medicine (FoM), University of Moratuwa (UoM)

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Keywords

Role-play, Professionalism, Integrated TLAs, Early clinical exposure

Introduction

The MBBS curriculum of FOM, UOM is spirally integrated. Students are exposed to different aspects of clinical training early. Professionalism is a key program outcome which needs to be introduced early in the program; well ahead of commencement of clinical training. The Personal and Professional Development Stream (PPDS) and Clinical Sciences Stream (CSS) developed a new integrated teaching-learning activity (TLA) with the objective of introducing concepts on professionalism and ethics in the ward-setting among students, prior to commencement of conventional ward-based clinical training.

Method

Several intended learning outcomes (ILOS) and an introductory theme appropriate for this integrated TLA was identified jointly by the PPDS and CSS committees.

The ILOs expected the students to be able to demonstrate an optimum level of personal integrity, a good doctor patient relationship, personal values and self-appraisal skills and ability to work effectively within a team.

The above aligned with the MBBS program outcomes of professionalism and ethics, critical thinking skills and communication skills.

An interactive role-play TLA with was developed. Common themes clinicians and patients face in wards during clinical training of medical students related to professionalism and ethics were selected. The committee came up with five areas: dedication and responsibility, maintaining professional boundaries and appropriateness, reliability and accountability, respect and teamwork, ethical conduct (legal aspect and patient confidence). Five different role-play scripts were developed to match the above areas. Lectures on the above concepts were arranged prior to the TLA.

Results

The developed role-play scripts were shared among academic staff members and roles were assigned on a voluntary basis. Students were instructed to observe the role-plays and comment while staff members acted out the scenarios. Eight academic members role played the five scenarios in a session to the 101 students of the first batch After each role-play, students were offered a chance to discuss what they observed. The students were led to identify and critically analyze unprofessional and unethical behavior based on the role-play and prompted through questioning to cover the learning outcomes. There was active participation and contribution from the students during the discussion. They provided both positive and negative observations. The session concluded with an open forum discussion allowing academics to promote positive behavior, summarize and reinforce key points. The immediate measure of success of the TLA was apparent through reflective e-portfolio entries of students critically analyzing real life scenarios they observed in wards, based on the discussion carried out during the TLA.

Conclusion

Role-playing can be used as an effective TLA to integrate theoretical concepts of professionalism into clinical practice. While addressing the program outcomes and ILOs, it also offers the opportunity for students to apply their knowledge and skills into practice, early in their clinical training.

From Divine to Diminishing? Analyzing the Changing Role of Teachers Through the Humanitas Programme

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Keywords

Changing role of teachers, Humanitas, Artificial intelligence, Teacher-disciple relation

Introduction

In 2021 the Faculty of Medicine, University of Colombo launched the Humanitas Programme as an experimental programme using arts and humanities as main tools of teaching. The hypothesis was to trigger emotional responses leading to transformative learning to shift the world views of students. The two hour program targeted fourth-year medical students.

Method

We conducted a live program titled ‘Teachers: Divine? Difficult? Diminishing?’ exploring and challenging the prevailing cultured views on teachers. It was developed over a period through a series of deep discussions and reasoning amongst the authors. The performances in the arts (songs, poems, dramatizations and film clips) were selected by SL and SF to cover the three main concepts of ‘divine’, ‘difficult’ and ‘diminishing’ teachers to feature student-teacher relationships. The performances featured teachers as knowledge brokers, trainers, role models, life-long mentors or gurus. These concepts were approached from the prevailing viewpoints and the more indigenous southern Asian traditions of ‘guru- shishya’ (teacher-student) classifications. The evolving role of the teacher in the AI era was finally discussed. The performances were interspersed with intellectual inputs by a panel consisting a dramatist, actor-cum-academic (SL), a senior academic who conceived Humanitas (PK), a mid-career postgraduate trainee (MA) moderated by SF. The programme was mandatory for a 4th-year student cohort (n=230). The programme ended with an evaluation using a questionnaire with closed and open-ended questions.

Results

The attendance rate was 85.2%(n=196) with a 67.8%(n=133) response rate. Of them, 93.98% (n=125) reported a high level of enjoyment. Art content was rated ‘highly appropriate’ by 43.6% (n=58) and ‘appropriate’ by 48.9%(n=65), and 51.9%(n=69) reflected ‘a lot’ on the featured art while 36.1%(n=48) reflected ‘a little’. A strong shift in their views about the role of teachers was reported by 24.8%(n=33). Of the students, 89.5%(n=119) ‘strongly agreed’ or ‘agreed’ that they would like to have a mentor in their life. The programme made 92.5%(n=123) of students aware of the difficult dimensions of student-teacher relationships. The notion of a diminishing role of teachers as transmitters of knowledge in the age of AI was ‘strongly agreed’ upon by 12%(n=16); ‘agreed’ 46.6%(n=62); ‘disagreed’ 29.3%(n=39); ‘strongly disagreed’ 11.2%(n=15) . The importance of teachers to offer the human touch to the learning experience was ‘strongly agreed’ upon by 31.8%(n=42); ‘agreed’ 61.8%(n=82); ‘disagreed’ 3.9%(n=5); ‘strongly disagreed’ 2.5%(n=3) . Kindness, empathy, dedication, commitment, knowledge, competence and patience emerged as the main themes in the qualitative analysis on qualities students look for in their teachers.

Conclusion

Students enjoyed the Humanitas programme on teachers. It challenged their prevailing views on the role of teachers in the contemporary society, with almost a quarter shifting their views after viewing the program. Teachers are viewed as having multiple roles other than transmitting knowledge, and their roles are changing with the availability of AI. The core concept of Humanitas program is to use humanities and arts to trigger reflection and discussions to facilitate transformative learning. This approach could be used to explore other contemporary issues.

The Perceived Influence of Sociocultural and Contextual Factors on Portfolio Learning

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Keywords

Culture, Portfolio learning, Context

Introduction

Culture permeates all aspects of our lives and shapes our thinking and approaches to problems in everyday practice. Cultural research is well-grounded in the field of medical education where it helped understanding of some educational theories and phenomena in the medical profession. This study aims to investigate whether and how cultural backgrounds and contextual influences may impact students learning from portfolios.

Method

This is a mixed method study that involved medical students and their mentors in the portfolio process at the faculty of medicine at Prince Sattam bin Abdul Aziz University in Al-Kharj City in Saudi Arabia. Initially, we developed and validated a 34-item Likert-type scale questionnaire to measure the influence of culture and context on students' learning from portfolios using a Delphi technique. We interpreted culture according to the Hofstede's model and applied in instrument development the domains of power distance, uncertainty avoidance, individualism vs collectivism, and long term vs short term orientation. Contextual elements were grouped under influences from the formal and hidden curricula. In the qualitative part of the study, we underwent focus group discussion with medical students and interviewed their mentors in the portfolio exercise for in-depth analysis of participants' views about the study questions. The questionnaire data were analyzed quantitatively, and results were presented in the form of frequencies, means, and percentages. In addition, inferential statistics were done using multiple linear regression analysis. Focus group discussion and interviews were transcribed verbatim and analyzed thematically.

Results

Ninety eight students completed the online questionnaire (76% response rate). The internal consistency of the questionnaire items by Alpha Cronbach was 0.89. Students demonstrated weak power distancing (Mean 20.25 ± 2.67 , neutral point is 18), collectivism (mean; $1.44 \pm SD 3.44$), weak long term orientation (mean; $16.84 \pm SD 3.62$), neutral uncertainty avoidance dimension (mean; $18.72 \pm 3.94 SD$), and some influence of context on their learning (mean of formal curriculum; $14.15 \pm 2.56 SD$, neutral point is 12, and the mean for hidden curriculum; $26.3 \pm 3.91 SD$, neutral point is 24, respectively). Qualitative data provided more insight on the cultural attributes of students and how do these tend to influence students learning from the portfolio.

Conclusion

Culture influence many aspects of our lives and education is no exception. Understanding how cultural attributes and contextual factors impact students' learning from portfolios would contribute to better planning and utilization of learning documents in educational settings.

Factors That Impact Burnout and Psychological Wellbeing in Australian Postgraduate Medical Trainees: A Systematic Review

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Keywords

Burnout, Wellbeing, Postgraduate medical trainees, Systematic review

Introduction

Burnout and poor psychological wellbeing are common in postgraduate medical trainees. However, data relating to Australian trainees are lacking. This systematic review aimed to identify and synthesise relevant research on the factors that influence burnout and psychological wellbeing in Australian postgraduate medical trainees.

Method

A systematic PRISMA search was conducted across eight databases from January 2000 to September 2021. Empirical peer-reviewed studies were included if they focused on one or more factors influencing burnout and psychological wellbeing in Australian postgraduate medical trainees. Screening was independently conducted by two reviewers at each stage of the process. Results were synthesised and analysed using a convergent qualitative synthesis process structured according to the Job Demands-Resources model of occupational stress.

Results

Forty-eight papers were included in the final review. Factors impacting burnout and/or wellbeing (job demands) fell under four themes: (i) working hours and workload; (ii) the work and learning environment; (iii) inappropriate behaviour; and (iv) examinations and academic stress. A small number of job resources were identified.

Conclusion

Burnout and poor psychological wellbeing in Australian postgraduate medical trainees are most associated with long working hours and poor work and learning environments. There is limited research into resources that can protect against burnout and promote wellbeing. More longitudinal and qualitative research is needed to support systemic, long-term interventions that will improve the wellbeing of trainees, reduce the prevalence of burnout and ensure optimal patient care.

Studying the Prevalence of Behavioral Primary Risk Factors Among Nursing Students

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Keywords

Behavior, Risk factors, Prevalence, Student

Introduction

In 2015-2016 evaluation done by the United Nations specialized agency, non-communicable diseases accounted for 77.0% of all Mongolian people's mortality, of which 32.0% were in the 30-70 age group. Among the population of Mongolia, the death caused by diseases of the circulatory system and cancer has consistently occupied the first place in the last 20 years, and the number of people who died due to these diseases is increasing every year. As the primary source of data on prevalence of common risk factors for non-communicable diseases is the STEPS survey, Mongolia successfully conducted the survey in 2005, 2009, 2013, and 2019 according to WHO recommendations. According to the most recent STEPS-IV survey, 24.2% of the population aged 15-69 were smokers, and 3 out of 10 were current drinkers. In addition, it is noteworthy that 19.8% of the total population (28.2% of men and 11.5% of women) have the risky behavior of "excessive consumption" of alcoholic beverages. Therefore, we selected this study to investigate the primary risk factors of non-communicable diseases and behaviors of young people, who are studying in health sector.

The purpose was determining the prevalence of behavioral risk factors (alcohol, tobacco, second-hand smoke, fruit, vegetable, fat, salt consumption, physical activity) among nursing students.

Method

510 students studying "Bachelor of Nursing" at the School of Nursing were included in the study. WHO revised the step-by-step study questionnaire of Digestive Diseases in 2017 and team used the section STEPS IV study questionnaire which designed to meet the specific needs of Mongolia and the requests and requirements of the Government and the Ministry of Health to determine the behavioral primary risk factors.

Results

Based on the assessment of primary behavioral risk factors, 4.8% (11) of all students were current smokers, 72.2% (164) had consumed alcoholic beverages, 74.9% (170) had insufficient intake of fruits and vegetables, 20.3% had (46) lack of exercise. When studying the consumption of fruits and berries in 7 days of the week from the participants, 20.3% (46) consume them 0-1 times per week and 43.1% (98) consume them 2-3 times per week, which shows that the consumption of fruits and berries among all students is insufficient. When studying the 7-day consumption of vegetables, 31.3% (71) consumed them every day, 25.1% (57) 5-6 days a week, and 28.2% (74) 3-4 days a week. In a study of nursing students, consumption of fruits and vegetables was similar to that of the general population of the same age group. 82.8% (188) of the respondents used vegetable oil in their food and 10.6% (24) eat food prepared at home every day, 1.8% (4) 6 days a week, 8.8% (20) 5 days, 12.8% (29) 4 days, 19.8% (45) 3 days, 46.2% (105) are used less than 2 days respectively. When assessing the physical activity of the participants, 95 (41.9%) students engaged in high-intensity exercise and 114 (50.2%) students engaged in moderate-intensity exercise for more than 10 minutes in class and at work. On the other

hand, 81 (35.7%) students do high-intensity, 133 (58.6%) students do moderate-intensity physical activity, fitness or artificial exercise in their free time for more than 10 minutes, which indicates that they do more physical activity in their free time.

Conclusion

74.9% of the students who participated in the study had insufficient consumption of fruits, vegetables and fruits, 79.7% lacked exercise, 4.8% smoked, 13.7% were exposed to secondhand smoke every day and the total salt intake is high among students.

Feminization of Medicine: A Scoping Review of Published Original Research Articles

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Keywords

Female, Gender equity, Feminization, Workforce, Workplace, Policy

Introduction

There has been a steady growth of women in the medical profession globally in the last few decades. This review aims to provide an overview of original research published in the English language on the feminization of medicine in scientific journals over the last two decades from January 2003 to July 2023. The factors motivating an increasing number of women to choose medicine as a career, the implications of the increasing number of women entering medicine, challenges faced by female medical students and doctors, and issues of workforce planning and distribution of doctors are studied.

Method

A scoping review (SR) approach is adopted. Published English-language original research published between January 2003 to July 2023 is included. Studies in healthcare professions other than human western allopathic medicine are being excluded. The PubMed, Scopus, EBSCO Host, and Google Scholar databases are searched. The studies are analysed based on country, the type of study, the income level of the country, and the parameters being studied.

Results

As of 26 August 2023, a total of 42 studies have been included and analysed. Twenty-three of these (54.8%) were published after December 2013; 31 of these (73.8%) were conducted in high-income countries. One was conducted in countries with differing income levels. Most were cross-sectional questionnaire-based studies and only seven (16.7%) were qualitative studies. Two used mixed-methods methodology. Four were secondary analyses of data. The quality of the articles was also assessed using the appraisal of the cross-sectional studies checklist and the qualitative studies checklist. The quality of the studies varied. Most cross-sectional studies fulfilled at least 15 of 20 parameters. For qualitative studies, six studies were scored ++ and three were scored +.

Among the factors motivating women to enter medicine were economic considerations, contribution to nation-building, high parental pressure, high marriage value, lack of suitable professions, and high job security. Work-life balance, specialties that allow women to balance family and work requirements, and their experience during clinical postings in different specialties are important.

Studies mentioned women were less likely to work in rural areas, see a smaller number of patients, and perform a lesser number of surgeries. They are also more likely to take time off from work and work flexibly due to domestic commitments. Furthermore, women doctors claimed to face gender discrimination from both male patients and male supervisors. Creating a positive and non-discriminatory work environment, building and empowering female role models, allowing time off from work, part-time work options, leave of absence, and flexible working and training were mentioned.

Conclusion

Several factors motivate women to enter medicine and different specialties in increasing numbers. Women also face several challenges in the workplace regarding flexible working and parental leave. There are workforce and policy issues that must be addressed to advocate gender equality, diversity, and inclusion in healthcare settings and a supportive environment for women doctors. More studies from other than high-income countries are required to offer insights into social and cultural contexts.

Prevalence of Internet Addiction and Its Relationship with Level of Physical Activity and Academic Performance Among Physiotherapy Undergraduates of Faculty of Medicine, University of Colombo

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Key Words

Internet addiction, Level of Physical activity, Academic performance

Introduction

Internet addiction is one's inability to control internet using, which could lead to physical, psychological, and social difficulties. Physical activity is any bodily movement produced by skeletal muscles that requires energy expenditure. Academic performance is the measurement of student achievement across their academic subjects. Increased technology use among university students pose a risk of internet addiction (IA). Internet addiction is known to have a negative impact on level of physical activity (PA) and academic performance and vice versa. As there was paucity of data, this study was carried out to evaluate the prevalence of IA and its relationship with level of PA and academic performance in Physiotherapy undergraduates.

Method

Long form of International Physical Activity Questionnaire and Young's Internet addiction scale were used to assess PA and IA respectively. Academic performance was assessed by the recent written examination marks. These questionnaires were administered as a google form to all physiotherapy undergraduates (n=120) of the Department of Allied Health Sciences, Faculty of Medicine, University of Colombo (UCFM), using convenience sampling method. Data was analyzed using SPSS version 25, using chi square test. A P value <0.05 was considered significant.

Results

A total of 106 students out of 120 students returned completed questionnaires. As they were following inclusion and exclusion criteria they were selected for the study. The prevalence of IA was 68 (64.1%), of whom 48 (45.3%) had mild, 19 (17.9%) had moderate and 1 (0.9%) student had severe IA.

Listing for Short Communication Sessions

Twenty students (18.9%), had low, 45 (42.5%) had moderate, and 41 (38.7%) students demonstrated high level of PA. Nine (8.5%), 78 (73.6%) students, and 19 (17.9%) students had low, good, and excellent academic performance, respectively. Students with more IA had lower PA ($X^2=17.276$, $p=0.008$). There was no significant relationship between academic performance and IA.

Conclusion

Internet addiction level was inversely related to the level of PA among physiotherapy undergraduates of the UCFM though there was no demonstrable relationship between academic performance and IA.

Breaking the Barriers: Students' Perspective on Equity, Diversity and Inclusion in Medical Education Systems Worldwide

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Keywords

Equity, Diversity, Inclusion, Advocacy, Meaningful student involvement

Introduction

The implementation of Equity, Diversity, and Inclusion (EDI) principles in medical education facilitates fair accessibility, nurtures cultural proficiency, lessens health inequalities, encourages creativity, enhances patient care, broadens the global outlook, and tackles ethical issues. It ultimately equips future healthcare professionals to be more inclusive and equipped to handle diverse patient requirements and complex healthcare obstacles. The COVID-19 pandemic has brought to light global health disparities, underscoring the significance of medical education to cater to all backgrounds and equip students to serve diverse patients. It is necessary to consider the student voice when improving medical curricula in promotion of an inclusive and socially accountable medical education. We strongly believe that embracing EDI allows medical schools to effectively cater to a diverse community and have a faculty that reflects the population it serves. Active involvement of students is crucial in designing, reshaping, and assessing medical education programs that promote the principles of EDI.

Method

IFMSA established a Working Group to develop and promote the Equity, Diversity, and Inclusion (EDI) Global Assessment. The survey was distributed to medical students globally and covers questions on the promotion of EDI in medical schools related to its environment, resources, educators, assessment and evaluation, curricula and support systems as well as the students' perception on its inclusion. The aim is to have a better understanding of the current status of EDI in medical education systems around the world to better inform advocacy efforts. Following a literature review, the working group also drafted an evidence-based toolkit to assist students in implementing EDI-related activities.

Results

IFMSA conducted a global assessment of medical students' knowledge and understanding of the principles of Equity, Diversity, and Inclusion (EDI) and their satisfaction with its incorporation in their medical education system. A comprehensive analysis of the EDI Global Assessment relevant to the Asia-Pacific region will be presented at the conference.

Listing for Short Communication Sessions

To further support EDI promotion, the toolkit developed emphasizes on the key principles of EDI and its relevance to healthcare and medical education. It provides case studies on implementing EDI in medical schools and guides medical students in advocating for involvement to achieve EDI and address bias and discrimination in healthcare settings. The toolkit will be shared with IFMSA's 137 National Member Organizations worldwide.

IFMSA has also developed an EDI policy document calling for institutions to ensure diversity through an equitable and inclusive admission process and equip their students and staff with EDI knowledge, attitude, and skills, including through their curriculum. The document highlights the Federation's position on EDI and urges stakeholders to be accountable for EDI.

Conclusion

We strongly believe that embracing Equity, Diversity, and Inclusivity (EDI) allows medical schools to effectively cater to a diverse community and have a faculty that reflects the population it serves. Active involvement of students is crucial in designing, reshaping, and assessing medical education programs that promote the principles of EDI. We hope the survey results and toolkit can support students in such advocacy efforts.

Listing for Short Communication Sessions

Monday 15th January 2024

10.45 am – 12. 15 pm

Virtual Room 4

Short Communication Session 4 – Innovative Practice and Simulation

Interactive and Innovative Large Group Teaching

Girija Sivakumar, Mauritius

Developing a Medical Improv Elective Course for Pre-Clinical Medical Students in Japan: A Pilot Programme

Kentaro Okazaki, Japan

Experience of Using Digital Learning Platforms to Share Expertise Beyond Geographical Barriers in a Medical School in Sri Lanka

Roshini Murugupillai, Sri Lanka

Simulated History Taking and Examination as a Part of Early Clinical Exposure in Undergraduate Medical Education of Faculty of Medicine, University of Moratuwa

Nadhee Peries, Sri Lanka

An Eye Opener on Hospital Planning for a Mass Casualty Incident Management for Medical Undergraduates

Ishanka Talagala, Sri Lanka

Development of a Locally Made Simulation Arm for Training in Intravenous Cannulation and Phlebotomy for Medical Students of Faculty of Medicine, University of Moratuwa, Sri Lanka

Nadeeja Samarasekara, Sri Lanka

Role of ChatGPT in the Development of an Interprofessional Educational Module for Better Antenatal Oral Health Care

Swet Nisha, India

Beyond Human Intelligence: Navigating the Ethical Challenges of Artificial Intelligence Tools

Mahwish Arooj, Pakistan

Interactive and Innovative Large Group Teaching

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Keywords

Large group teaching, Interactive teaching, Didactic

Introduction

Since decades, one of the teaching methods followed while address a large group is didactic lectures. In early decades when a smaller number of students were there, it was manageable by medical teachers to bring the attention of students towards their lectures. As the days go on, with the increase in the number of student admission, exposure to gadgets and social media, parental pamper etc, it

has become a biggest challenge for all medical teachers to manage the crowd and to attract the attention of medical students especially in first year. The medical teachers are now in need of newer and innovative teaching learning methods to attract students' attention and to make them participative in large group teaching. The present work was carried out to determine behavioural outcome and maximum participation by students in a large group teaching.

Method

60 first year medical students were selected for the study. 10 anatomy lecture topics were selected based on the regular teaching schedule. 5 topics were delivered through traditional way of didactic teaching in lecture hall. 5 topics were delivered in a Another 5 topics were delivered using interactive and innovative way to the same set of students. Both the sessions were conducted by the same teacher. Innovative and interactive teaching methods include the cafeteria classroom, making of concept mapping, body drawing, spot test, take home message etc. At the end of this experiment, a standardised questionnaire containing close and open-ended questions was administered.

Results

Data collected through questionnaire were tabulated and analysed. Quantitative data analysis was done using student T-test and qualitative data analysis was done using content analysis. The results revealed that cafeteria classroom had influenced the students especially the slow learners and introverts to actively participate in learning process. Concept mapping and body drawing encouraged the students to get actively engaged in classroom learning. Qualitative data analysis revealed that the activities and the cafeteria classroom arrangement supported the participants to have an active interaction. Data results revealed that the innovative and interactive classroom teaching had a great impact on students' learning behaviour in a large group teaching.

Conclusion

With the increase in the demand to attract students' attention and to make them more participative in large group teaching, there is a need for a paradigm shift in teaching large group of students. changing the teaching style towards student-centred and the classroom arrangement will greatly enhance students participation in learning which will help them to overcome inhibition and introvert behaviour in a large group teaching-learning process.

Developing a Medical Improv Elective Course for Pre-Clinical Medical Students in Japan: A Pilot Programme

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Keywords

Medical improv, Elective course, Communication, Humanities, Pre-clinical medical students, Pilot programme, Japan

Introduction

In recent years, humanities have become increasingly important in medical education, and various elements of the arts have been introduced. One of these is improvisation as applied improv. There are precedents for the introduction of applied imorov in medical education (medical improv) in the context of communication, empathy, professionalism, leadership, resilience, wellbeing, feedback, etc.

Listing for Short Communication Sessions

However, most of these precedents have been reported from North America and very few from Asia to date. In Japan, hierarchical relationships based on age, job title, position, gender, etc. are rigid, and teachers and students are often in a master-servant relationship. These relationships can impede communication to realize patient-centred care, medical safety and multidisciplinary collaboration.

Thus, we have developed a pilot programme of medical improv classes for preclinical medical students focusing on communication.

Method

The method was a questionnaire-based survey in the elective course "Introduction to Communication", which was offered to second-year medical students at Kyushu University, in the summer semester of 2023.

The students were asked to submit an online reflection sheet after each class and answer an unmarked post-questionnaire right after the last class. Reflection sheet entries were analyzed qualitatively, while post questionnaire responses were analyzed using descriptive statistics.

The classes were conducted every Friday afternoon for 180 minutes and lasted for four consecutive weeks. One external lecturer, a specialist in primary education and an experienced improviser and one medical faculty, an internist specializing in medical education with some experience of improv collaborated in running the classes. The goal of the class was to learn the basics of communication skills through improv experiences.

Results

All the 14 participants were male, the average attendance rate was 91%, the average response rate to the reflection sheet was 84% and the post-questionnaire was 92%.

On a five-point Likert scale, the enjoyment of the class, the freshness of the improv format and the enjoyment of the improv format were 4.8, 4.6 and 4.5, respectively. Most indicated they had learned the following elements well (4 or more points): communication skills (100%), empathy (82%), wellbeing (82%), team building skills (91%) and leadership (91%). The overall satisfaction with the classes averaged 4.8.

Reflection sheets revealed references to enjoyment, physicality, participation, heterogeneity, communication, achievement, restoration of self-esteem, change of mindset from initial anxiety and worry to discovery of self-competence, a place where psychological safety is guaranteed, leadership and positivity, peer interaction and self-reflection. Some students also mentioned the potential for application in everyday life and in medical settings.

Conclusion

The report describes the organization of an improv class for second-year medical students in Japan.

The participants were highly satisfied, and it was clear that they experienced not only communication but also various elements of improv, leading to self-reflection. In addition, the participants were impressed by the applicability of the course in their real lives and in their future clinical practice and post-graduation clinical settings. In the future, we intend to improve the course content based on these results and follow up the participants longitudinally to see the long-term effects.

Experience of Using Digital Learning Platforms to Share Expertise Beyond Geographical Barriers in a Medical School in Sri Lanka

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Keywords

Medical education, Learning Experiences, Digital platform, Learning environment, Videoconference, Zoom

Introduction

Medical education witnessed a paradigm shift in the learning environment more rapidly during the Covid-19 global pandemic. An array of digital platforms besides traditional classrooms is being used for teaching-learning activities. Students' feedback on the learning platforms at different timelines helps to diagnose and improve their learning environment to provide them a better learning experience. This study aimed to assess the undergraduates' perception on their learning experiences at Faculty of Health-Care Sciences (FHCS), Eastern University Sri Lanka using videoconference and Zoom platforms at two different timelines.

Method

A comparative research was conducted at FHCS using two studies conducted at different time points using two different digital learning platforms videoconferencing and Zoom respectively. The study population in both studies included medical undergraduates who had teaching-learning experiences with either videoconference or Zoom. Self-administered questionnaire with open ended questions were used to collect data at both instances. Comparative analysis was done using thematic analysis approach and emerging themes were categorized.

Results

Transition in Teaching-Learning, learning environment and technology related glitches were the three core themes emerged across data sets. Study revealed mixed perceptions with more positive insights towards the feasibility of learning via DLPs. An overarching theme of 'digital challenges' bridged the above three core concepts, explaining the challenges faced in each themes. 'Transition in Teaching-Learning' highlighted pedagogical challenges faced by students when they felt intimidated by the DLPs to converse with teacher. This sense of discomfort was apparently exacerbated by the novel situation of talking to a camera. Despite this uneasiness, enthusiastic participation in discussion was possible with friendly mannerism of the teacher. In 'Learning environment' theme, students consider DLPs as an appropriate teaching tool in comparison of DLPs with that of a classroom session in terms of achievement of learning objectives, and prefer more sessions in future along with classroom activities. Students also stated that videoconference and Zoom allowed interaction. 'Technology related glitches' highlighted that despite a relatively good quality of audio and video, some sessions suffered occasional poor connectivity, where the picture froze but the audio remained stable and frequent disconnections were slight annoyance in both DLPs. The overarching theme of 'digital challenges' underpinned challenges in digital transformation such as lack of expertise in handling devices/software, unavailability of devices and financial constraints in buying devices and data packages.

Conclusion

Both videoconferencing and Zoom are useful digital learning platforms for medical education especially when there's a need to connect geographically distal teacher and students. Medical undergraduates' perception of learning experiences using digital platforms is mixed.

Simulated History Taking and Examination as a Part of Early Clinical Exposure in Undergraduate Medical Education of Faculty of Medicine, University of Moratuwa

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Keywords

Simulated learning, History taking, Examination, Early clinical exposure, Medical education

Introduction

MBBS program of Faculty of Medicine (FOM), University of Moratuwa (UOM) consists of three phases: Phase 1 (1st/ 2nd years), Phase 2 (3rd/ 4th years), Phase 3 (Final year). During phase 1, students learn basic sciences integrated into modules; in phase 2, students learn applied sciences integrated into clinical subjects in modules, along with ward-based clinical training. Phase 3 consists of fulltime clinical training.

The objective of introducing early clinical exposure (ECE) was to expose students of phase 1 and early stage of phase 2 to an early clinical skill training via various methods, in which, simulation-based history taking and examination were major components, because it is beneficial for students to relate theory in clinical practice.

Method

FOM UOM has developed a spirally-integrated, simulation-based program named Early Clinical Exposure Program for students from 1st year onwards to facilitate step by step, yet, continuous mastering of concepts and skills of history taking and examination. ECE program runs in three stages: stage 1 (during phase 1), stage 2 (conducted at the beginning of phase 2 prior to the commencement of ward-based clinical training), & stage 3 (during the latter part of phase 2 and phase 3).

In stage 1, students learn history taking and examination in relation to building a rapport and gather information using communication skills while appreciating patient privacy and concerns within the relevant body system-based modules.

During stage 2, which spanned over 8 weeks, history taking sessions were revisited where learning outcomes were designed to reach higher skill levels. At this stage, simulated history taking and examination were designed to introduce concepts such as identifying problems, critical thinking, and clinical reasoning to focus on differential diagnoses. Students were taught to recognize the patient as a 'whole human being' rather than presenting health issue/disease.

Stage 3 is simulation skill lab-based learning to reinforce their skills and learn other procedural skills.

Results

Outcomes of stage 1 and 2 of this program were achieved via small group role-playing between students and lecturers. Every student was given adequate time to practice with constructive feedback from teachers and observers.

The scenarios were developed to ensure students follow a basic history taking framework and step-wise method to system examination to gather relevant information on symptoms, aetiology, complications, systemic inquiry, compliance, family history, drug history, allergies, co-morbidities, patient concerns, impact on life and fears etc. Furthermore, students were encouraged to relate the most applicable components of the history in relation to patients and his/ her presentations appreciating they have different concerns either related to or not related to the main complain which needs to be considered.

Conclusion

Simulation is used to teach skills needed for students to take a proper history and to examine a patient before commencing ward-based learning. This spirally-integrated learning exposure facilitates student preparedness for clinical training. ECE aligns with the MBBS program learning outcomes by teaching; clinical skills, patient management, communication skills, information management, critical thinking, professional values and attitudes.

An Eye Opener on Hospital Planning for a Mass Casualty Incident Management for Medical Undergraduates

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Keywords

Mass casualty incident, Simulation exercise, Hospital planning, Preparedness, Disaster Management, Medical, Undergraduates, University of Moratuwa, Sri Lanka

Introduction

A mass casualty Incidence (MCI) can be described as an event that overwhelms the local and even regional resources. Lessons learnt from recent events like floods, landslides, Easter-Sunday attack, COVID-19 indicated the immense importance of effective hospital preparedness and planning to manage such MCIs. Medical undergraduates are the future of an effective and efficient healthcare system. Therefore, it is imperative that they are knowledgeable on hospital preparedness to manage MCIs. Thus, a simulation exercise was conducted on an MCI, based on which the importance of effective hospital planning was taught to the medical undergraduates.

Method

The Department of Community Medicine and Family Medicine, Faculty of Medicine, University of Moratuwa, in collaboration with the Department of Surgery and two Postgraduate Diploma holders in Disaster management, planned and conducted a MCI simulation exercise. The case scenario was a bus accident resulting in a MCI. Considering the limited resources to get actors as victims, several students were identified to act as victims, and their trauma condition was explained to them. The injuries were indicated by using body paint. Several other students were identified as family members of the victims, villagers and media personnel. Few others were identified to act as the health minister

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and his staff. These students were explained how they need to act according to the situation and their role, and simulate a realistic/chaotic situation on site as well as at the 'hospital', hospital entrance, ETU, triage area and at the hospital Directors' office.

Other students were identified to act as the area police officers, hospital police officers, the triage-commander, ETU doctors, ETU nurses, personnel in the hospital exchange, other medical officers and nurses of the hospital, hospital security, health assistants, hospital director and his staff. These students were unaware of the case scenario and were uninformed of how they are expected to manage the MCI. All students were given tags with their role prior to the simulation.

The relevant areas of the hospital e.g. ETU, hospital exchange, triage area, Directors office and the disaster management cupboard were identified prior to the simulation. The 'disaster cupboard' was equipped with the necessary consumables, tags, papers and equipment.

The news of the MCI was given to them while they were attending a lecture by an unknown person and they were asked to manage the MCI according to their role.

Results

Students enacted their roles accordingly and the whole scenario was photographed and recorded with their prior consent. A review of their actions – each category- was discussed with the students with the photographic evidence and the gaps and methods to improve were identified by them-selves. Effective hospital planning for MCI management and the importance of its dissemination, regular training and drills were emphasized by them-selves.

Conclusion

Using a simulation exercise allowed the medical undergraduates to learn the importance of hospital planning in a more effective manner.

Development of a Locally Made Simulation Arm for Training in Intravenous Cannulation and Phlebotomy for Medical Students of Faculty of Medicine, University of Moratuwa, Sri Lanka

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Keywords

Simulation, Arm, Cannulation, Phlebotomy, Clinical orientation, Sri Lanka, Locally made

Introduction

Intravenous cannulation and phlebotomy are essential clinical skills that healthcare professionals must master to ensure patient well-being and efficient medical care. Traditional methods of training often rely on live patients, posing inherent risks and ethical challenges. This article presents an innovative approach to clinical training using custom-made simulation materials designed for intravenous cannulation and phlebotomy procedures for the undergraduate medical students of faculty of Medicine, University of Moratuwa during their clinical orientation program before starting the hospital based clinical training.

The development of this simulation-based training program begins with an assessment to identify the specific learning outcomes of phlebotomy, insertion of an intravenous cannula, and setting up an

intravenous infusion. Simulation scenarios encompass the consenting, correct technique, and safety in procedure.

The commercially available venipuncture simulation arms are expensive and cost around one million Sri Lankan Rupees (LKR) and not readily accessible in resource-limited settings. As an emerging medical faculty, we faced the challenge of purchasing these simulation materials during the economic crisis of the country.

Method

The simulation arm was developed using readily available materials, including silicone rubber tubing as artificial veins, a fiber based upper limb and synthetic skin. A pump system was integrated to replicate blood flow using red coloured water. The estimated cost to make this arm was LKR 20,000. The locally made simulation arm demonstrated realistic anatomical features and palpable veins suitable for identifying suitable sites for venipuncture. The pump system allowed for adjustable blood flow, enabling learners to practice venipuncture technique. The simulation arm enabled learners to practice on an anatomically accurate model without compromising patient safety.

Results

A validation study was conducted using the simulation arm beforehand. Participants reported high levels of satisfaction with the simulator's realism and functionality. They found it to be a valuable tool for skill acquisition and refinement. Instructors are trained to provide effective guidance, feedback, and assessment during simulation sessions. Objective evaluation tools, such as checklists and rubrics, are utilized to assess learners' performance accurately.

Feedback from participants is collected and analyzed to continually refine and improve the training program. Maintenance and updates of simulation materials and equipment ensure that the training remains up to date with the latest best practices and guidelines in intravenous cannulation and phlebotomy.

Conclusion

This training program recognizes the potential of using simulation technology, in diverse clinical scenarios and provide learners with valuable insights into patient care. The locally made simulation arm for venipuncture training offers an affordable and accessible alternative to commercial simulators. Its anatomical accuracy, realistic skin texture, and adjustable blood flow make it a valuable resource for healthcare education and training programs, particularly in resource-limited settings. This innovative approach enhances learners' skills, improves patient safety, and empowers students to excel in their clinical practice before starting hospital based clinical training.

Role of ChatGPT in the Development of an Interprofessional Educational Module for Better Antenatal Oral Health Care

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Keywords

Interprofessional education, Antenatal oral care, ChatGPT, Artificial Intelligence

Introduction

Pregnancy may increase the risk of developing oral diseases especially periodontal disease and dental caries, both diseases are largely preventable. Oral health promotion within an integrated care approach can help in reducing the prevalence of oral disease. Such promotions can be accelerated by means of oral education. Interprofessional education (IPE) appears particularly appropriate for creating awareness, early screening, creating awareness, early screening, and management of oral diseases during pregnancy. The development of an educational module related to antenatal care can be a game changer in promoting oral health. ChatGPT is a chatbot developed by Open Artificial Intelligence which can be applied to support in designing an educational module and their assessment. The aim of the present study was to explore the effectiveness of ChatGPT use in the development and evaluation of an Interprofessional educational module for antenatal oral care.

Method

A mixed-method approach was considered for this study. Qualitative approach for evaluation of need assessment of the study. Two Focus group discussions were performed 1) among IP team members (3 obstetrics and gynaecology department faculty members, 3 dental faculty members, 3 medical nurses, 3 dental nurses, and 3 pregnant women) 2) 22 pregnant women. Readiness for Interprofessional Learning (RIPLS) was performed among the 180 medical and 83 dental students. Module preparation was planned and ChatGPT was used as a method of evaluation of assessment and its effectiveness was assessed using validated pre and post-test Questionnaires.

Results

Thematic analysis revealed barriers to dental service utilization among pregnant women under emerging themes: Lack of knowledge and misbelief, cost of dental care, physiological changes, fear and other psychological conditions, time constraints, dentists' unwillingness to accept pregnant women treatment, cultural taboos, and lack of interprofessional collaboration. Students showed readiness toward teamwork and collaboration. ChatGPT emerged to generate exercises, quizzes, and scenarios that can be used in the classroom to help practice and assess. Its ability to generate translations, explanations, and summaries can also be used to help in making complex learning material easier for students to understand. Further, it was effective in creating virtual tutors or assistants that can answer students' questions as well as provide feedback on their work.

Conclusion

Focus Group Discussion analysis shows that training dental and medical students in antenatal oral health care is essential. ChatGPT can be used as an aid in designing Interprofessional educational modules related to antenatal oral health care and can help in the effective execution of the module.

Beyond Human Intelligence: Navigating the Ethical Challenges of Artificial Intelligence Tools

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Keywords

Chatbots, Medical education, Ethical

Introduction

Artificial intelligence (AI) is advancing at an unprecedented pace and has the potential to transform our lives in ways that were previously unimaginable (Ouchchy et al., 2020). It has become an integral

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part of our daily lives, from virtual assistants like Siri and Alexa to advanced medical diagnosis systems, and has emerged as a transformative technology with the potential to revolutionize various aspects of human life, ranging from healthcare to education (Stahl, 2021). The term "chatbot" refers to software that uses artificial intelligence to interact with people in natural-sounding language. Chatbots can respond to different types of questions and requests to provide information or complete transactions. As the technology continues to improve, chatbots are becoming increasingly sophisticated and are being integrated into a wider range of applications. In the coming years, we can expect to see chatbots used for everything from education to entertainment. There are fears that AI chatbots will replace or diminish human intelligence.

ChatGPT is one of the example of chatbot that is rapidly advancing and gaining ground and is increasingly being used to interact with humans. However, as AI technologies continue to evolve and become more sophisticated, this rapid progress also raises significant ethical challenges that must be addressed to ensure the safe and responsible development and deployment of AI technologies.

Method

Data collection will be conducted through focus groups. The study will be conducted over a period of 6-9 months, including the recruitment of participants, data collection, and analysis. The focus groups will be conducted with small groups of participants (faculty and students) and will be moderated by the research team. The interviews will be recorded and transcribed for analysis.

Results

The qualitative content analysis of the focus group data revealed several significant patterns and themes related to the ethical implications of using ChatGPT and similar language models in medical education:

Participants expressed concerns about the potential for bias in the information provided by AI chatbots. They highlighted the importance of ensuring that the content delivered by these models is accurate, up-to-date, and free from bias. recognizing the educational potential of ChatGPT in providing quick access to medical information, participants debated the extent to which students and practitioners should rely on AI for learning. There was a consensus that while chatbots can be a valuable supplement, they should not replace critical thinking and traditional learning methods.

Conclusion

The study underscores the rapid integration of AI technologies like ChatGPT in medical education and the pressing need to address the associated ethical challenges. The concerns raised by participants reflect the delicate balance between the benefits and risks of using AI in a critical domain such as healthcare education. To navigate these challenges, it is imperative to develop comprehensive guidelines and regulations that govern the use of AI chatbots in medical education.

Listing for Short Communication Sessions

Monday 15th January 2024

1.30 pm – 3.00 pm

Virtual Room 1

Short Communication Session 5 – Teaching and Learning

Genomic Insights to Medical Curriculum: Assessing Sri Lankan Medical Students' Knowledge and Attitude Towards Genomic Medicine and Pharmacogenomics

Dilini Kekulandara, Sri Lanka

Publications in Selected Medical Education Journals According to the Income Status of the Country of Affiliation of the First Author and the Corresponding Author

Pathiyil Ravi Shankar, Malaysia

Perception of Academics on 'Student-Centered Learning' in a Newly Established Medical School in Sri Lanka: A Qualitative Study

Udayangani Ramadasa, Sri Lanka

Team Based Learning - Course Administrators as Part of the Teacher Team

Linda Lindell, Sweden

Analysis of Students' Essays

Uzmee Mendsaikhan, Mongolia

The Flipped Classroom Navigator©: A Web-Based Tool for Promoting Flipped Classroom in Health Professions Education

Punithalingam Youhasan, Sri Lanka

The Dynamics of Professional Identity: A Cross-Sectional Study of Dental Undergraduates at the University of Peradeniya, Sri Lanka

Sithmi Samaraweera, Sri Lanka

Introduction of Medical Humanities in Undergraduate Medical Program

Karma Tenzin, Bhutan

Genomic Insights to Medical Curriculum: Assessing Sri Lankan Medical Students' Knowledge

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Keywords

Attitude, Pharmacogenomics, Genomic medicine, Knowledge

Introduction

Genomic medicine (GM) and pharmacogenomics (PGX) are emerging practice in medicine that play vital role in providing personalized and efficient treatments for patients. GM uses an individual's genetic profile to guide the decisions to disease prevention, diagnosis, and treatments. PGX explores

how genes influence an individual's response to drugs which enables the development of safe and effective medications based on their genetic makeup.

Given the significance of modern medical advancements, many studies have been conducted worldwide to measure the knowledge and attitude of GM and PGX in medical and health science undergraduates and health professionals and have introduced genomic insights to their medical curriculum. However, as the medical curriculum of Sri Lanka is predominantly based on traditional concepts and content, knowledge and attitude of these concepts has not been assessed or the concepts have not introduced in Sri Lanka for the better advancement in the medical education.

Herein, we assessed the readiness of introducing genomic insights Sri Lankan medical curriculum by exploring the knowledge and attitude GM and PGX of the students of Medical Faculty of Wayamba University in Sri Lanka, being a newly developed and diverse institution seeks research findings to enhance the curriculum and teaching-learning activities aiming to produce competent graduates.

Methods

A questionnaire, as Google form was distributed across all five student batches at Faculty of Medicine, Wayamba University of Sri Lanka. The collected responses were subject to detailed analysis. The awareness on GM and PGX was determined with scores assigned within a range of 0 to 12, reflecting correct answers for the 12 questions given in the questionnaire. These scores were subsequently ranked into distinct categories: >10 (Excellent), 10-8 (Good), 8-5 (Average), and <4 (Poor).

Results

The data of the study demonstrated an average awareness on GM and PGX among Wayamba University's medical students; according to the predefined cut-off criteria, denoted by a mean score of 6.96. Analysis across different academic years unveiled no significant variation in knowledge acquisition; suggesting that our current curriculum does not influence the knowledge on GM and PGX in the students. A nuanced variations in attitudes towards GM and PGX was observed depending on specific questions we asked. 37% of the students exhibited a positive attitude towards GM and PGX, displaying a notable willingness to engage in genetic research. Furthermore, similar percentage of the students have a positive attitude to attend seminars or courses on genomic medicine and PGX. 39% of the medical students are willing to use patient's genetic information to guide their decision in clinical practice in the future. However, worries regarding potential adverse repercussions on personal health due to the sharing of genetic data were expressed by 55% of the students. Moreover, a majority (57%) of the students exhibited reluctance in permitting the scrutiny of their genomes concerning potential complications on medical insurance. 48% of the students believed that the implementation of GM and PGX in Sri Lanka is premature.

Conclusion

The study findings underscore an average level of knowledge on GM and PGX among medical students, consistently distributed across varying academic levels. However, their perspectives regarding GM and PGX has space to be improved. These insights emphasize importance of improving our curriculum by incorporating novel topics for future landscape of medical practice.

Publications in Selected Medical Education Journals According to the Income Status of the Country of Affiliation of the First Author and the Corresponding Author

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Keywords

Bibliometrics, Income, Medical education research, Journals

Introduction

Most of the global population and health professions institutions are located in low-income and middle-income countries. Scholarship in teaching-learning is dominated by institutions in high-income countries. We researched the status of medical education publishing according to income level in top-tier medical education journals that expressly state their objective to represent global perspectives and opinions. The distribution of publications in selected medical education journals according to the income status of the country where the affiliated institutions of the first author and the corresponding author were located during the period from 2020 to 2022 were studied.

Method

The Scopus quartile one (Q1) journals Academic Medicine, BMC Medical Education, Medical Education, Medical Education Online, Medical Teacher, and Teaching and Learning in Medicine were explored. The details noted were the year of publication, the type of article, the journal's name, and the income status of the country of the first author and the corresponding author. The countries were classified according to income level as high income, upper middle income, lower middle income, and low income. The World Bank New Country Classifications by income level 2022-2023 was used to classify countries. The number of articles and types of articles were tabulated according to the year of publication. The country/countries of affiliation of the first author and the corresponding author were tabulated according to the journal.

Results

There were 5714 unique articles published. There were 30 instances where the authors had multiple affiliations in countries of differing income levels and the articles were duplicated/triplicated providing a total of 5750 articles. The journals Academic Medicine and BMC Medical Education published the maximum number of articles. There has been a steady growth in the percentage of articles published by the open-access journal BMC Medical Education. An overwhelming percentage of manuscripts (87%) had first authors from high-income countries, while 7.6% were from upper-middle-income countries and 4.5% were from lower-middle-income countries. Only 0.8% of the authors were from low-income countries. BMC Medical Education had the maximum percentage of authors from low and middle-income countries while the journal Academic Medicine had the lowest percentage. Again in 87.3% of cases, the corresponding author was from a high-income country. When examining the type of article and the income level of the country of affiliation of the first author, 81.1% of research articles had a first author based in a high-income country. For reviews and letters to the editor, the percentages were 95.2% and 96.1% respectively. The section Really Good Stuff in the journal Medical Education had 89.9% of authors from a high-income country.

Conclusion

This research conducted in 2023 shows nations having most of the world's population and medical schools are significantly under-represented in publications in the selected journals. This is a matter of concern and requires further study. Measures are required to strengthen medical educational research and increase acceptance rates from middle and low-income countries.

Perception of Academics on 'Student-Centered Learning' in a Newly Established Medical School in Sri Lanka: A Qualitative Study

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Keywords

Student centred learning, Academics, Teaching learning activities

Introduction

Student-centred learning (SCL) keeps the learner in the spotlight while the teacher facilitates independent learning. Teaching-learning activities such as portfolios, reflective writing, active learning activities, simulations, assignments, and role plays encourage problem-based learning and case-based learning. These enhance the abilities of critical and creative thinking, clinical reasoning, making judgments, and also greater retention of knowledge and deeper understanding. The Faculty of Medicine, Sabaragamuwa University of Sri Lanka (FOM/SUSL) is a new medical school that is shifting from a discipline-based approach to integration. This study was done to describe the perception of academics of FOM/SUSL on SCL in different disciplines and obtain feedback to revisit teaching-learning activities to facilitate SCL. Specifically, the strengths and weaknesses of SCL were assessed, and the appropriate student-centred teaching/learning methods for each discipline as perceived by the academics.

Method

A qualitative study was done among the 25 academics from all three phases of the FOM/SUSL. A brainstorming session was carried out to familiarise participants with SCL. The moderator explored key questions that needed to be focused on the application of SCL. This led to the sequencing of more focused, predefined, open-ended, and simple questions to encourage a conversation. The thematic analysis method was used to analyse the qualitative data on inductive themes. The collected data was closely examined and identified for common themes.

Results

Several themes were generated which included views on introduction, challenges in academic and student perspectives, teaching-learning activities, large group activities, student resistance, and self-studying. Perceptions of teachers on SCL were reflected to be of active student participation. Further, there was a yearning for a transition from traditional teacher-centred approaches. There were several challenges identified, and these include the difficulties faced by students when transitioning from teacher-centred learning which they are familiar with, to more SCL. Language barriers are significant deterrents in fully operationalising this model. Teachers also identified several practical limitations,

mainly due to a lack of both human and physical resources, and the difficulties in fully incorporating online lectures and practical sessions. A hybrid model of SCL and TCL was also deliberated in the interim.

Conclusion

SCL is seen as a beneficial approach in the medical faculty, although students initially face challenges in adapting to this method. A combination of student-centred and teacher-centred learning is suggested, initially, with a gradual transition towards more SCL. Teachers need to support students through guidance and appropriate assessment strategies.

Team Based Learning - Course Administrators as Part of the Teacher Team

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Keywords

Team Based Learning, Course administration, Medicine curriculum, Competence development

Introduction

TBL is an active, learner-centered pedagogical method based on peer learning, and a well-established, successfully employed learning method. The students learn individually, in teams and in large group settings. The courses in the new Medicine curriculum at Karolinska Institutet use TBL as a main pedagogic method, the courses are highly integrated and the faculty come from different departments of the university. There are new IT tools for the administration of the course processes. Implementing TBL poses challenges for both learning and teaching competence, but even for creating well-working administrative routines and support structures that best can support the learning and teaching activities. In this short study, I have tried to scope the views of the course administrators on Team Based Learning throughout the full medicine curriculum, in different departments, and with administrators dealing with all courses in the programme.

Method

A short web-based survey was designed and sent to all the medicine programme course administrators at KI (total 56 administrators). 38% of the administrators responded. The anonymous survey consisted of open-end questions, such as any earlier experience of supporting TBL based courses, the perceived benefits and downsides of TBL as it has been implemented so far.

Results

The preliminary results indicate most of the course administrators (61%) had no earlier experience of TBL before the new curriculum was implemented. At the moment, we are still in the middle of the implementation process, which will continue for several years until the last new courses of the six-year curriculum are offered in 2027. Thus, half of the administrators that responded in the survey have not started working with TBL yet. TBL as we have implemented at KI, offers better possibilities to get an overview of the students' progress on the courses, with the rich data the TBL learning tools provide for the course administrators. The administrators are often the primary contact surface and information node between the course givers and the students. The reported downsides include lack of training for the new IT based tools. The different IT tools do not talk to each other, which means that the course administrators must manually transfer data between systems. Also, the courses are more integrated, with more faculty involved which increases the complexity.

Conclusion

The results indicate that there is a need for better and more systematic training for the administrators on the different IT tools and the pedagogic processes of TBL. The IT tools need to be more integrated, so that more of the trivial processes can be automated, to minimize the menial tasks of copying information from a spreadsheet into a database. Since the implementation process will continue for a few more years, it is important to make use of the experience and expertise of the administrators who already now have been involved in the new curriculum.

Analysis of Students' Essays

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Keywords

Essay, Writing skill, Assignment, Evaluation, Format

Introduction

Many things are delivered in writing, such as expressing oneself to others, writing down information received from someone and making it available to the public, keeping it as a story, planning a letter, filing an application, and writing a report. "Essay" is one of the forms of written communication training for first year medical students at Mongolian National University of Medical Sciences.

An essay is used to express one's thoughts by formulating an issue based on evidence. Expressing opinions and collected information in writing depends on the students' vocabulary, knowledge, comprehension, and spelling skills.

In order to evaluate the students' ability to communicate in writing, the essay on the topic "My childhood" was evaluated.

The aim was to analyze first year students' essays.

Method

In the study, essays on the topic "My childhood" written by 568 students who studied Communication Skills in the first semester of the 2022-2023 academic year were used as research material, and a criterion sheet with 6 indicators was developed and evaluated.

Results

From the total essays used in the study, 83.8% (476) were from basic medical class students, 4.1% (23) were from health social workers' class students, 5.4% (31) were from nutrition class students, 4.1% (23) were from traditional medical therapist's class students, and 2.6% (15) were from acupuncture class students.

In order to evaluate the correctness of word choice, grammar of vowels and nouns, syntactic composition, and whether the essay is written with the correct structure, it was evaluated using a sheet with 6 special criteria. In addition, it was evaluated whether the essay was collected at the appointed time, whether the names of the interviewees were written, whether it was written according to the template provided by the department, and whether it was sufficient in terms of content.

32.6% of the studied essays had word and spelling mistakes, and 25.5% had grammar and compositional mistakes. 9.2% of the students did not write the essay according to the template provided by the department, while 20.4% of the essays were written insufficiently in terms of content. In addition, 9.3% of all essays are written without a main section or without a beginning, plot, or an end. 10.6% of the students did not submit the essay on time. Essays were evaluated with 20 points, and 31.3% of all students scored 20 points, 50.5% scored from 15 to 19 points, 16.9% scored from 10 to 14 points, and 1.2% scored less than 9 points.

Conclusion

It is observed that students have spelling mistakes, are not clear in terms of meaning, lack of content, and do not write according to the given style.

The Flipped Classroom Navigator©: A Web-Based Tool for Promoting Flipped Classroom in Health Professions Education

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Keywords

Blended learning, Flipped classroom, Educational technology, Web-based intervention, Educational website

Introduction

Blended learning is a novel student-centred pedagogical approach that includes technology-mediated online education and face-to-face (F2F) learning. Flipped classroom pedagogy (FCP) is one of several modern blended learning strategies. FCP involves using several educational technologies. Therefore, teachers and students from undergraduate health professions education (HPE) would be likely interested in enrolling in an introductory training and development FCP course. Nevertheless, it is necessary to take into account that the teachers and students from HPE are usually overloaded with multiple clinical and academic responsibilities, which may hamper their ability to enrol in a F2F training course due to time constraints. Therefore, it is vital to develop attractive, flexible, and asynchronous training for these HPE associates. Thus, this study aimed to design, develop, and evaluate a web-based tool for fostering FCP in undergraduate HPE.

Method

This is an educational design-based research study with a descriptive evaluation component which was conducted in two steps: (i) design & development and (ii) evaluation of an educational website. An expert panel was formed to evaluate the website by using a website evaluation questionnaire (WEQ). Descriptive statistics were employed to calculate the expert's agreement level.

Results

An innovative website design was adapted to provide access to the broadest range of digital devices. The development process occurred simultaneously in two steps: (i) website development and (ii) learning content development. A simplified homepage was developed commonly for teachers and students. The home page guides users to an attractive, colourful, and title-based course content page which direct users to topic pages which incorporated learning content. Learning content pages were developed in three different forms word/picture-based illustration, videos and quizzes, which were

constructively aligned with the intended learning outcomes of the training programme. The web-based tool obtained a good level of agreement ($\geq 80\%$) for its' feature and usability from the expert panel.

Conclusion

The web-based tool is an effective method for providing training to promote FCP in the HPE. The web-based tool achieved good ratings from experts. However, it is essential to obtain acceptance from the end-users, which will be a focus of future research. Nonetheless, the experts' panel pinpointed areas for further development before being rolled out to end-users.

The Dynamics of Professional Identity: A Cross-Sectional Study of Dental Undergraduates at the University of Peradeniya, Sri Lanka

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Keywords

Professional identity, Professionalism, Curriculum reform, Dentistry, Health Science education

Introduction

Professional Identity (PI) refers to the way in which an individual perceives themselves within their professional role, encompassing their personal attributes, beliefs, values, and experiences. In the realm of medical education, the notion of professional identity formation (PIF) has emerged as a means of understanding the process by which students evolve into competent and empathetic physicians, embodying the highest standards of professionalism. PIF is a highly necessary aspect of professional education, yet it remains largely unexplored in Sri Lanka. Most dental undergraduates in Sri Lanka are admitted to study dentistry without having initially selected it as their first preference. Therefore, it is imperative to investigate the process and extent of PIF among dental undergraduates. This study aimed to assess the psychometric properties of PIF among dental students at the University of Peradeniya.

Method

A cross-sectional study was conducted among 447 dental undergraduates of the Faculty of Dental Sciences at the University of Peradeniya. The Professional Identity Status Questionnaire (PISQ-5d) developed by Mancini et al., (2015) was used to collect data. This model comprised five factors: Affirmation, Practices, Identification with commitment, In-depth exploration and Reconsideration of commitment. There were 20 statements to respond to using a Likert scale. In addition, sociodemographic information of students was collected. The self-administered questionnaire was distributed online in the form of English/ Sinhala and English/ Tamil mediums. The translations were validated by language experts. The adequacy of the sample size was determined by calculating KMO values. The validity of the tool was confirmed with factor analysis (Exploratory Factor Analysis and Confirmatory Factor Analysis) and internal consistency tests (Cronbach alpha). The PIF scores for both the student and batch were computed based on the factor analysis results. The Kruskal-Wallis test was then utilized to compare the PIF scores between batches.

Results

The response rate was 94.85%, and the KMO value was 0.903 ($p < 0.001$) for all items. Factor analysis resulted in a model consisting of four factors: Affirmation, Practices, Identification with commitment and Reconsideration of commitment. The analysis did not reveal the In-depth exploration factor in the present sample. There was a statistically significant difference between the PIF scores ($p < 0.001$) among five batches. The median PIF score was highest among the first years (65.00) followed by the second (61.00), fifth (60.00), fourth (58.00) and third years (57.00). The Practices score was highest among fifth-year students (15.00).

Conclusion

The absence of an In-depth exploration factor in the PIF among dental students highlights the need for curricular enhancements that foster reflective practice and encourage deeper engagement, which is needed for the development of professional identity. The finding of an unexpected pattern in PIF scores, which did not increase progressively from the first to the fifth year, suggests the need for strategic improvements in the curriculum and support systems.

Introduction of Medical Humanities in Undergraduate Medical Program

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Keywords

Medical humanities, Bhutanese culture, Environment sensitivity, Happiness

Introduction

The KGMSB began its postgraduate medical program in July 2014 with nine students in five MD residency programs. In last 10 years, 66 specialists in 11 different specialties graduated from these programs at KGUMSB contributing to HRH pool of the country. The current government decided to establish a MBBS program starting Jan, 2024 and began to plan its curriculum in December 2022. The MBBS program is 5-year program and modelled closely on programs in Sri Lanka. Throughout the many curricular discussions there was general consensus that the curriculum should reflect unique Bhutanese culture, national emphasis on happiness and environmental sensitivity. It was proposed that this dimension of outcomes be achieved by incorporating medical humanities in the curriculum. The paper outlines the evolution of the curriculum in medical humanities.

Method

Information was obtained on the process of formulating the curriculum from official documents publications and informal interviews with both learner and teachers. In addition, policy makers were also consulted in this regard. The scope of Medical Humanities was developed through several rounds of workshops held by the authors over a period of time. Faculty and clinicians shared their views through a series of feedback sessions and discussions.

Results

The initial discussions on the importance of humaneness, culturally sensitive communication skills and ethical reasoning in developing a holistic clinician were expressed during workshops and discussions held in April, 2023. The first workshop on medical humanities was a pioneering step to identify priorities, share experiences on how to improve teaching learning of these competences and an introduction to the concepts in medical humanities. There was an enthusiastic response by the junior medical officers,

most of who had been exposed to similar programs during their undergraduate training in Sri Lanka. Based on these recommendations several rounds of discussions were held by one of the authors (SJ) with key informants from the Bhutanese higher education sector and health systems. The draft proposals were formulated submitted to the University for Approval by the validation committee and other authorities.

Conclusion

The KGUMSB has pioneered a new medical undergraduate program and included a strong component of medical humanities. An iterative process was followed to identify its outcomes and teaching / learning programs.

Listing for Short Communication Sessions

Monday 15th January 2024

1.30 pm – 3.00 pm

Virtual Room 2

Short Communication Session 6 – Teaching and Learning

Needs Analysis for Competence of Information and Communication Technology for Medical Graduates in Indonesia

Afifah Vardhani, Indonesia

Needs Analysis of Virtual Reality Implementation in Indonesian Medical Curricula: A Qualitative Study

Luthfi Saiful Arif, Indonesia

Medical Curriculum Renewal at the University of Hong Kong – Insights from Quantitative and Qualitative Student Evaluations to Guide Priorities for Change

Julian Tanner, Hong Kong S.A.R.

Regulation of Artificial Intelligence Based Solutions in Health Professions Education: A Narrative Review

Suriyaarachchige Nishan Silva, Sri Lanka

Integrated Research Within a Course on Professionalism

Zarrin Siddiqui, Viet Nam

Integration of Teaching and Learning Activities of Medical Technology Stream into Mainstreams of the MBBS Curriculum

Ushani Wariyapperuma, Sri Lanka

Situational Judgement Testing on Medical Professionalism Among Doctors at Colombo South Teaching Hospital

Shehan Silva, Sri Lanka

Inclusive Learning and Assessment Design: Is Generative AI Friend or Foe?

Nalini Pather, Australia

Needs Analysis for Competence of Information and Communication Technology for Medical Graduates in Indonesia

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Keywords

ICT, Medical Education, Curriculum, Competence, Medical Technology

Introduction

Information and Communication Technology (ICT) is part of the competency of medical graduates. However, there has been scarce description of ICT literacy especially in low-middle income countries. This study was aimed to analyze the needs for ICT literacy competency areas for graduates of the medical graduates in Indonesia.

Method

This was a qualitative descriptive study using FGDs and in-depth interviews. Thematic analysis was completed.

Results

A total of 28 medical doctors and 12 clinical year students in Focus Group Discussions. In-depth interviews with 4 stakeholders were completed for triangulation. The themes revealed were different needs of technological literacy and communication from a technical; intellectual, analytical, and creative; and personal and professional aspects.

Conclusion

Further details of ICT literacy highlighted in this study has considered the needs in patient care, research and education.

Needs Analysis of Virtual Reality Implementation in Indonesian Medical Curricula: A Qualitative Study

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Keywords

ICT, Medical Education, Curriculum, Competence, Medical Technology

Introduction

Medical technology are utilized to improve services to patients, including in middle-income countries. However, until now medical Information and Communication Technology (ICT) competencies have not been clearly elaborated and do not have standard references. This research aimed to analyze ICT competency for medical graduates in the Indonesian context.

Method

It involved 28 doctors and 12 clinical year students through 4 Focus Group Discussions and 4 stakeholders through deep interviews. The data then were analyzed through transcribing, coding, managing, and interpreting with a thematic analysis approach.

Results

The results describe three salient themes: The use of ICT in healthcare and health education; Challenges in the use of ICT; and Competencies of health ICT needed by medical graduates. Based on the use and challenge of technology utilization, the competencies are identified in three groups which includes technical ability; intellectual, analytical, creative; and personal and professional aspects. Technical competence consists of the ability to analyze the technology needed and operate technology in services, education, and research based on patient needs. Intellectual, analytical, and

creative aspects includes applying biomedical and clinical sciences in utilizing medical ICT, utilizing evidence-based technology (evidence-based practice), and utilizing data for the benefit of patients. Personal and professional aspects comprises the abilities to apply professional ethics and collaboration in utilizing ICT, ensuring patient confidentiality, and adapting to technology.

Conclusion

The competencies for ICT for medical graduates that are identified in this study can be used to develop and revisit the undergraduate medical curriculum in regards to the learning outcomes, learning methods and assessments, to be better align with the current needs.

Medical Curriculum Renewal at the University of Hong Kong – Insights from Quantitative and Qualitative Student Evaluations to Guide Priorities for Change

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Keywords

Curriculum reform, Emerging technologies, Active learning

Introduction

The medical curriculum at the University of Hong Kong has been through significant change in recent years particularly in shifts to e-learning, increased active learning and changes in technology. There are critical issues emerging around capacities for students in balancing the breadth and depth of knowledge as well as professional skills development during their undergraduate medical curriculum. Here, we aimed to provide recommendations on priorities for curriculum renewal using both quantitative and qualitative approaches over three years.

Method

We combine quantitative data collected relating to the relationships between e-learning and deep learning, together with a mix of quantitative and qualitative data relating to student evaluations of their learning longitudinally across three years during the implementation of e-learning. Data are triangulated to highlight particular priorities for change in the medical curriculum during the next five years.

Results

Key priorities emerging are need for flexibility relating to different students preferring to study by different modalities. Student-student and student-teacher interactions are absolutely essential for a positive learning environment leading to “Students as Co-designers” emerging as a key priority of our teaching team and of the Faculty. Clinical relevance is a recurring theme which needs careful attention in the early years of the medical degree with a particular need for strong clinical / non-clinical collaboration.

Conclusion

Medical curriculum renewal needs to be led by data particularly which prioritise the student perspective. There is significant space for innovation particularly where student-teacher partnerships are prioritised, active learning is encouraged, and teachers are supported in engaging with emerging technologies. Such approaches can guide the design and implementation of Student-Educator Partnership (SEP) initiatives.

Regulation of Artificial Intelligence Based Solutions in Health Professions Education: A Narrative Review

Silva SN

Australasian Institute of Digital Health, Australia

Keywords

AI in Education, Regulation of AI, Regulate AI HPE

Introduction

Artificial Intelligence (AI) has been around in the clinical arena for a fair few years. Since the latest advance in AI based chatbots, and one to one interaction platforms, a new drive towards AI based education platforms for Health Professions Education (HPE) are increasingly becoming popular. However, the mushrooming solutions have not yet been thoroughly studied or regulated. Due to the excitement of being exposed to a next level technological advancement, the learners also are unable to filter and regulate the contents of these solutions as it would fit them. Therefore, it is increasingly becoming important to regulate the industry that generates solutions based on AI for HPE. This also would make sure that the user, who is a future health professional is exposed to a standardized and a regulated AI environment.

Method

A search was performed in research databases SCOPUS, EMERELD, JSTOR and supplemented by SCIENCE DIRECT and GOOGLE SCHOLAR for publications after 2015, on the regulation of artificial intelligence-based solutions on Health Professions Education. Health Professions Education was further subcategorized as Medical, Nursing and Allied Health Education on search. Eight articles were selected after the exclusion process. None of the articles were exclusively on Health Professions Education alone; but also included other aspects like either use of AI in Health Care in general OR Education in general. However, none of the articles contained a completely developed framework of regulations for AI based solutions in HPE. The selected articles were thematically analysed.

Results

Three main common and recurring themes were identified. Namely, Ideal Properties of AI Solutions for HPE, Risks identified in AI solutions for HPE and Aspects to Regulate to minimize the risks. As Ideal properties of an AI solution for HPE, "Equity of Access", "Transparency of the Algorithms used", "Safety and quality of the content" and "Appropriately conforming to Ethics" were included. As Risks identified in AI solutions for HPE, "Solutions worsening public safety", "Solutions increasing Violence", "Privacy and security issues" and "Solutions that are suspicious for AI errors" were included. As Aspects to Regulate to minimize the risks, "The AI solution should clearly indicate the population it was developed from, population to be used on", "Ongoing monitoring and Maintenance of the Solution" and "AI manufacturer must provide advice on how to address system failures".

Conclusion

A notable level of concerns has been expressed about regulating AI based solutions for HPE. However, though most reliable articles identify ideal properties of AI solutions and the aspects that need regulation; the actual regulation itself is not described in great detail. And none of the referred articles contained a comprehensive regulatory framework.

Integrated Research Within a Course on Professionalism

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Keywords

Undergraduate curriculum, Integrated curriculum, Professionalism, Research skills

Introduction

The MD program at VinUniversity is a six-year undergraduate course structured around three themes i.e. Clinician, Professional and Researcher. The design of the curriculum is such that the three themes are integrated instead of stand alone themes. In this presentation, we are presenting the experience of integrating research within the professionalism theme.

Method

In a yearlong course on Introduction to professionalism, students are introduced to research ethics. Fifty-nine students are divided into 10 groups with 5 -6 students. Each group is allocated a topic in week five of the course which is related to professionalism. In the following 10 weeks students go through the process of defining research questions/objectives, review of literature and developing a research proposal. At the end of semester one, presentations are made to a mock ethics committee to get feedback. The projects are then refined and submitted for human research ethics approval so students can continue with the research in second semester. A mini conference is arranged at the end of year 1 which allows students to present their findings. A short reflection as part of the E-portfolio was submitted by the students. In this presentation, we will present the process, a summary of research projects and the feedback received from students.

Results

Ten research projects were introduced which were led by the students. An analysis of the reflections shows that the experience allowed students to understand the steps involved in research along with the development of soft skills to work within teams.

Conclusion

Development of research skills can easily be integrated within any health professions course.

Integration of Teaching and Learning Activities of Medical Technology Stream into Mainstreams of the MBBS Curriculum

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Keywords

Medical technology, Integrated TLAs, MBBS curriculum, ECG, Cardiovascular module

Introduction

The influence of technology on medicine has become an important element in improving patient care. Although institutions offer separate degrees related to the medical technology (MT), incorporation of MT into medical curricula has taken place only in selected universities worldwide. Faculty of Medicine (FOM) University of Moratuwa (UOM) is the only medical faculty to conduct a curriculum inclusive of MT in Sri Lanka, where relevant teaching-learning activities (TLAs) are being successfully developed and integrated into main streams of the MBBS curriculum.

Method

From the basic sciences cardiovascular module of the main stream, the estimation of physiological parameters from non-invasive measurements and from MT stream, interpretation of physiological functions with the use of external bio-signals were selected as intended learning outcomes (ILOs) under content area on electrocardiography (ECG), to develop integrated TLAs. Both these ILOs aligned with the main outcomes of the MBBS program.

The above practical-based, device related ILOs were selected on the basis of providing an opportunity to study the use of technology in relation to the measurement of non-invasive bio-signals, study measurement artefacts and to stimulate interest for future research and innovation of biomedical devices.

Curriculum meetings were held between the departments to develop and modify the relevant lesson learning outcomes (LLOs) and to develop TLAs to achieve the LLOs.

LLOs which were best delivered under a particular stream were identified. This included the incorporation of some LLOs which were originally under physiology into MT, as they were better delivered through MT stream. LLOs in relation to the basis of ECG recording, electrode placement, bio-signal acquisition, analysis of data, and identification of common artefacts were to be delivered under MT while identification of various ECG waves, intervals and segments and interpretation of normal and abnormal ECG were to be delivered through physiology.

Next, identification of suitable (TLAs) and TLA sequencing was done. Approval of the curriculum discussion committee was taken prior to implementation.

Results

The integrated TLAs were delivered to the third intake of students of FOM -UOM. As coverage of LLOs required both theory knowledge and practical skills, lectures, blended learning activities and practical sessions were conducted. Lectures and practical sessions were conducted by the participation of resource persons from both departments. Blended learning included uploading practical video demonstrations on performing ECG to the Moodle online learning platform followed by a hands-on session on data acquisition, recording, analysis and interpretation. TLAs were conducted in a sequence enabling the students to identify the technical basis of ECG recording and lead placements first, followed by the physiological basis of ECG interpretation and understanding of artefacts and troubleshooting with the recording device. There was good student participation to the integrated TLAs.

Conclusion

TLAs of MT and main streams can be integrated to successfully deliver the programme outcomes of MBBS curriculum. It enables medical undergraduates to acquire competencies of recording and analysing bio signals and interpretation of physiological parameters with an understanding of its biomedical and technical basis which in turn will open up pathways for research and innovations.

Situational Judgement Testing on Medical Professionalism Among Doctors at Colombo South Teaching Hospital

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Keywords

Medical Professionalism, Situational Judgement Test, Non technical skills

Introduction

Medical Professionalism is a concept that is being brought to the spotlight in the medical education of Sri Lanka. The trust and respect that society has for medical professionals are based upon the values in practice. With the ever-improving knowledge in medical science and its application in the care of patients, the degree and heterogeneity of non-technical skills of the professional behaviour of doctors have been challenged and questioned. This has been posed by the profession as well as by the public. This study was done to assess the professional response when confronted with hypothetical situations in doctors working in a teaching hospital in Sri Lanka.

Method

A self-administered questionnaire was designed with an expert panel discussion in the form of a situational judgement test. Judgement validity (face, content and consensual validity) was ensured and was pretested. The questionnaire comprised hypothetical scenarios on conflict of interest, gift acceptance, breach of confidentiality, physician impairment, sexual harassment and integrity based on the guidelines on ethical conduct for medical and dental practitioners registered with the Sri Lanka Medical Council. The answers were determined carefully at the above panel discussion. The questionnaire was distributed among 252 medical officers of different levels at Colombo South Teaching Hospital, Sri Lanka.

Results

Thirty-five speciality grade medical officers (consultants), 187 medical officers and 30 intern medical officers responded to this study. The best or next best acceptable response ranged from 15% to 70% with consultants scoring better than other categories ($p < 0.05$). The item on physician impairment and gift accepting was poorly performing in all categories (15% & 18% in intern medical officers, 40% and 35% consultants). Professional integrity and sexual harassment scored well in all categories of service.

Conclusion

A significant number of doctors failed to provide acceptable responses to a situational judgment test. Emphasis needs to be placed to develop and establish effective means of inculcating medical professionalism in training in undergraduate and postgraduate medical courses.

Inclusive Learning and Assessment Design: Is Generative AI Friend or Foe?

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Keywords

Generative AI, Assessment design, Curriculum design, Inclusive education

Introduction

Generative Artificial Intelligence (GenAI) is disruptive to assessment practice, and requires the co-creation with stakeholders, of principles that guide its ethical use. The technology will reshape how we design, implement, and enhance medicine and health professional programs. It has transformative potential to increase inclusive practices, particularly for students managing complex learning challenges. This exploratory study aimed to understand how student and faculty were co-opting GenAI to support inclusive learning and assessment design. Additionally, the study identifies exemplars of good practice that use Generative AI for learning and assessment design.

Method

The study used focus group with students from two universities in Australia. Participants were purposefully sampled based on use of ChatGPT3.5 and ChatGPT4. The focus group interviews lasted 60-90 minutes and was semi-structured. Abductive analysis, integrating inductive data driven coding with deductive theoretical interpretation was used.

Results

Six focus groups with 15 medicine and health students (7 female, 6 male and 2 non-binary; 6 with carer responsibilities; and 5 with known disability) and 15 medicine faculty (6 female, 6 male and 3 non-binary; 12 with carer responsibilities and 8 with known disabilities) were conducted. All participants spoke freely about their perceptions of GenAI as an enabler and a risk to the learning process. Faculty were able to articulate the benefits of incorporating GenAI into their practice but at times had difficulty articulating ways in which they could support students to co-opt GenAI as a learning 'partner'. Some strategies included generating rubrics, creating clinical scenarios for MCQs, and to ideate discussion questions for interactive sessions. Students were able to describe in detail their use of GenAI for both learning and to assist in assessments. Some strategies included generating sample essays, and reframing course content and assessment instructions so that they are more understandable. They were also able to articulate ways in which assessment would benefit from the use of GenAI, particularly for collaborative learning contexts, and the skills required to create appropriate prompts. Students were more confident on the use of GenAI for knowledge-based tasks than reflexive tasks, particularly when tasks were contextual. Three themes were identified: the desired goal for valid and defensible assessment, developing trust, and faculty support and mentoring. Several exemplars of emerging practice from both students and faculty were identified, as well as concerns for ethical use of the technology.

Conclusion

Emerging practice both from faculty and learners confirms that GenAI and other AI tools has acceptance and presents an opportunity to reconceptualise learning and assessment design to focus on personalization and active learning. Incorporating AI into learning and assessment can increase both faculty and student AI literacy and help prepare students for the real-world scenarios where critical thinking is valued.

Tuesday 16th January 2024

10.45 am – 12.15 pm

Virtual Room 1

Short Communication Session 7 – Teaching, Learning and Assessment

Artificial Intelligence in Medical Education: Exploring AI Utilization, Perception, Ethics and Concerns among Medical Undergraduates

Akhila Rakshitha Wimalasundera, Sri Lanka

Online Problem-Based Learning (PBL) in Early Medical Education

Niroshan Lokunarangoda, Sri Lanka

Patient Safety in Health Professions Curriculum: An Interprofessional Module on International Patient Safety Goals

Monica Gupta, India

Quality Assessment of Elective Experiences

Krishna Suvarnabhumi, Thailand

Key Informant Interviews to Assess the Status of Medical Humanities in Undergraduate Medical Education in the WHO South-East Asia Region (SEARO)

Upuli Edirisinghe, Sri Lanka

Optimizing Feedback Practice Using Cultural Practice with Appreciative Inquiry

Thillainathan Sathanathan, Sri Lanka

Healthy Lifestyle Centres: A Hands-On Experience for Medical Undergraduates

Ishanka Talagala,

Telemedicine in Medical Education: Experiences of Medical Students in Conducting Virtual Follow Up to Chronic Illness Patients During Covid-19 Pandemic

Kye Mon Min Swe, Malaysia

Artificial Intelligence in Medical Education: Exploring AI Utilization, Perception, Ethics and Concerns among Medical Undergraduates

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Keywords

Artificial Intelligence, Medical education, Medical curriculum integration, LLM platforms, Technology integration, Content accuracy, Integration challenges

Introduction

As artificial intelligence (AI) continues to reshape the landscape of medical education, understanding its role among medical undergraduates becomes increasingly crucial. The integration of presently available AI platforms in medical studies holds the potential to bridge knowledge gaps, improve information seeking behaviour, enhance research activity, and ultimately the patient outcomes. This study assessed the awareness, patterns of utilization and challenges regarding AI usage among medical undergraduates of the Faculty of Medicine, University of Moratuwa.

Method

A cross-sectional descriptive study was conducted in the Faculty of Medicine, University of Moratuwa in September 2023, with the participation of current medical undergraduates using a self-administered questionnaire. Data were collected on socio-demographic details, information technology background and exposure to AI, utilization of common AI platforms, challenges and limitations of using AI and ethical aspects of AI.

Results

Two hundred and fifty (82.23%) undergraduates responded out of 304. Among these, 69.6%(n=175) were female, while 30%(n=74) were male. Majority of participants (81.5% n=204)) fell within the 21-23 years age group. Nearly all participants (99.6%,n=249) had access to personal computing devices and the majority had reliable internet connections (97.6% n=244) for accessing AI platforms.

Additionally, 74.4% (n=186) of participants reported formal training in computer applications and IT, with 67.5%(n=139) having received IT education during their school years. A majority of 62%, (n=155) actively incorporated computer and mobile applications into their medical studies.

About 78% (n=195)of participants reported using AI platforms in their academic work, with 78.8%(n=197) keeping abreast of AI trends. ChatGPT 3.5 emerged as the most popular AI platform, followed by Google Bard AI and Microsoft Bing. Usage patterns varied, with 26.8% (n=67) using AI infrequently, 25.2%(n=63) using daily, and 25.6%(n=64) weekly. A majority (63.6%, n=159) used AI to complement their medical curriculum, while 38.8% (n=97) utilized it for academic presentations. Furthermore, 34.4% (n=86) employed AI to formulate answers for tutorials. About 37.2%(n= 93) believed that their academic performance had improved due to AI. The majority 57.2%(n=143) face no financial challenges in obtaining AI services. However, 55.3% (n=136) expressed doubts regarding the accuracy and reliability of AI-generated content, and 42.7% (n=105) had concerns about potential disciplinary actions related to the use of AI-generated content, including plagiarism.

A majority 80.8% (n=202) believed that the use of AI in medicine raised ethical concerns, with 58% (n=145) emphasizing the importance of adhering to strict ethical guidelines. Notably, 52% (n=130) considered AI-generated content resembling existing work without proper attribution as a form of plagiarism and it should be avoided. Confidence in AI as an accurate, reliable, and up-to-date information source was varied, with only 23% (n=58) expressing complete confidence, while 54.4%(n=136) remained neutral on this matter.

Conclusion

This study highlights the prevalent use of AI among medical undergraduates accompanied by ethical apprehensions and concerns about content accuracy. Further research in addressing these issues is crucial in effective AI integration in medical curriculum.

Online Problem-Based Learning (PBL) in Early Medical Education

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Keywords

Problem-based learning, Online platforms, COVID-19, Student-centered learning

Introduction

Problem-based learning (PBL) is a widely used method in medical education to foster student-centered learning. Traditionally, PBL is introduced after the initiation of clinicals in most medical faculties. However, being a newly established medical faculty, Faculty of Medicine (FOM), University of Moratuwa (UOM), introduced PBLs in Basic Sciences Stream. Due to the social distancing during the COVID-19 pandemic, the PBL sessions were held online, marking a significant shift in the way medical education was delivered to ensure continuity in learning.

Method

Zoom and Big Blue Button on the faculty's Moodle page served as the chosen online platforms for PBL sessions. In the initial session, each PBL group had assigned a group leader and a session writer. While the leader brainstormed the discussion, the writer employed the screen-sharing to write down information, highlighted essential keywords identified by the participants and displayed the collective learning outcomes generated during the session. In addition to the audio, the chat feature was a crucial component, fostering lively discussions and allowing students to express their opinions and pose questions in real-time, enhancing the overall learning experience.

During the second session, students actively discussed the learning issues identified during the first session as part of collaborative learning. After conducting a series of PBL sessions, feedback was collected from a self-administered questionnaire from students and academics.

Results

Despite the challenges posed by the necessity for physical distancing during the COVID-19 pandemic, our adaptation of conducting PBLs online helped to maintain the standards of medical education at FOM UOM. Feedback from students revealed the effectiveness of chat feature in fostering participation from all the students, including those who may have hesitated to raise their voices in a traditional physical setting. Furthermore, students emphasized the non-threatening nature of online PBLs, which encouraged them to explore the content actively.

Implementation of the screen-sharing feature allowed students to share their knowledge with peers, eliminating the need for note photocopying. This reduced their financial burden and enhanced convenience.

PBL facilitators expressed a preference for in-person sessions due to the inherent difficulty in observing students' activities online, they acknowledged conducting PBLs online as a valuable endeavor rather than not conducting them. This adaptability in the face of adversity highlights the commitment of both students and teachers to ensuring a quality medical education, even in challenging circumstances.

Conclusion

The transition to online PBL sessions during the COVID-19 pandemic proved to be a viable and beneficial approach in maintaining the high standards of medical education at the FOM, UOM. The incorporation of features within online platforms, such as screen-sharing and chat, played a pivotal role in facilitating the seamless delivery of these sessions. Student feedback attested to the effectiveness of these features in promoting active participation and collaborative learning. The consensus emerged that online PBLs were indispensable in ensuring continuous education during challenging times.

Patient Safety in Health Professions Curriculum: An Interprofessional Module on International Patient Safety Goals

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Keywords

Interprofessional module, Patient Safety Curriculum, International Patient Safety Goals

Introduction

According to the WHO, Patient Safety is a global health priority and is a fundamental component for Universal Health Coverage. The Global Patient Safety Collaborative (2018) has emphasised building competent, skilled, and compassionate health workforce through *interprofessional education and training* in patient safety. The curriculum of Health Professions Education in most disciplines, in India, does not include a structured component on Patient Safety. The International Patient Safety Goals (IPSG) were developed in 2006 by the Joint Commission International (JCI). IPSG help hospitals address specific areas of concern in some of the most problematic areas of patient safety. The project proposes a validated interprofessional module on patient safety and its integration in the health professions curriculum in India, based on IPSG. This project was therefore, taken up with the following aims and objectives:

1. To design a contextual interprofessional module of Patient Safety in the health professions curriculum at Bhaikaka University (BU) [Year 1]
2. To implement and evaluate the developed module of Patient Safety for MBBS, BPT and Nursing interns at BU [Year 2]

Method

This is an educational, interventional, mixed method study using descriptive analysis for quantitative data and qualitative analysis for reflections and feedback from learners and faculty.

An interprofessional team was formed from the Nursing School, Physiotherapy School and Medical College of Bhaikaka University. The module was finalised through 5 rounds of focus group discussions. The module will run over 2 weeks, without interrupting the planned schedule of internship for the three courses. Student maturity, feasibility of curriculum delivery were considerations for selecting this group of learners. Twelve interprofessional experts from Medical, Nursing and Physiotherapy professions participated in the content validation through Delphi technique. Given the diversity of

the IPSTGs, it was ensured that medical experts were from surgical, medical and infection control disciplines. The validation was carried out in 2 phases involving 5 rounds- competencies and student learning objectives (SLO) in the first phase, followed by teaching-learning methods and assessment in phase 2.

Results

Consensus percentage and Content Validity Ratio (CVR) were calculated subsequently, and item selection was based on a CVR of 0.78 for all the items. The project has resulted in a validated interprofessional module on patient safety with consensus on all the proposed competencies, objectives, teaching-learning methods and assessment methodology. The evaluation of the module will be carried out after implementation, in the following year.

Conclusion

This project, which is based on IPSTG, provides contextual and validated teaching-learning module, which defines specific competencies on the most problematic areas of patient safety. The module incorporates core interprofessional competencies and addresses fundamental and critical patient safety concerns, inclusive of medication safety, health care-associated infections and unsafe surgeries. So far, no published data is available from an Indian health professions institution regarding a structured interprofessional module on patient safety. The module design and subsequent evaluation shall be shared with the relevant professional bodies/councils and academic forums. In the long run, it will lead to reduced adverse events and better patient outcomes and therefore, health improvement not just at Bhaikaka University but also nationally.

Quality Assessment of Elective Experiences

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Keywords

Quality assessment, Learner satisfaction, Elective, Family

Introduction

Family physicians must provide comprehensive care to patients. Apart from family medicine core knowledge, other skills and knowledge are also important. Electives provide opportunities for trainees to design and organize individualized educational experiences. This study aims to translate and test psychometric properties of the questionnaire measuring quality of elective experiences. The translated questionnaire was used to assess major determinants of satisfactions of elective experiences in family medicine training.

Method

A cross-sectional study was conducted through online survey concerning the experiences of family physicians in Thailand who underwent elective program during their residency training. There were 9 components of the original questionnaire including general information, workload, class period, assess by exams, assess quality of elective, assessment components, classes typology, assess amount of work and assess strengths, weaknesses, opportunities, and threats. Translation and back translation were conducted before it was tested for validity and reliability. Translated questionnaire was used for online survey. The data was collected and analyzed.

Results

The validity of the translated questionnaire was satisfactory with item objective congruence. The reliability using Cronbach's alpha of the total scale was 0.7. Most participants were female (70%) and 33 years old was mean of age. Quantitative analysis of the questionnaires allowed to show that the determinants of satisfaction in electives, which were agreement with assessment components in positive correlation and a negative correlation with perception of workload. Qualitative analysis of questionnaires revealed that trainees consider electives as self-improvement opportunity and get more involved with the teachers. Some of them mentioned that it was benefited to further development of the training curriculum.

Conclusion

Thai version of the questionnaire measuring quality of elective experiences has sufficient psychometric properties. Agreement with assessment components and a smaller number of lessons increased satisfaction. Workload decreased satisfaction.

Key Informant Interviews to Assess the Status of Medical Humanities in Undergraduate Medical Education in the WHO South-East Asia Region (SEARO)

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Keywords

Medical Humanities, SEARO, Curriculum, Empathy, Key informants, Medical education

Introduction

Declining of physician empathy has been noted in medical professionals, motivating medical schools to undertake various methods to rehumanize the practice of medicine. One such method is the introduction of medical humanities into undergraduate medical curricula. A recent scoping review found varying degrees of its implementation across many countries in the SEARO region. To complement this, distinct personalities in this field in different countries of the WHO SEARO were identified, and key informant interviews were conducted to learn of experiences, and gather information on teaching medical humanities in these countries.

Method

A questionnaire to collect information was prepared and key informants were identified via country offices of the WHO. The informants included academics who pioneered medical humanities programs, medical school leaders, and prominent medical educationists in the SEARO countries. The individuals were contacted via email along with a copy of the questionnaire and given the option to complete them individually or via a Zoom interview. Key informants were identified and contacted from all countries of the SEARO except DPR Korea. However despite repeated efforts, contact could not be made with the contacted persons from Indonesia, Myanmar or Maldives. As the study was a Sri Lankan initiative, an input from Sri Lanka was also not included.

Results

Key informants were identified, and a total of nine individuals contacted from India, Nepal, Bhutan, Bangladesh and Thailand (questionnaires completed by the authors). Many medical schools had art related activities outside the curriculum, though mainly for entertainment. Dedicated departments in

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medical humanities were rare, while many had alternate structures (eg. Humanistic Medicine Block and Humanities Cell). In Bhutan where the first MBBS program is underway, medical humanities had been incorporated with the Medical Education department due to the limitation of human resources.

Reasons for introduction of medical humanities included concerns of empathy decline and directives from regulatory authorities (eg. India). Various art forms are being used with the aim of achieving different learning outcomes, and students also organize various extra curricular activities. Varied methods of assessment are also being used. Common challenges were time constraints in the curriculum, lack of expertise in humanities and skeptical staff. All key informants agreed to the establishment of a network or consortium to promote medical humanities in the region and that more local art forms should be included in the curriculum.

Conclusion

Medical humanities is being used to varying degrees in countries of the WHO SEARO with unique programmes in each country. Though there is diversity in approaches and methods used, there was agreement that sharing experiences would be pivotal in overcoming challenges and advancing the concept of medical humanities in the region.

Optimizing Feedback Practice Using Cultural Practice with Appreciative Inquiry

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Keywords

Appreciative Inquiry, Cultural Practices, Western models, Espoused adoption, Alternative traditional method, Feedback practices

Introduction

This study illuminates Appreciative Inquiry (AI) as an alternative to traditional research methods which arguably adopt deficit models. This work seeks to identify how feedback might be improved in a post-colonial Sri Lanka where cultural practices need to be sensitive to the three cultures, Sinhala, Tamil, and Muslim. Initial thinking, to import Western evidence-based models, failed to value or respect the positive elements of medical education in a developing country. To avoid any risk of imposing a Western model onto a developing country we have decided to adopt an appreciative inquiry (AI) Approach.

“AI is a change management approach that focuses on identifying what is working well, analyzing why it is working well, and then doing more of it. The basic tenet of AI is that an organization will grow in whichever direction that people in the organization focus their attention”(Cooperrider, 2004).

AI can enable us to develop culturally sensitive practices in ways that value what is currently working.

Method

The use of AI “4-D cycle” (Discovery, Dream, Design, and Destiny) has allowed us to focus on “A Pilot study risked becoming critical of what was wrong with local approaches to feedback and formative assessment.

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Data gathering included 11 teachers', and 9 students' interviews representing three cultures and three elite interviewees with expertise in Sri Lankan anthropological studies, peace projects, and social justice.

Discourse analysis identified themes shared with stakeholders to co-construct (Design and Destiny) a hybrid model.

Results

AI identified the appropriateness of local cultural practices such as openness to evidence-based ideas, awareness of cultural sensitivities, and reflection on how Western concepts such as student-led educational concepts do not readily fit into the Eastern context but require adaptation.

Conclusion

AI facilitated to identification of the local cultural practices in Sri Lanka and recognized the espoused adoption of Western (e.g. Harden's (1984) "SPICES") models rather than owning local cultural practices appropriate to the post-colonial context.

Healthy Lifestyle Centres: A Hands-On Experience for Medical Undergraduates

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Keywords

Non-communicable diseases, Health lifestyle, CVD risk assessment, Screening, Medical undergraduates, Primary healthcare, BMI, Blood sugar level, Total cholesterol level, Measurements

Introduction

Non-communicable diseases (NCDs) are a leading cause for morbidity and mortality including pre-mature mortality across the globe, including Sri Lanka. These chronic debilitating diseases, requiring long-term expensive care and management result in major economic impact on the individual, society and the country as a whole. NCDs are majorly lifestyle related and therefore highly preventable and the prognosis improves if identified and treated early. Thereby, Healthy lifestyle centres (HLCs) were established across the country to assess and address the risk, and for early detection of NCDs among the population. Medical students being the future healthcare providers, who acquire knowledge on prevention of NCDs need to be skillful on activities provided through HLCs as well. Therefore, they were given the opportunity of serving at an HLC, to obtain hands-on experience.

Method

The student selective and elective programme was initiated by the Faculty of Medicine, University of Moratuwa for the 2nd year undergraduates and the students were openly given the opportunity to select the 'healthy lifestyle Centres' if they wished to serve at a HLC for two weeks, with the learning outcomes of demonstrating, standard methods of height and weight measurement; BMI calculation; CVD risk assessment; health education session on NCD and risk factors; and coordinate and conduct an exercise programme or a healthy diet programme. These outcomes were established in line with the Faculty of Medicine MBBS graduate profile.

Results

Two groups each of three students were attached to PMCU Wadduwa and PMCU Panapitiya of Kalutara district to serve in the HLCs. They were guided and supervised by a Senior Lecturer, Department of Community Medicine and Family Medicine of University of Moratuwa, the Medical Officer In-charge of the respective PMCU and the Consultant Community Physician, Kalutara RDHS division. The students obtained hands-on experience in obtaining behavioural history; physical and bio-chemical measurements (fasting/random blood sugar and total cholesterol measurements); BMI calculation; CVD risk assessment; coordinating and conducting health education programmes and exercise programmes. Further, they identified the challenges of the HLC implementation in the area as well. Qualitative feed-back from the students relieved that this exercise allowed them to better understand the NCD prevention activities in our health system, allowed them to understand the challenges in implementing community-based programmes, improved their technical skills and communication skills, planning skills, coordinating skills and team work.

Conclusion

Provision of hands-on experience on the HLC services for medical students allowed them to serve the community and improve their NCD knowledge and several skills. Expanding this opportunity beyond the selective and elective programme is recommended.

Telemedicine in Medical Education: Experiences of Medical Students in Conducting Virtual Follow Up to Chronic Illness Patients During Covid-19 Pandemic

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Keywords

Telemedicine, virtual follow up visit, medical students, Malaysia

Introduction

Telemedicine is the provision of health care services over a spatial distance through the use of telecommunication technology with the aim of benefitting a patient or population. The World Health Organization highlighted telemedicine as an essential service in response to the COVID-19 emergency. The medical field is becoming increasingly technologized and the pandemic gave us an opportunity to try new endeavours. The objective of the study is to evaluate the student experiences of the virtual home visit to patients during COVID-19 pandemic.

Method

A cross sectional, mixed mode of quantitative and qualitative study was conducted among Year 4 medical students. Online feedback questionnaires were used to gather feedback about virtual follow up home visits. Focus group discussion was conducted to discuss in-depth challenges and benefits during the virtual follow-up visits during COVID-19 pandemic. Data was analysed by using SPSS version-26.

Results

There were 47 of Year 4 medical students participated in the study. Majority of the challenges the students encountered were related to the follow up consultation session (50.0%) such as difficult to

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obtain information via online, difficult to ask sensitive questions, difficult to express empathy, cannot observe the patient properly, cannot perform physical examination, difficult to observe the environment of patients, difficult to communicate with family members, difficult to get cooperation from patients, (27.0%) of the challenges were related to communication problem such as unresponsive from patient through communication via calls or messages, difficult to arrange appointment date and time, (16.0%) of the challenges were related to technical problem such as internet connection issue, digital knowledge of the patients, usage of smartphone, and the others challenges encountered (7.0%) were stressful to catch up with frequent updates and changes in guidelines during pandemic time.

Conclusion

In conclusion, telemedicine offers valuable clinical experiences for medical students, despite challenges. The feedback from medical students who underwent virtual follow up visits for chronic illness patients, provided the insights of benefits and challenges of telemedicine in medical education curriculum. Based on the literature and experiences encountered during COVID-19 pandemic time, it was recommended for all medical institutions to consider incorporating telemedicine into the curricula, to make our medical students of today to be well equipped and prepared for the online medical practice of tomorrow.

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Tuesday 16th January 2024

10.45 am – 12.15 pm

Virtual Room 2

Short Communication Session 8 – Miscellaneous

Utility of Student Workbooks in Clinical Appointments in a Newly Established Faculty of Medicine in Sri Lanka: A Qualitative Study

Udayangani Ramadasa, Sri Lanka

Developing ‘Healthcare Safety and Improvement’ Module for Medical Undergraduates of Faculty of Medicine, University of Moratuwa

Nadhee Peries, Sri Lanka

Examination Performances of Delayed Enrolled Students Vs. Timely Enrolled Students at a Medical School in Sri Lanka

Mahinda Kommalage, Sri Lanka

Humanitas: A Pioneering Effort to Generate Transformative Learning in Medical Undergraduates to Increase Human Qualities and Work-Life Balance

Santhushya Fernando, Sri Lanka

Descriptive Study of Association of Knowledge and Fluency of English and Academic Performance at the First-Year Exams in Medical Students at the University of Peradeniya

Jayampathy Dissanayake, Sri Lanka

Public Perception and Expectations of a Doctor in Sri Lanka: Preliminary Results of an Online Survey

Chamara Sampath Paththinige, Sri Lanka

Evaluation of the Learning Needs for Interprofessional Education on Diabetes Care in Primary Healthcare Settings

Jeremy Koh, Singapore

Is Generative AI a Useful Tool in Developing Patient Education Skills in Medical Students – A Case-Based Study

Nathasha Luke, Singapore

Utility of Student Workbooks in Clinical Appointments in a Newly Established Faculty of Medicine in Sri Lanka: A Qualitative Study

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Keywords

Workbooks, Portfolio, Student centered learning, Clinical Medicine

Introduction

An undergraduate medical curriculum should be designed to empower students to actively engage in self-directed learning. The learning guides should be of appropriate standards to encourage constructive learning by students on their own. A series of student workbooks were developed by the academics of the Department of Medicine, Faculty of Medicine, Sabaragamuwa University of Sri Lanka, jointly with the clinical teachers of the Teaching Hospital Rathnapura. These workbooks contain expected learning outcomes of each clinical appointment, relevant history taking and examination, exercises related to symptom analysis, interpretation of investigations, procedural skills, arriving at a diagnosis and differential diagnosis, clinical reasoning, acute management, subsequent management, and follow-up. It also includes writing up case histories with a reflective log.

We explored the role of newly produced student workbooks as tools for learning during clinical appointments in a newly established Faculty of Medicine of Sabaragamuwa University in Sri Lanka (FoM-SUSL). The research was motivated by the recognition that clinical training in an apprenticeship model and traditional textbooks give little direction to students and fail to stimulate structured learning.

Method

The objective was to determine the efficacy of student workbooks in enhancing learning during clinical appointments of 3rd and 4th-year medical students. The study method involved focus group discussions before commencing the appointment and after the completion of the clinical appointment, using pre-defined questions to guide the discussions.

Students' perceptions and ideas about the utility of the workbook in achieving intended learning outcomes and what else should be included in a workbook will be explored. Pre-defined questions such as views on usefulness, expected contents, and learning activities, were used to guide the discussions at the first interview and the usefulness, coverage of intended learning outcomes, strengths and weaknesses, and any suggestions for further improvements were used at the second interview.

The sessions were audiotaped and transcribed and two independent researchers qualitatively analysed the feedback by thematic analysis method and collected data were examined and identified common themes.

Results

Our results revealed that student workbooks were highly beneficial to students. They provided clear delineations of contents and its depth and guidance to teachers and students on intended learning outcomes. They integrated theoretical knowledge with clinical practice. The students felt that they

facilitated clinical diagnoses, and improved practical skills. However, there were problems in content coverage and suggestions to extend appointment durations and flexibilities to complete tasks. The participants valued the guidance for exam preparation.

Conclusion

The findings showed positive impacts of the workbooks as tools for learning and enhancing their overall understanding. This pioneering initiative by the FoM-SUSL demonstrates the feasibility and effectiveness of integrating well-structured workbooks into clinical education, that benefit students and clinical teachers.

Developing 'Healthcare Safety and Improvement' Module for Medical Undergraduates of Faculty of Medicine, University of Moratuwa

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Keywords

Healthcare safety, Healthcare professional safety, Patient safety, Machine safety, Medical undergraduate, Medical education

Introduction

Healthcare quality and safety improvement are of paramount importance to ensure the safety of patients in all healthcare delivery contexts. Hence, undergraduate medical education should address this area to ensure doctors are equipped with adequate knowledge and have initiated reflective learning during their undergraduate course. When involved in their clinical training, medical students should be able to grasp the concept of identifying risky situations, documenting mistakes and near-misses, examining and enhancing such systems while fully appreciating the fallibility of humans.

World Health Organisation's (WHO) 'Global Patient Safety Action Plan 2020-2023' addresses on evidence-based components of patient safety in order to aid medical schools in introducing and promoting patient safety education. The seventy-fourth World Health Assembly endorsed this global action plan in 2021 with the goal of creating a "world in which no one is harmed in healthcare and every patient receives safe and respectful care every time, everywhere." Hence, the aim was to develop a new module on healthcare safety, for medical undergraduates of Faculty of Medicine, University of Moratuwa to be delivered during the clinical sciences stream orientation program prior to the commencement of ward-based clinical training.

Method

'Healthcare safety and Improvement' module was delivered to medical undergraduates of Faculty of Medicine, University of Moratuwa as a student-centered activity. The WHO multi-professional edition of the patient safety curriculum guide from 2009 served as the basis for the course's four credit values. In addition, the broad aspects of 'patient safety', 'healthcare professional safety', and 'machine safety' are covered in this new module. Further, it was delivered as an integrated learning activity by Clinical Sciences Stream, Public Health Stream and Medical Technology Stream.

Results

There were student presentations followed by interactive discussions, student debates supported by teaching staff, including student play-acting simulations of case scenarios. Some students related stories of their own personal experiences in a hospital as a patient. To provide technology-enhanced blended learning, some concepts and teaching/learning activities were conducted through the Learning Management System (LMS). Since the outcomes of incorporating healthcare safety in the curriculum can vary based on medical students' knowledge, skills, and attitudes, it was planned to integrate theory and an OSCE component depicting practical aspects of learning later in their training. The students are to use the logbook to record their experiences and use the e-portfolio to record their reflections. To achieve this, students were asked to add a reflective writing to the ward procedures they enter in to the logbook in view of healthcare safety.

Conclusion

The healthcare safety and improvement module provided an active and exciting learning environment for medical undergraduates to develop the professional behaviour needed for clinical work to ensure the safety of oneself, patients, and medical equipment they use in wards prior to their ward-based training.

Examination Performances of Delayed Enrolled Students Vs. Timely Enrolled Students at a Medical School in Sri Lanka

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Keywords

Delayed enrolled students, Missing portion of work, 2nd MBBS examination

Introduction

The selection of students to medical schools is centrally governed by the University Grant Commission in Sri Lanka. Few students are enrolled few months after the commencement of the study program. The study progress of the latecomers is a concerning matter to administrative and academic staff leading to refusal of enrolment of latecomers in some instances.

This study was conducted to compare the results of the latecomers vs. timely enrolled students in two examinations held at the first term and at the end of the course 2nd MBBS examination

Method

The study was conducted at Faculty of Medicine University of Ruhuna, Sri Lanka. Students enrolled more than eight weeks after the commencement course were defined as latecomers. As the 2nd MBBS course has five terms, each being 8–10 weeks, and a delay of eight weeks was almost equal to missing the first term. The published examination results of all subjects: anatomy, biochemistry, and physiology at the first term and at 5th term (2nd MBBS) were used for analysis. Results of all three subjects were combined and graded using two different grading systems for two examinations since results were displayed in a dissimilar ranking system in each. The results were analyzed using Mann-Whitney U test.

Results

Examination results of 41 latecomers and 210 timely enrolled students were compared. At the first end-term examination, the medians of timely enrolled students and latecomers were 18 and 16 respectively ($p < 0.05$). At 2nd MBBS examination, the medians of both groups were 16. Though there was a significant difference regarding examination performances at first term, no significant difference was noted at the end of the course in the two groups.

Conclusion

Missing a significant portion of work earlier in the study program does not influence the overall examination performance of students at the medical school. High motivation, peer support and availability of learning resources are likely reasons which have complemented academic learning.

Humanitas: A Pioneering Effort to Generate Transformative Learning in Medical Undergraduates to Increase Human Qualities and Work-Life Balance

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Keywords

Humanitas, Transformative learning, Medical Humanities, Medical Education, Arts in Medicine

Introduction

The experience of medical undergraduates throughout the world is weighted heavily towards acquiring scientific knowledge and practical skills for the workplace. Several adverse consequences are noted: gradual reduction in empathy and development of a dehumanized approach to patient care.

The Humanities Society & Professionalism Stream (HSPS) of the University of Colombo Faculty of Medicine (UCFM) launched an experimental programme called Humanitas (Latin, 'loving what it is to be human'), to explore the possibility of successfully addressing this imbalance. We used inputs unconnected to medical science and skills, consisting of the humanities and narratives. We assumed that this could stimulate emotional responses rather than cognitive responses, leading to transformative learning and a change of the worldview, attitudes and values.

Method

Students in the fourth year of the MBBS program were requested to attend bimonthly sessions lasting 2 hours each. Each session was centred on a non-medical topic, such as the X-Press Pearl disaster, LGBT community, difficulty with English literacy, life of apparel industry workers, breakup of romantic relationships, and fatherhood. Each session was structured to gradually take the audience from unfamiliarity to familiarity, with participation of two or three appropriately selected external, non-medical resource persons, interspersed with appropriate interludes selected from the arts (e.g., songs, dance items, movie clips, poems) and narratives (e.g., interview clips). Academics were invited to comment in real time, and students were encouraged to join in the musical items by clapping or singing along. Written feedback was obtained from all students at the end.

Results

So far 11 programs have been staged. The structure of the program required change gradually, to reduce scientific content (e.g., interviews with subject experts), enhance arts appreciation (e.g., more careful selection to represent a wider spectrum of tastes), and enhance student participation (e.g., invite students to perform songs and dances, recite poems). With the serial progression, the programme also attempted to steer away from conventional takes and explore the layered, conflicted, controversial aspects of the topics (e.g., transgender community pockets in the apparel industry in Sri Lanka, fathers who are difficult to forgive, moral dilemma of teacher-student relationship). There was a gradual increase in student engagement, student participation and staff participation (including non-academic staff). Student feedback indicated a high level of appreciation of humane values (such as understanding, acceptance, resilience, courage) and approval. Over time, the feedback forms have shifted from tick box type and quantitative methods to a predominantly qualitative ones.

Conclusion

The Humanitas Program can be considered a case study on incorporating arts, humanities, narratives and non-medical content to the medical curriculum, aimed at introducing humane values and work-life balance through transformative learning. Analysis of the tick-box type and open ended feedback support a gradual transformative process.

Descriptive Study of Association of Knowledge and Fluency of English and Academic Performance at the First-Year Exams in Medical Students at the University of Peradeniya

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Keywords

English proficiency, performance, Intensive English Program, Medical Undergraduate

Introduction

The medical undergraduate course is conducted exclusively in the English language. An intensive English program (IEP) is offered at the entry point at the Faculty of Medicine, University of Peradeniya (UOP), limited to 4 weeks, followed by a two-credit course in the first semester.

At the university entrance, before the IEP, their knowledge was evaluated by a written pretest (PRE-T), and the progress was measured by a post-test (POST-T). It was observed that some students were not performing up to the required standard at the academic examinations, which warranted a cause analysis.

This study seeks to determine whether their proficiency in English has had a beneficial impact on their performance at the first-year exams and whether we are addressing possible associations of performance of the A/L general English examination and the intensive English course for medical students of the UOP.

Method

A total of 216 students who have completed the preclinical examinations were included in the analysis. The grades and marks obtained by the students at A/L English and the marks obtained at the end of the Intensive English Program, including writing, speech, listening, and reading, were studied. The A/L and marks obtained after the intensive English Program were also analyzed against their academic performance at the 2nd MBBS examination.

Results

A/L English marks and marks of the intensive English program showed a moderately significant correlation whereas both A/L English marks and English marks obtained at the end of the intensive English program and performance showed a weakly significant correlation.

Conclusion

English language proficiency in the medical was at an acceptable level. Therefore, its impact on the performance of medical undergraduates was not profound. Further studies are needed to understand other factors that affect the performance of medical undergraduates.

Public Perception and Expectations of a Doctor in Sri Lanka: Preliminary Results of an Online Survey

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Keywords

Doctor-patient relationship, Doctor-patient communication, Clinical skills, Public Perception

Introduction

The perception and expectations of doctors play a crucial role in shaping the doctor-patient relationship and the overall healthcare system. Understanding the public's perspective is essential to address any gaps in healthcare delivery. This study aims to investigate the public perception and satisfaction regarding their recent healthcare encounter with a doctor, and their expectations of a doctor in Sri Lanka.

Method

An online survey was conducted using a structured questionnaire, in English, Sinhala, and Tamil, validated, pretested, and distributed through e-mail and social media platforms. The questionnaire consisted of multiple-choice and open-ended questions, and rating scales covering various aspects related to public perception, expectations, and satisfaction with doctors. The study was approved by the Ethics Review Committee, Faculty of Medicine, Rajarata University of Sri Lanka.

Results

Herein, we report the findings from 208 responses during the initial six weeks. The majority of respondents were females (59.6%), aged 30 years or below (65.4%) from semi-urban (46.15%) and urban (34.1%) areas. Most of the respondents were not suffering from any long-term illnesses (87.5%), and 41.3% stated general practitioners as their usual source of healthcare. The majority had a positive perception regarding all 24 attributes of a doctor assessed. Most highly-rated attributes

included ensuring privacy during examination (4.35/5), knowledge to treat illnesses (4.34/5), knowledge to diagnose (4.31/5), providing effective treatment (4.27/5), being well-mannered (4.25/5) and maintaining confidentiality (4.25/5). The lowest ratings were obtained for documentation and providing detailed clinical records (3.71/5), considering patients' socioeconomic status (3.76/5), asking for and respecting patients' opinions, and preferences (3.85/5 and 3.86/5 respectively), and providing advice on health promotion and illness prevention (3.88/5). The mean level of satisfaction regarding their recent healthcare encounter was 7.46 ± 2.20 (on a scale of 0-10). The respondents' overall expectations of a doctor on knowledge, skills, and attitudes domains on a scale of 0-5 were 3.90 ± 0.17 , 4.08 ± 0.12 , and 4.07 ± 0.11 respectively. The level of expectation was highest for skills in safe prescribing (4.23), disease diagnosis (4.22), emergency management (4.17), continuous update of knowledge and skills (4.18), trustworthiness (4.17), and providing referral and seeking additional support when required (4.16) while being lowest for knowledge regarding different healthcare systems (3.61). Among 57 open responses majority (20) were related to doctor-patient communication; explaining (8), listening (6), talking to patients (3), and answering questions (3), while not attending to patients' needs timely and long waiting time were concerns of eight respondents.

Conclusion

This study, despite its limitations in generalizability, provides valuable insights into the public perspectives on doctors in Sri Lanka hence needs to be continued. The findings highlight the importance of addressing concerns related to clinical skills, and communication to improve the doctor-patient relationship and enhance patient satisfaction. Healthcare providers and medical educators should consider these findings when designing and implementing reforms in healthcare and medical education to meet the expectations and needs of the public.

Evaluation of the Learning Needs for Interprofessional Education on Diabetes Care in Primary Healthcare Settings

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Keywords

Needs analysis, Interprofessional education, Continuous professional development, Diabetes, Primary care

Introduction

To cater to the aging population and increasing prevalence of diabetes globally, current healthcare systems need to move away from traditional uniprofessional continuous education which has resulted in individual profession working in silos and focusing on disease, towards a team-based care which optimizes the skills of their members, utilizes shared case management, and provides better health services. Effective team-based care often requires each member of the healthcare team to understand interprofessional roles, establish effective communication, and maintain a culture of respect and trust in interprofessional collaboration – these are key principles enshrined in interprofessional education (IPE). IPE is increasingly being highlighted as the key solution to effective team-based care. Yet, to date, IPE as continuous professional development has not been well developed, with poor understanding of learners' professional needs. Therefore, the aim of this study was to seek input from healthcare professionals (HCPs) on their learning needs in interprofessional education focused on diabetic care in primary care settings.

Method

A qualitative study was conducted in primary care clinics in Singapore. The maximum variation purposive sampling approach was employed with a total of 20 participants were recruited, comprising of 14 HCPs, 3 educators, and 3 leaders. Basic demographic data was collected followed by individual semi-structured interviews using a topic guide and audio recorded for transcription. The thematic analysis method and deductive approach were adopted for data analysis. The transcribed text was first familiarized and subsequently coded. Themes were then generated and refined to understand the patterns and relationships of the data.

Results

Five themes emerged as learning needs for IPE in diabetes care. Theme 1 demonstrates an understanding of one's own and others' professional roles, wherein most HCPs perceived the doctor as the leader and were clear about their own roles, but not about the roles of other professionals. Theme 2 discusses the establishment of trust and mutual respect to enhance communication and teamwork. Theme 3 illustrates the perceived knowledge gaps in diabetes care. These gaps include preventive care in diabetes, providing diet and lifestyle advice, pharmacology, managing complex cases related to diabetes complications, and dealing with psychosocial issues. Theme 4 represents the perceived ideal learning activities, with participants favoring interactive case-based learning and journal clubs for obtaining up-to-date information. Theme 5 elucidates the HCPs' perceptions of desirable learning goals in IPE for diabetes care with the aim to improve interprofessional collaboration, working towards quality improvement and patient outcomes.

Conclusion

This study demonstrated that learning needs for IPE can be achieved by conducting interviews with HCPs. This allows the learners to analyze their own gaps or those within their team, and to discover strategies for improvement. With the knowledge gained, a curriculum for IPE in diabetes care can be designed to be relevant in content, set in an authentic context, allowing social interaction and active engagement.

Is Generative AI a Useful Tool in Developing Patient Education Skills in Medical Students – A Case-Based Study

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Keywords

Generative AI, Patient communication, Artificial intelligence, Medical Undergraduates

Introduction

Patient education plays a vital role in improving the outcomes of healthcare interventions. Medical students should therefore focus on developing effective patient skills, which include communication skills, specific domain expertise, and the ability to tailor the pacing of information according to a patient's level of comprehension. Textbooks and customized online resources have been conventionally referred by students to develop the knowledge and to learn how to present it in simplified ways for patients to comprehend. We evaluated the performance of non-domain-specific generative AI as an assistive tool for medical students in this aspect.

Method

Responses were generated using GPT-4 for seventeen hypothetical case scenarios covering disease education, education on pharmacological treatment, education on procedures, and advice on lifestyle modifications. These responses were assessed by experienced clinicians in domains of factual accuracy, adequacy of content, tailoring to suit the particular scenario and suitability for patient education.

Results

Responses for all cases were rated as excellent or good in the domain of being paced for patient education in simple language and having clear explanations. The content was commended for being customized for individual case scenarios, for example, taking into account other information such as co-morbidities and age when providing advice. In 9/17 cases, the content was rated as suitable to be the sole reference guide for medical students on the particular scenario, while deficiencies were noted in the rest of the cases including generating factually wrong information, the context not being customized to the local context, and omitting important information. Among these, 2/17 cases contained inaccurate information, one of which involved a major error with the potential to impact patient safety.

Conclusion

Current non-domain-specific AI technology may not be sufficiently advanced to serve as the sole reference for guiding patient education. Students should integrate their knowledge, aided by appropriate reference material and practical experience gained through ward work, to plan how to educate patients best in the local context. Generative AI can be a useful adjunct tool to simplify complex information aiding doctors to customize facts in a more patient-friendly manner. In addition, generative AI responses can serve as a basic template in specific case scenarios, in which the students should integrate their prior knowledge to ensure accuracy and customize it better to the individual patient's context.

Listing for Short Communication Sessions

Tuesday 16th January 2024

10.45 am – 12.15 pm

Virtual Room 3

Short Communication Session 9 (Young Scholar) – Miscellaneous

Evaluation of the Efficacy of Shadowing a House Officer in Surgical Training

Asel Wijesinghe, Sri Lanka

Anatomy Learning with Enhancement Cadaveric Dissection in Medical Training: A Unique Cadaveric Case Report for Multiple Variations in the Celiac Trunk and Its Branches and Clinical Implications

Cheuk Hang Siu, Hong Kong S.A.R.

Can Google Classroom Help Primary Healthcare Workers in Timor-Leste Learn Clinical Competencies?

Guerson Lopes Amaral, Timor-Leste

Are We Ready for Early White Coat? Students' Perception and Staff Notion on Early Clinical Exposure in the First Year

Paveetha Archana Abeykoon, Sri Lanka

Health Professions Educationists' Perspectives on Fostering Flipped Classroom Pedagogy in Sri Lanka

Punithalingam Youhasan,

Compassion Fatigue Amongst Physicians

Nila Ravindran, Singapore

Training of Qualitative Feedback by "World Café"

Cheng-Wei Yu, Taiwan

Medical Students' Perception and Attitudes on Operating Theatre Learning Experience in Sri Lanka

Thisuri Fernando, Sri Lanka

Evaluation of the Efficacy of Shadowing a House Officer in Surgical Training

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Keywords

Medical undergraduate education, Shadowing, Internship, Surgical training

Introduction

The shadowing house officer is an experiential learning activity taking place within the final year clinical rotations. Upon completing undergraduate medical training, students undertake a mandatory one-year internship training prior to being granted medical registration in Sri Lanka, a challenging time

in training. To ease the transition to internship, many medical schools offer final year students periods of “shadowing” the house officer as part of their surgical training. An exposure to a surgical intern is useful as the work extends to practical aspects of ward work. Studies have shown ‘shadowing’ improves students' understanding of the medical field, enhances teamwork, and increases empathy towards patients. This study aims to assess the impact of the shadowing experience on the internship and to evaluate challenges of the shadowing period.

Method

We assessed the impact of shadowing on the internship and evaluated the challenges of the shadowing period. All intern doctors underdoing the surgical internship programme in Sri Lanka were considered for inclusion in the study. A descriptive cross-sectional survey was carried out among 108 surgical intern doctors in Sri Lanka via an online self-administered questionnaire in English in 2023. The questionnaire was pre-tested and modified to maintain relevance to the Sri Lankan context. The Pearson chi-square test was used for comparison of categorical variables; whilst continuous variables were compared using unpaired (two sample) t-test. Statistical significance was assumed for P-values < 0.05.

Results

Our study population consisted of 108 interns out of around 250, with a response rate of 43.2%. This study demonstrates that on average a final year medical student undergoes a 4-day shadowing period in surgery (range: 3 - 7) which was considered by a majority to help transition into internship. 56% had a clear understanding about learning outcomes and less than half had an induction session prior to commencement of shadowing. The majority felt an induction session with a briefing on practical work would have been helpful to optimize learning. Guidance was primarily by interns (94%) while less than half noted consultant led guidance. The majority felt a senior input on their performance would be more useful and encouraging. Official documentation, routine ward work, teamwork and communication skills were meaningfully experienced during shadowing. The main criticisms were inadequate breaks leading to exhaustion (n=92, 85.1%) and missing out on important teaching activities (n=86, 79.6%). Another major concern was shadowing close to the final examination, which was considered more stressful than useful by 69.4%. The majority stated that provision of a guidance sheet with a checklist would be beneficial while more than half were of the view that shadowing from the third year will be more useful than close to the final examination.

Conclusion

Surgical shadowing house officer is an authentic work experience that students consider an important component in orientating the intern role. An induction session before starting shadowing and more senior input on performance were thought to improve the learning experience. Introduction of shadowing earlier would be more beneficial and provide a broader view about the clinical set up to undergraduates.

Anatomy Learning with Enhancement Cadaveric Dissection in Medical Training: A Unique Cadaveric Case Report for Multiple Variations in the Celiac Trunk and Its Branches and Clinical Implications

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Keywords

Cadaveric dissection, Anatomy education, Anatomical variation, Learning outcome

Introduction

The core anatomy knowledge is imparted to students in pre-clinical medical training-based on established anatomical norms and principles. Anatomical variants potentially impact surgical procedures, requiring modified surgical techniques and increasing the risk of intraoperative implications, thus surgical errors. In this review, we investigate the potential of an 8-week dissection enhancement training program to strengthen higher-order thinking skills among students, emphasizing the importance of recognizing potential anatomical variants.

Method

Under the 'Silent Teacher' Body Donation Program of The Chinese University of Hong Kong, our female silent teacher had signed the consent form to contribute her body to the research dissection study. In the dissection enhancement workshop, we dissected her body and unexpectedly found anatomical variations in the upper abdominal region. The celiac trunk and its branches were exposed and photographed upon dissection.

The celiac trunk, the first abdominal branch of the aorta, serves as the primary blood supply of the foregut. In the majority, the common hepatic artery, left gastric artery and splenic artery share a common origin from the celiac trunk. The inferior phrenic arteries can arise from a common trunk or independently from either the aorta or celiac trunk. The hepatic artery proper, a continuation of the common hepatic artery, gives rise to the right gastric artery and bifurcates into left and right hepatic arteries. While many papers have documented variations in the celiac trunk, none have reported the co-existence of the following 4 distinct variations in the celiac trunk and its branches in a single cadaver.

Results

This case report presents a cadaver with several variations in the celiac trunk and its branches. The celiac trunk displays a false tripod, in which the celiac trunk gives rise to the left gastric artery proximal to the bifurcation into the common hepatic artery and the splenic artery. Both inferior phrenic arteries originate separately from the celiac trunk (Panagouli type III Form 4). The common hepatic artery trifurcates into the gastroduodenal artery and left and right hepatic arteries in the absence of the hepatic artery proper. The right gastric artery arises directly from the right hepatic artery.

Conclusion

The presence of variations in the celiac trunk and its branches can pose challenges and unexpected findings for surgeons. During procedures like transarterial chemoembolization (TACE) treating inoperable hepatocellular carcinoma (HCC), such trifurcation of common hepatic artery increases the risk of complications due to embolization of the non-targeted branches like the gastroduodenal artery. With inferior phrenic arteries being the most important extrahepatic collateral blood supply to HCCs, knowing their variable anatomy is essential for preventing unintentional injuries during TACE.

Understanding these variations is also important for undergoing procedures including liver and pancreas transplantation, pancreaticoduodenectomy and radiological interventions.

In summary, the enhancement dissection workshop is vital for students' experiential awareness of anatomical variations and cognitive retention of anatomical knowledge. It serves as a platform for education, research, and surgical practice, facilitating a deeper understanding of the complexities and diversities of human anatomy beyond what virtual dissection tools can offer.

Can Google Classroom Help Primary Healthcare Workers in Timor-Leste Learn Clinical Competencies?

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Keywords

Google Classroom, Primary healthcare workers, e-Learning, Clinical, Competencies, Timor-Leste.

Introduction

Timor Leste's health system is developing and evolving after having to be rebuilt after the Indonesian occupation (Price et al., 2016). Currently the health system is divided into hospital services and community health services. There are Community Health Centers (71) and Health Posts (323) and many outreach and mobile clinics to provide care to those in rural areas.

Recently, much attention has been given to e-learning in higher education as it provides better access to learning resources online, utilising technology – regardless of learners' geographical locations and timescale – to enhance learning. It has now become part of the mainstream in education in the health sciences, including medical, dental, public health, nursing, and other allied health professionals (Regmi & Jones, 2020).

The National Institute of Health in Timor-Leste (INSPTL) and Maluku Timor developed the Integrated Primary Healthcare (IPHC) syllabus for the in-service training of primary health care professionals in an integrated curriculum for basic clinical competencies. The initial phase involved advancing the clinical educators' knowledge of elearning technology so as to enable them to access the digital platform Google Classroom.

The IPHC project team conducted 8 in person training sessions for participants over a period of 2 months. Subsequently, Google Classroom was used for teaching through regular classes, case studies and quizzes.

Method

Participants comprised 15 medical doctors, 3 Nurses, 1 Public health worker, and 1 Midwife (N=20) based in 17 Community Health Centres across 3 municipalities (Dili, Ermera and Oecusse).

Participants will be interviewed one-on-one using a series of open-ended questions about their experience of learning with Google Classrooms. Pre and post surveys will assess baseline knowledge and competencies, as well as perceived benefits and challenges with elearning. These interviews are then to be coded by the researcher and key themes and findings to be thematically analysed.

Results

Interim findings indicate that the participants gained 100% competence in engaging with Google Classroom content (accessing powerpoints, videos, quizzes and other content). The interim results of

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Google Classroom quizzes have indicated that the participants completion rate is also 100% with some duplicated records (duplications likely due to connectivity issues).

Assessment of practical implementation of clinical competencies has not been included in this study and is outside the scope of this research. The interim results of this study suggest that further research is recommended to explore the practical implementation of clinical competencies learned via Google Classroom.

Note: data collection and analysis is still ongoing at the time of writing this abstract and full results will be available by January 2024.

Conclusion

Interim results of this study indicate that Google Classroom can help primary healthcare workers in Timor-Leste to learn clinical competencies. However, the prevalence of suitable medical resources in Tetum (national language of Timor-Leste), access to internet connection, electricity, digital interface (laptop, mobile phone etc.) and sufficient digital literacy are all prerequisite to achieving learning outcomes from an elearning platform. This research found that primary healthcare workers in Timor-Leste demonstrate rudimentary baseline knowledge and competency in setting up and navigating the Google Classroom interface.

Are We Ready for Early White Coat? Students' Perception and Staff Notion on Early Clinical Exposure in the First Year

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Keywords

Early clinical exposure, Basic science application, First year medical student

Introduction

The first-year medical education at our institution involves didactic teaching of basic sciences and a barrier examination before embarking on clinical exposure, which is after two years of enrolment. The current curriculum contains clinical cases of relevance discussions to endorse the application of knowledge. The common complaint by clinicians is that students are less able to remember and apply the basic sciences when clinical cases are being discussed. A pilot project was launched, with early clinical exposure, including hospital visits, carried out from 2023.

The objective of the study was to investigate the students' perception and staff ideas of early clinical exposure.

Method

A cross-sectional survey was designed on the first-year medical students currently in their second semester after being exposed to the hospital visits. The population attended Surgery, Medicine, Paediatrics, Emergency Treatment Unit, Out Patients Department and ICU wards. All the first-year students and staff were invited to participate anonymously.

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The comparison of students' perceptions of the clinical exposure was questioned against the first semester, which was scheduled without hospital visits. The staff's ideas were questioned on the concept, application and challenges.

Results

The response rate was 68 % and 60% of the students and staff, respectively.

Compared to the previous semester, going to the hospitals made learning the basic sciences of Anatomy, Physiology and Biochemistry more interesting for 91% of students. 76.2% responded that it was easier to understand what was taught, and 86.3% felt it was easier to apply to patient presentation.

Students reported that before attending the hospital visits in this program, 67.9% had visited the hospital to visit a patient, 28% were admitted as a patient, and 1.2% for charity work. Quite interestingly, 3% of them had never been to a hospital. 89.3% agreed that Hospital visits helped them familiarize with the hospital setup. 89.3% endorsed that it motivated them to become a doctor.

A vast majority of 94%, liked having a similar Early Clinical Exposure for future semesters, but 1.8% felt not, while 4.2% were unsure. The majority suggested to improve the program with more exposure to subject areas, increased time duration and interactions, while making it compulsory.

100% of the staff felt that it is necessary and 77.7% felt that this helps the students to understand the important basic science principles and concepts. 88.8% felt this enables students to start applying the key basic principles early on and this exposure excited students' interest in Medicine. 100% agreed it helps them to understand the diverse roles and responsibilities of a doctor in health care. On questioning whether they felt this is a waste of time, 88.9% disagreed. But 33.3% agreed this is challenging in the logistical aspects. Many suggested to coordinate in a more comprehensive manner in the future with robust objectives.

Conclusion

Early clinical exposure was evaluated positively by the first-year medical students. The staff also agreed that this is a necessity and mounted interest in students; hence it is prudent to invest on above.

Health Professions Educationists' Perspectives on Fostering Flipped Classroom Pedagogy in Sri Lanka

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Keywords

Blended learning, Flipped classroom pedagogy, Focus groups, Health professions education

Introduction

Flipped classroom pedagogy is an innovative blended teaching-learning method. Prevailing evidence about flipped classroom pedagogy shows it is an effective and beneficial teaching method from the students' perspective. There is a dearth of evidence about teachers' perceptions of the flipped classroom and their implementation in low-resourced educational contexts. Thus, the study aimed to

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assess the feasibility of flipped classroom pedagogy in Sri Lankan undergraduate health professions education from university teachers' perspectives.

Method

An exploratory qualitative research design using focus group discussions was conducted in three public universities in Sri Lanka. The participants were 24 university teachers who are involved in undergraduate health professions education programmes in Sri Lanka. Four focus group interviews were conducted. Data were transcribed and analysed using inductive thematic analysis.

Results

Four themes emerged. Three themes explained the feasibilities available for implementing flipped classrooms: educational technology, acceptability of the flipped classroom pedagogy, and the educational environment. A further theme refers to future requirements for implementing the flipped classroom.

Conclusion

The study revealed teachers' readiness to use flipped classroom pedagogy. Nevertheless, limited resources and existing teacher-centric practices were identified as challenges to implement the flipped classroom. Overall, the findings indicate there are promising feasibilities for the implementation of flipped classroom pedagogy.

Compassion Fatigue Amongst Physicians

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Keywords

Compassion fatigue, Physicians, Medical education

Introduction

Physicians often refer to a career in Medicine as a "calling". However, during the course of their careers, the constant exposure to pain and suffering of patients, eventually takes a toll on any physician's mental health. This phenomenon called compassion fatigue (CF), is defined as the "negative cost of caring". Interestingly, research has found that individuals drawn to this profession of servitude, though compelled to alleviate others' pain, are often victims of trauma themselves. This only increases their vulnerability to CF. While burnout is a broad term referring to the negative effects of any work environment, CF refers specifically to the emotional cost of caring for those in suffering which physicians are exposed to on a daily basis.

Method

14,212 papers were downloaded from 5 databases - Pubmed, Embase, Psycinfo, Cinahl and Google Scholar. After title/abstract and full text sieve was completed, a total of 81 papers were accepted. Based off the inclusion criteria, only papers with findings on CF specific to the physician population were accepted. Papers which focused on burnout rather than CF were also excluded. Data extraction and analysis have been completed. The next steps include risk of bias evaluation and the writing of the manuscript.

Results

To date, there has been no systematic review solely focusing on CF amongst physicians but this research is pertinent as our data analysis shows that as per the ring theory of personhood, the effects of CF are not only limited to the individual physician but has trickle down consequences on a physician's relation with other patients as well as society. Emotions associated with CF, drained physicians such that they were unable to invest the same commitment to other current patients. Common risk factors of CF include inexperienced and younger physicians, working with trauma survivors and lack of support systems. However, another paper contradictorily suggests that a physician's marital status is also a risk factor for CF. This suggests that although family can be a source of social support, it can also cause overwhelming stress and make physicians more vulnerable to CF. Another finding on risk factors associated with CF is non-ICU personal as "non-ICU patients can express their pain, fear.... while intubated non-communicating patients in the ICU enabled the caregiver to keep an emotional distance".

Conclusion

It is important to better understand CF amongst physicians as there are several interventions that can be started as early as medical school. A paper found that an emphasis on being strong and independent rather than being part of a team increases CF. It has also been found that changing the savior complex mindset in physicians may help to improve CF. These risk factors can be addressed through curriculum changes in medical education and decrease physicians' risk of CF which is as high as 1 in every 3 doctors.

Training of Qualitative Feedback by "World Café"

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Keywords

Qualitative feedback, World café, Instructor

Introduction

Possessing the skill of providing qualitative feedback is essential for teachers. Here, we present our use of the "World Café" method to enhance instructors' proficiency in delivering qualitative feedback.

Method

On September 13, 2023, we conducted a "World Café" workshop that spanned two hours. All instructors were encouraged to attend. The workshop involved the discussion of four videos, each approximately 6 minutes in duration. Subsequent to the workshop, we conducted a focus group interview. The qualitative study was grounded in the examination of observation records and verbatim transcripts from this interview.

Results

Out of a total of 29 instructors who attended the workshop, nine willingly participated in post-workshop interviews. The interview lasted for 34 minutes. The qualitative analysis revealed two key findings: (1) "World Café" effectively fosters a relaxed learning environment during workshop discussions, and (2) the skill of providing specific feedback can be acquired by gaining insight into

individual students' strengths and weaknesses through video analysis. Additionally, our findings indicate that this method facilitates the development of a trusting teaching relationship between instructors and students by creating opportunities for two-way communication.

Conclusion

In a relaxed learning environment, instructors can acquire both the skill of providing specific feedback and the ability to develop a trusting teaching relationship. The "World Café" method can be employed effectively in training instructors for qualitative feedback.

Medical Students' Perception and Attitudes on Operating Theatre Learning Experience in Sri Lanka

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Keywords

Operating theatre, Undergraduate training, Learning experience, Perception and attitudes

Introduction

Educational environments in which learning takes place, play a crucial role in the quality of the learning experience. Furthermore, they are frequently perceived by trainees to be presenting both constructive and dysfunctional challenges which can directly be linked to academic achievement and learning. There are different aspects of the learning environment which includes physical, psychological, social, and emotional domains.

These are thought to play a vital role in the professional and moral development of the students. A learning environment should ideally address all these areas and also present an encouraging atmosphere with constructive feedback. A good learning environment will help in nurturing competent healthcare professionals and influence how, why, and what they learn. The operating room is a unique experience that has visual, aural, kinesthetic learning stimuli and the learning process is moulded by many facets such as the staff (surgeons, anaesthetists, nurses, students, and other trainees), the operative suites, patients, and complexity of the operations. The operating theatre provides benefits to the medical students such as development of sound clinical knowledge and skills and gaining personal insight into ones' career choice. However, this can be a challenging place due to unfamiliar learning environment. This study was aimed at the Sri Lankan Medical students' perception and attitudes on operating theatre learning experience.

Method

A descriptive cross-sectional survey was carried out among medical students undergoing surgical clinical training on the perspectives of the teaching and learning experience in the operating theatre in Sri Lanka. The study group consisted of 390 medical students from four different medical faculties in Sri Lanka representing all levels of surgical clinical rotations. An online based self-administered questionnaire was given to the participants. Statistical tests were performed using SPSS statistical software.

Results

A total of 390 out of 1600 medical students participated in this study from four different medical faculties across Sri Lanka. The students' age ranged from 21 to 28 years (median age: 24 years). The students represented different levels of surgical training and different socioeconomic backgrounds. A majority of the students had actively participated in the operating theatre teaching and learning sessions. Despite this, the students' clarity of the learning outcomes and expectations in a theatre varied greatly. Majority of the students felt that the surgeons were willingly to teach but also noted that there was no standardisation in teaching. This study clearly shows a significant correlation between positive emotions and surgical teams welcoming attitude towards the medical students. Long standing hours were considered a negative emotion by a majority of the students. This study also observed that the theatre environment can be physically and mentally exhausting.

Conclusion

Thus, empathy, feeling welcomed and giving breaks to refresh can go a long way in making the learning experience better. Regular feedbacks to trainers on students' perception of the operating theatre experience is important to value the students' opinion and improve the quality of the surgical theatre. This study strongly recommends initiation of clear induction sessions with introduction of well-structured teaching learning activities in the operating theatre.

Listing for Short Communication Sessions

Tuesday 16th January 2024

10.45 am – 12.15 pm

Virtual Room 4

Short Communication Session 10 (Young Scholar) – Miscellaneous

The Association of Emotional Intelligence and Coping Skills Among First Year Medical Undergraduates at the University of Peradeniya

Navodya Kularathna, Sri Lanka

Teaching of Respiratory Pathology Through an Online Interactive Workbook: Student Perspective and Implications for Further Improvement

Fathima Nuzha Nuha, Sri Lanka

Understanding the Medical 'Brain Drain' Phenomenon in Sri Lanka: The Proportion with the Intention of Emigration and Its Associated Factors Among Pre-Intern Doctors in Sri Lanka

Jeremy Ariadurai, Sri Lanka

Vietnamese Medical Students' Self-Directed Learning Skills Through OSCE Station: One Step of Deliberate Practice

Ngoc Loi Ho, Viet Nam

Collaborating for Better Health: Students' Perspective on Interprofessional Education in Their Healthcare Curricula Worldwide

Michelle Lam, Hong Kong S.A.R.

Exploring the Transition from Pre-University Education to Undergraduate Medical School

Prabanjini Rajkumar, Singapore

Impact of the Covid-19 Pandemic on Medical Students' Empathy, Resilience, And Perceived Stress

Liuyan Jiang, Singapore

The Relationship Between Learning Styles, Personality Type, and Academic Performance in a Module in Anatomy Among First Year Medical Students

Warunie Kosgallana, Sri Lanka

The Association of Emotional Intelligence and Coping Skills Among First Year Medical Undergraduates at the University of Peradeniya

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Keywords

Emotional intelligence, Coping skills, Medical student

Introduction

Medical undergraduates are a unique group within the academic community, facing a distinct set of challenges and demands. Their educational journey is characterized by rigorous coursework, long hours of study, and exposure to emotionally taxing situations in clinical settings. The demanding nature of medical education necessitates the development of coping strategies and emotional intelligence as essential skills for success and mental well-being.

Method

Cross sectional descriptive study design. Quantification of emotional intelligence and coping skills was done using the Trait Emotional Intelligence and Brief Cope questionnaires in English, Sinhala and Tamil languages.

Study population consisted of the Sri Lankan students of the first-year batch of the Faculty of Medicine, University of Peradeniya. Data analysis was done using SPSS software. To assess the statistical correlation among variables, Pearson correlation and Spearman rank correlation were used. For statistical comparison, t test was used.

Results

Of a batch of 234 students, 208 (88.89%) responded. Response rates of male and female students were 76% and 98.5% respectively.

When considering emotional intelligence; the highest mean is seen in well-being ($M=4.35$, $SD=0.87$) while the lowest mean is seen in emotionality ($M=3.58$, $SD=0.82$). There was no significant difference of means of Trait Emotional Intelligence score or its subscales in relation to gender at the significance level of 0.05.

From the three primary categories of coping, mean value of problem-based coping ($M=2.990$, $SD=0.473$) is higher than avoidant coping ($M=2.096$, $SD=0.412$) and emotion-based coping ($M=2.546$, $SD=0.386$). Among the primary coping categories, a significant mean difference was only seen in avoidant coping ($p=0.018$). Mean of avoidant coping in male students ($M=2.192$, $SD=0.479$) is significantly higher than female students ($M=2.040$, $SD=0.357$). For substance use; male students ($M=1.441$, $SD=0.848$) have a higher mean than female students ($M=1.057$, $SD=0.294$) ($p<0.001$). For behavioral disengagement; male students ($M=2.230$, $SD=0.719$) have a higher mean than female students ($M=2.015$, $SD=0.685$) ($p<0.001$). In other subscales of brief coping inventory there was no significant difference between male and female students at the level of 0.05.

At the significance level of 0.01 emotional intelligence shows a positive correlation with problem-based coping and emotion-based coping. There is no correlation between emotional intelligence and avoidant coping.

Conclusion

This study shows that there is a positive relationship between emotional intelligence and problem based and emotion-based coping. However avoidant coping showed no relationship with emotional intelligence.

Enhancing emotional intelligence in medical undergraduates would be beneficial in improving their coping skills and mental well-being. Therefore, developing high levels of emotional intelligence and adaptive coping skills among medical undergraduates should not only contribute to their academic success but also prepare them to provide compassionate and effective patient care in the future.

Teaching of Respiratory Pathology Through an Online Interactive Workbook: Student Perspective and Implications for Further Improvement

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Keywords

Pathology, Teaching methods, Students' perception, Distance learning, Blended learning

Introduction

A strong understanding of pathology is crucial for clinical practice. We use different teaching-learning methods for teaching pathology including lectures, clinical lecture demonstrations, practical discussions and online self-learning activities. This study aimed to explore students' perceptions of the effectiveness of teaching respiratory pathology using online interactive workbooks accessible on the Learning Management System (LMS).

Method

The respiratory pathology workbooks were used for teaching pathology in the Respiratory System Module for three consecutive batches of students from 2021-2023. The interactive workbooks consisted of case scenarios on pneumonia, tuberculosis, bronchiectasis, emphysema and lung carcinoma. Each case included clinical photographs, details of investigations, macroscopic/microscopic images and videos. Theoretical knowledge was provided through lectures on these topics. The workbook consisted of multiple-choice questions (true/false, multiple and single best response), picture matching questions, fill in the blanks questions, short answer questions, identification of areas of abnormality in images and brain teasers as flash cards. The activities focused on applying knowledge to interpret the macroscopic/microscopic pathology and clinicopathological correlation. A time slot was provided in the timetable to complete the workbook and it was also accessible via the LMS throughout the duration of the module. A face-to-face feedback session was held for the entire batch at the end of the module. Completion of the workbook was not compulsory. Feedback assessing students' perception of the workbook, and suggestions for improvement was obtained from the students via a google form comprising 13 questions (11 with Likert scale options and two open-ended questions).

Results

22.1% (150/679) of students accessed the workbooks from all three batches. Ninety-six (64.0%; 96/150) provided feedback. The majority agreed/strongly agreed that the workbooks provided a good understanding of pathology of the respiratory system (91/95, 95.8%), were well structured (91/95, 95.8%), encouraged self - directed learning (90/94, 95.7%), had an appropriate selection of cases (89/94, 94.7%) of the correct level of difficulty (85/93, 91.4%), that the macroscopy (85/94, 90.4%) and microscopy pictures (83/95, 87.4%) were of adequate and good quality and they were provided with adequate time (74/95, 77.9%) and instructions (86/95, 90.5%) to complete the workbook. 78.9% (75/95) felt a feedback session was necessary and 96.8% (92/95) of students said that they would like similar workbooks for the other modules as well. The students commented that the workbooks were interactive, comprehensive, interesting, user-friendly and promoted self-directed learning. Suggestions for improvement included incorporating more challenging cases, reducing the length of the workbook and providing a downloadable offline version of the workbook.

Conclusion

The student feedback was positive with many students finding the online workbooks effective, interesting and encouraging self-directed learning. However, only 20% of students completed the workbooks over the course of three years. Breaking the workbook into smaller parts, with 1-2 cases each and introducing compulsory online formative assessments based on the workbooks are measures that could be taken to increase utilization of the learning material.

Understanding the Medical 'Brain Drain' Phenomenon in Sri Lanka: The Proportion with the Intention of Emigration and Its Associated Factors Among Pre-Intern Doctors in Sri Lanka

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Keywords

Sri Lanka, Medical Brain Drain, Factors associated with brain drain

Introduction

Medical 'brain drain' refers to the emigration of healthcare workers usually from low- and middle-income countries to high-income countries, straining developing nations like Sri Lanka. This results in low doctor-to-population ratios, diminished healthcare services, and declining healthcare quality. To combat this, developing nations must devise strategies to retain healthcare professionals by identifying and addressing the factors driving their desire to work abroad. Sri Lanka invests heavily in free medical education, making the economic impact of emigration of medical doctors that increased significantly in the recent past, significant. Sri Lanka therefore needs to identify factors that influence the emigration of medical doctors and formulate strategies to mitigate the medical brain drain. Therefore, this study aimed to describe the proportion with the intention to emigrate and the factors associated with their decisions among pre-intern doctors in Sri Lanka.

Method

A descriptive cross-sectional study was carried out among 206 pre-intern doctors selected using convenient sampling who have completed their undergraduate degree from local universities in Sri Lanka. Data was collected using self-administered questionnaires shared as google forms via email to participants that consented to the study. Data was analysed using SPSS version-26. Descriptive statistics was used to describe the proportion that intended to emigrate while the significance of factors associated were tested using chi square test.

Results

The participants' age ranged from 23-31 years (mean=27.46 years, standard deviation= 0.971). Majority were females (n=119, 57.8%). Majority were Sinhalese (74.3%), 20.4% were Tamil and 5.3% were Muslim. There was at least one participant from every district in Sri Lanka. Only 18.4% (n=38) were married. Whilst most were graduates of University of Colombo (n=98, 47.6%), there were participants from all 8 local universities that produced pre-intern doctors for this year. Of the sample 39.3% (n=81) intended to emigrate, whilst 18% (n=37) did not intend to do so and 42.7% (n=88) were not sure about their intention to emigrate. Out of those who intend to emigrate, Australia was the most preferred destination country (n=66, 81.4%), majority (n=43, 53.1%) intend to migrate few years

after internship and majority (n=47, 58%) plan on permanently settling at the destination country. However, most (n=72, 92.6%) had not sat or registered for any foreign medical eligibility examinations. Better quality of life (n=77, 95.1%), better pay and benefits abroad (n=76, 93.8%), and political stability and security abroad (n=70, 86.4%) were the top three reasons for emigration. The need to stay with family (n=31, 83.8%), intention to serve country (n=30, 81.1%), and ability to work comfortably in the local setting (n=23, 62.2%) were the top three reasons not to migrate among those who did not intend to migrate. No factors were found to be significantly associated with the inclination to emigrate.

Conclusion

The proportion of those who intend to migrate is high among the sampled pre-interns in Sri Lanka. To curb the brain-drain phenomenon, necessary measures must be taken to address the reasons which prompt doctors to emigrate.

Vietnamese Medical Students' Self-Directed Learning Skills Through OSCE Station: One Step of Deliberate Practice

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Keywords

Deliberate practice, Self directed learning, OSCE, Clinical simulation, Medical student

Introduction

Deliberate practice is considered a new approach, consistent with the trend of educational development, particularly in medical education. At the University of Medicine and Pharmacy, Ho Chi Minh City, Vietnam, deliberate practice activities of medical students are conducted through skill-based sessions in the form of OSCE. Therefore, the effects on students' attitudes and the influence of this learning model on students' abilities are issues that need to be evaluated.

Method

A descriptive cross-sectional study was conducted on 224 second-year medical students participating in deliberate practice activities in practicing basic medical and clinical skills according to the curriculum at the Center for Advanced Training in Clinical Simulation (ATCS). Students are guided at the beginning of the hour (Briefing) to understand how the station run takes place. After each station, students will be given feedback on their skills by a rater so that they can self-assess their strengths and areas to improve. All students were invited to complete a survey questionnaire on their level of satisfaction and confidence after attending the session—the average score after the final exam was collected and compared.

Results

97% of students surveyed are satisfied with the deliberate practice session and 94% of students are satisfied with the support team. Over 80% of the students surveyed say that they feel more confident after attending the class. The higher average test score in the group attending the session for all stations, and this score was statistically significant in 6 out of 9 skill stations than that in the group of students who did not attend the session.

Conclusion

The application of deliberate practice initially shows efficiency in enhancing the capacity of second-year medical students in medical skills. The expansion of the deliberate practice model to other students in improving skill competence should be carried out and evaluated to confirm the benefits of this method.

Collaborating for Better Health: Students' Perspective on Interprofessional Education in Their Healthcare Curricula Worldwide

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Keywords

Interprofessional education, Collaborative practice, Meaningful student involvement

Introduction

Interprofessional education (IPE) is when multiple healthcare professionals learn together, from each other, and about each other, to improve healthcare systems and provide patient-centered care. This differs from traditional methods where healthcare professionals work independently. IFMSA recognizes IPE and collaborative practice (IPECP) as crucial for improving healthcare accessibility, coordination, patient safety, care quality, and health outcomes.

Method

IFMSA formed a Working Group to assess the incorporation of Interprofessional Education and Collaborative Practice (IPECP) in healthcare curricula through a survey that was distributed to healthcare students globally. The survey questions were based on previous IFMSA surveys modified to collect information relevant to post-pandemic implementation with inputs from the International Pharmaceutical Students Federation for better inclusivity of different healthcare professions.

Similarly, a global campaign was conducted by IFMSA to raise awareness about IPECP, to reflect upon student involvement in IPE and its inclusion in the curriculum, and to promote students' work and partnerships in support of IPC. Through interprofessional collaboration, IFMSA also collaborated with pharmacy, veterinary, and dental students on a regional campaign to increase antimicrobial resistance awareness.

Results

IFMSA's global survey assessed students' knowledge, perception, and satisfaction regarding Interprofessional Education and Collaborative Practice (IPECP), and its integration in the curricula, including assessments and format of implementation. The survey also inquired about the challenges faced and the role of students in advocating for its inclusion in the curricula. A comprehensive analysis of the survey relevant to the Asia-Pacific region will be presented at the conference. Furthermore, we hope that the survey results can inform and support student advocacy on IPECP inclusion. The results will also be compared to IFMSA's 2020 IPECP survey, which involved 138 respondents from 56 countries worldwide. In the 2020 survey, 65% of respondents had educational experiences with students from different healthcare professions, indicating the presence of IPE in the curriculum. However, the figures remain concerning since teamwork and collaboration are crucial competencies

for all healthcare professionals, and we are eager to see how these figures may have changed in the post-pandemic recovery period.

IFMSA also developed a policy document calling upon different health professions and educational stakeholders to support policies, funding and training needed to develop, implement and evaluate context-specific IPECP. It covers the inclusion of IPE in the curriculum as well as its relation to research in medical education, accreditation and quality assurance, social accountability, universal health coverage, one health, and the pandemic's impact. The document also highlights the importance of the socio-cultural environment and the need for active learning and effective evaluation in the implementation of IPE.

The IPECP campaign was promoted on IFMSA's platforms with a global reach. The regional collaboration event attracted 96 medical, pharmacy, veterinary, and dental students' participants from 14 countries in the Asia-Pacific region to work together on a hackathon.

Conclusion

Healthcare students play a crucial role in advocating for Interprofessional Education and Collaborative Practice (IPECP). IFMSA's survey explores the status of IPECP in the curriculum worldwide and students' role in promoting collaboration across different healthcare professions, especially in the post-pandemic recovery period.

Exploring the Transition from Pre-University Education to Undergraduate Medical School

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Keywords

Transitioning, Pre-University, Undergraduate Medical School, Singapore, Asian context, Team Based Learning, Resilience, Adapting to change

Introduction

Medical students transitioning from pre-university education to undergraduate medical school undergo a pivotal change, the process of which is under-researched, especially in the context of Singapore. This study seeks to bridge this gap by exploring experiences of students at the Lee Kong Chian School of Medicine (LKC) during this critical juncture.

Method

Through semi-structured interviews of 11 first-year students, we unearthed a plethora of challenges and learning opportunities they encountered, and evaluated them using Westerman's framework.

Results

The students were grappling with a shift from didactic learning to the Team-Based Learning (TBL) pedagogy employed at LKC. Although TBLs have demonstrated efficacy in numerous studies, participants expressed initial struggles in adapting to this new approach. Added to this was the challenge of navigating increased social activities, balanced against rigorous academic demands. Despite these hurdles, participants exhibited commendable resilience, seeking support within their

immediate community. Particularly noteworthy was the collective sentiment of solidarity; the realisation that their peers, while academically formidable, shared similar challenges, fostering a sense of community and mutual support. This research also brings light to the unique cultural nuances of transitioning within the Singaporean context, a valuable addition to the predominantly Western-centric body of literature in medical education. A noteworthy limitation of this study, however, is its small sample size and singular institutional focus, highlighting the need for more expansive research in this field.

Conclusion

In conclusion, while transitions in medical education are challenging, they also offer invaluable growth opportunities. It is imperative for educators to recognize the complexities of this phase, offering support and guidance to students, and continually refining the process for future cohorts.

Impact of the Covid-19 Pandemic on Medical Students' Empathy, Resilience, And Perceived Stress

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Keywords

Empathy, Resilience, Perceived Stress, Medical Students, COVID-19 pandemic

Introduction

Empathy in medical practice is intricately linked to clinical competence. Notably, factors such as burnout, stress and negative emotions play integral roles in influencing the level of empathy among medical students. Resilience is one of the coping mechanisms for stress. Medical students with more resilience have been found to have lower perceived stress levels, which in turn may contribute to heightened empathy. However, there remains a dearth of comprehensive research examining the three crucial components in one study: empathy, resilience, and perceived stress. This cross-sectional study endeavors to shed light on the dynamics of the three components, with a particular focus on the periods before and during the COVID-19 pandemic.

Method

We used the Toronto Empathy Questionnaire (TEQ), the Brief Resilience Scale Questionnaire (BRS), and the Perceived Stress Scale Questionnaire (PSS) to assess students' empathy, resilience, and perceived stress respectively. These questionnaires were disseminated to all five phases of students in AY2019/20 (pre-COVID-19) and to students in Phase I, III and V in AY2020/21 (during COVID-19), using a cross-sectional approach. Our study focused on Phase III (first clinical year) and V (final year) students, as these years involve significant transitional challenges. We analyzed the data descriptively for each component and used a Welch's two-sample T-test to compare the three components before and during the COVID-19 pandemic. Spearman correlation was employed to examine the relationships among these components.

Results

There were 102 Phase III respondents in AY2019/2020 and 64 in AY2020/21. Phase V had 171 respondents in AY2019/20 and 52 in AY2020/21. For TEQ, there was a statistically significant increase in mean empathy scores pre-COVID-19 to during-COVID-19 for both Phase III (47.57 to 50.38, $p = 0.003$) and Phase V students (45.99 to 51.23, $p = 0.000$). For BRS, we observed a statistically significant increase after the COVID-19 outbreak for both Phase III (20.23 to 21.52, $p = 0.036$) and Phase V students (19.65 to 21.29, $p = 0.010$). PSS average scores dropped significantly during COVID-19 for both Phase III (21.46 to 18.39, $p = 0.004$) and Phase V students (21.35 to 19.62, $p = 0.021$). Spearman correlation results showed that resilience is negatively correlated with perceived stress and positively correlated with empathy, while perceived stress is negatively correlated with empathy regardless of phase of study.

Conclusion

Our findings revealed a COVID-19 impact on our Phase III and Phase V medical students' empathy, resilience, and perceived stress levels. Interestingly, our students perceived less stress during COVID-19 compared to pre-COVID-19. This unexpected observation could be attributed to several possibilities: (i) that students who had more resilience participated in the AY2020/21 survey, or (ii) training in the real clinical environment was perceived as more stressful compared to virtual lessons and use of standardized patients for learning which was employed by the school during COVID-19. Additionally, our study found that students with higher resilience perceived less stress and displayed more empathy, which is consistent with what has been described in the literature.

The Relationship Between Learning Styles, Personality Type, and Academic Performance in a Module in Anatomy Among First Year Medical Students

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Keywords

Learning styles, Personality, Academic performance, Medical student, Anatomy teaching

Introduction

The primary aim of a tertiary medical school is to produce doctors with adequate knowledge, skills, as well as attitudes, which will ultimately benefit the health status of a country. In order to achieve that, it may be valuable to understand the learning style and personality of a student, so that their grades can be maximized, and proper attitudes be inculcated. The learning program can be tailored to the styles of each student, thereby maximizing efficiency of knowledge, skills and attitude delivery.

This study aims to identify the learning styles and personalities of first year medical students, and correlate with academic performance to identify any patterns

Method

A cross sectional descriptive study was carried out on the first-year medical students, by way of a questionnaire. The learning styles were determined by using the VARK learning style modalities, and personality by the Myers Briggs classification. The total aggregate mark for the Anatomy of Limbs

module was compared among the different personalities and learning styles using the Kruskal-Wallis test, with pair-wise comparison using the Dwass-Steel-Critchlow-Fligner (DSCF) test.

Results

Multimodal learning style was the most preferred learning modality among the students (70.2%) followed by kinaesthetic (15.3 %). Aural, visual and reading/writing learning styles were preferred by 10.7%, 2.1% and 1.7% respectively. The commonest personality type was 'protagonist'(ENFJ) (19.8%) followed by 'campaigner'(ENFP) (11.6%).

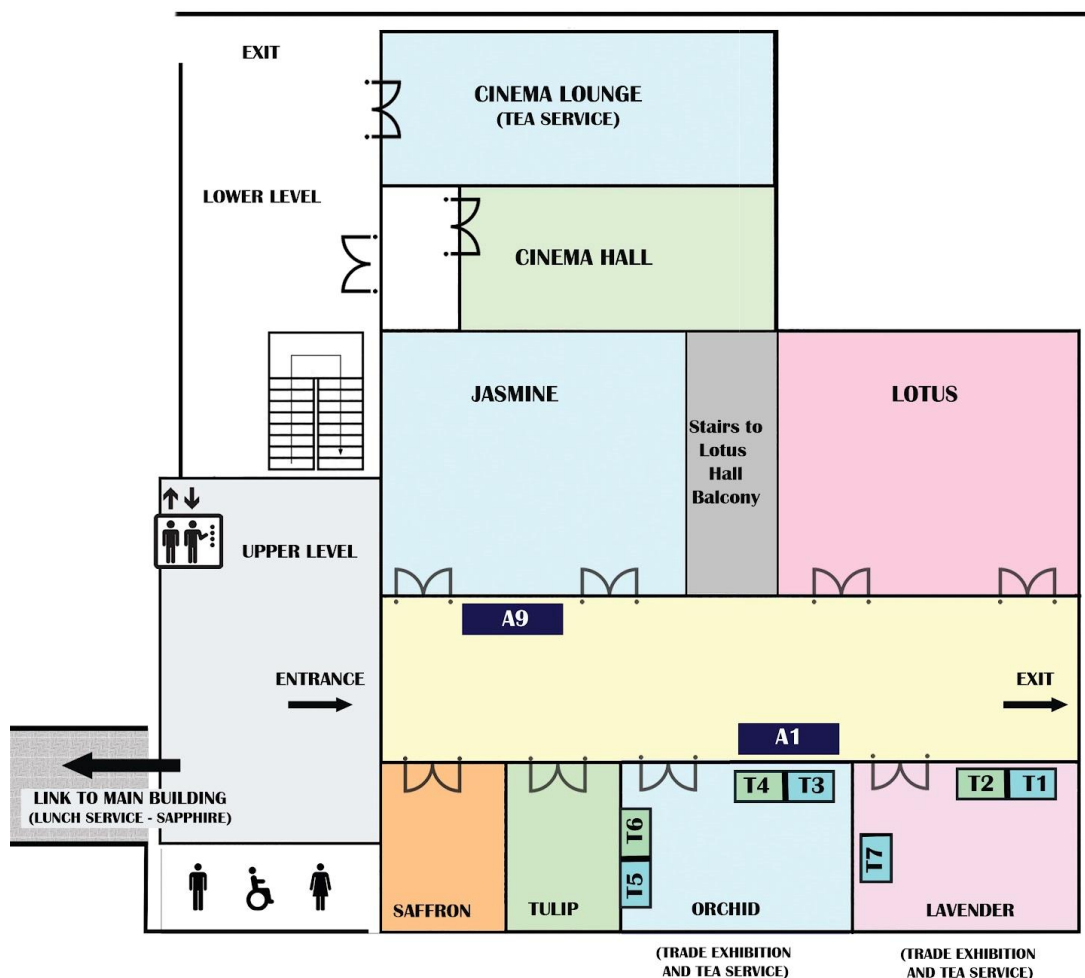
According to Kruskal-Wallis test, there was a significant difference for personality and examination results in Anatomy of Limbs module ($H [15, n=242]=29.6, p=0.014$). The DSCF test showed a significant difference ($p = 0.036$) between INTP (logician) and ENFP (the campaigner) personalities in terms of examination results with no significant difference noted between the other groups.

Kruskal-Wallis test showed no significant relationship ($H [4, n=242]=5.36, p = 0.252$) between the learning style and marks.

Conclusion

The study concluded that an individual's preferred learning style does not affect their academic achievement in the Anatomy of Limbs module while their personalities do. As multimodal learning style is their preferred learning modalities, all Visual, Aural, Kinaesthetic and Reading/Writing modalities can be included during the teaching process of Anatomy of Limbs Module.

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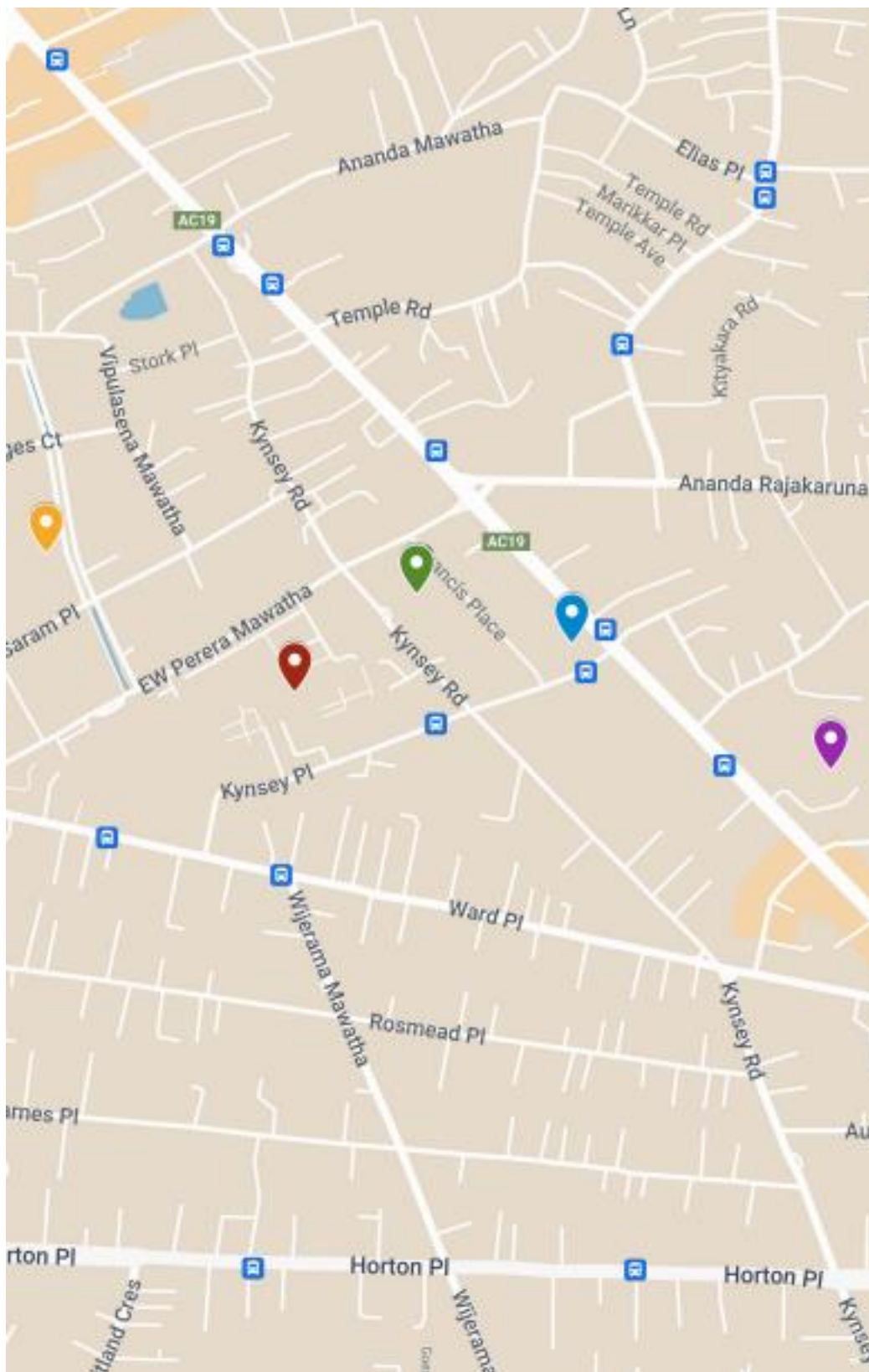


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Thank you

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All those who have helped in multiple ways to make this conference a success.

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 Paveetha **Abeykoon**
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 Chrishantha **Abeysena**
Abeysinhe KDC
 Ranija **Abeysinghe**
Abeysirwardhana AJ
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Adikari AMTB
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 Gayani **Alwis**
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Amarasinghe AANG
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 Madawa **Chandratilake**
 Lakindu **Chandula**
 LPG **Chinthaka**
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Coonghe
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 Ashwini **de Abrew**
 Deepthi **De Silva**
 Dulantha **De Silva**
 MLWP **De Silva**
 MVC **De Silva**
De Silva UCK
 Ishan **De Zoysa**
 PT **de Zoysa**
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 DMRD **Dhanapala**
 Nilani **Dharmarathne**
Dharmawardane Mh
Dharshini K
 MS Lanerolle **Dias**
 HW **Dilanthi**
 Vajira HW **Dissanayake**
 Maduwanthi **Dissanayake**
 Jayampathy **Dissanayake**
 Sampath **Dissanayake**
 WDN **Dissanayake**
 Nirosha **Edirisinghe**
 Sajith **Edirisinghe**
 Upuli **Edirisinghe**
 Deepthi **Edussuriya**
 Pete **Ellis**
 WKM **Epa**

Erandika HAH
Fazrina Faizer
Dinithi Fernando
Dilusha Fernando
Hasitha Fernando
Fernando I
Fernando MAND
M. D.M.Fernando,
Merennage Anusha Yasanthi
Fernando
Nayana Fernando
Fernando PAPP
Santhushya Fernando
Thisuri Fernando
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Gamage KGDMMK
Gamage YGLV
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TD Gooneratne
GCS Gunasekera
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Chamika Harshani
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D Hettiarachchi
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Tharindunee Jayakody
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Kapila Jayaratne
Jayasena SA
SMT Jayasena
Jayasinghe AVK
Damani Jayasinghe
Saroj Jayasinghe
Wishvani Jayasiri
DMCS Jayasundara
Gihani Jayawardana
Subashini Jayawardana
Asanka Jayawardane
Chantha Jayawardena
Jayawardena R
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Waranga Jayawickrama
Ponnampalam
Jayawickramarajah
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J Jegaruban
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Jeyakumar S
Thanuja Jinadasa
Juvandara N
TK Kalubowila
Kannan S
Amaranath Karunanayake
ND Karunaratne
Panduka Karunanayake
Rishni chanuka Karunanayake
Indika Karunathilake
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Lalindra Sanjaya
Kaththiriarachchi
P Katulanda
Keethiratne WAP
Dilini Kekulandara
GKDB Kiriella
Dinoo Kirthinanda
Sajade Kitchilan
Kaumudee Kodikara
Chathurangi Kodithuwakku
Gayanthi Kodituwakku
Mahinda Kommalage
Sadhana Konara
Warunie Kosgallana
Kossinna NT
Navodya Kularathna
Kularathna SMR
Kulatunga GGAK
Kumara GTGK
Kalyani Kumari HAD
Kumari M D N P
Kumari KKVP
Anamma Kunjukunju
Devaka Kurukulasuriya
DM Nimesha Lakshan
Lakshika WAR
P Lanerolle
Lenagala Larn
Chomnapus Lertpreecha
Liyanaarachchi SPK
Deepani Liyanage
UA Liyanage
Loganayaki R
LGS Lokugalappatti
Niroshan Lokunarangoda
Muthalibu MH
Silmy MBM
Madawala SGML
Pasan Madhusankha

AP Malalasekera
Iroshani Malkanthi
Sudesh Malkumara
Malwenna LI
Mambulage RU
Supun Manathunga
Kosala Marambe
Kavindu Marasinghe
Rohana Marasinghe
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Menike LRKMD
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Rita Mustika
Sivanjali Myuran
Prasanna Nadarajah
Ganashiam Nadarasa
Punsandi Nadessha
Yatagama Lokuge Sumal
Nandasena
YLS Nandasena
K Nanthakumar
TS Navaratinaraja
Navodani KAT
Nawaratne LV
MNM Nazeel
Nilushi Nisansala
Nishanthi BKDB
Fathima Nuzha Nuha
Asela Olupeliyawa
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T C Pannala
Sanka Paronavithana
Aloka Pathirana
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Nadhee Peries
Peiris TDP
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Chandrakumara Perera
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Dewmini Perera
Hansani Perera
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Perera KPDK
Mellawa Thnthirige Ajith
Nishantha Perera

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 Rehan **Perera**
 Vindya **Perera**
Perera WND
 Vasanthi **Pinto**
 Indunil **Piyadigama**
Piyasena MGY
 Gominda **Ponnamperuma**
Prabachandran AE
Prasad EAV
Prasath MA
Premadasa SPK
 Kumuthu **Premalal**
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 Ruwan **Prematilake**
 AAH **Priyani**
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 Saman **Pushpakumara**
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Ragel
S Raguraman
 Himani **Rajapakse**
Rajapaksha RM CJ
 YN **Rajapakse**
 Udayangani **Ramadasa**
 Ishan **Ramanayake**
 DC **Ranasinghe**
Ranasinghe GSP
 Minusha Bernard **Ranasinghe**
 AKP **Ranaweera**
 GG **Ranaweera**
 Meneka **Ranaweera**
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Rangani PKL
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