

# BUILDING COLLABORATIVE COMPETENCIES



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INTERNATIONAL CONGRESS OF HEALTH WORKFORCE EDUCATION AND RESEARCH

# Summary Page

2024001 Facilitation of a service user group	4
2024002 Utilizing the Anthropocene as a framework for teaching global interdependence in an introductory interprofessional education course	
2024003 Promoting Interprofessional Dialogue and Collaboration and Between Academia and Clinical Practice Through a Structured Stakeholder Engagement Model at Regional Summits	6
2024007 Utilizing Project ECHO for Sickle Cell Disease: A Global Multidisciplinary Educational Opportunity	7
2024008 Collaborative practice building: Essential non-clinical competencies that are likely to optimise capability and patient-centred outcomes	8
2024009 Consensus methods for outcome setting in interprofessional faculty development: an interactive workshop	9
2024010 Theoretical model of interprofessional educator development: an analytical literature review	0
2024011 The emotional journey to healthcare educator: a qualitative analysis of 20 interviews	1
2024014 Establishing Psychological Safety and Addressing Power Dynamics: Cornerstones of Successful Interprofessional Practice and Education	
2024015 Analysis of participant evaluation of an education program on communication for midwifery students. A case control study	4
2024016 Development of a blended education program to improve teamwork and communication among midwifery students: findings from a mixed method study	6
2024017 Evaluation of a peer support training programme for healthcare workers in an acute hospital in Singapore1	9
2024018 A mixed methods investigation of the relevance of interprofessional socialization during studies for the profession – Results from students and young professionals in the health professions2	
2024019 Understanding the scope of practice of physician associate/physician associate comparable professions using the World Health Organization global competency and outcomes framework for universal health coverage2	
2024021 Humanness in Learning: Nurturing the Human Spirit	3
2024022 To Team or not to Team!	4
2024023 The perspectives of healthcare professionals on the concept and characteristics of clinical leadership – a qualitative study in Nursing Homes2	5
2024025 Changemakers in healthcare: validation of a competency framework for innovative behaviour of healthcare professionals	.6
2024026 Development and validation of tools for assessing characteristics and influencing factors for the development of Clinical Leadership	.7
2024027 AI-ding the ED: Exploring the potential for artificial intelligence (AI) to support medical decision-making in emergency departments (EDs)	.8
2024028 Creating high quality IPE resources and workshops: Tools, Tips and Techniques A Case Study	0
2024029 Interprofessional workforce systemic approach: how can you facilitate leadership from your interprofessional champions and learners?	1
2024030 Approaches to visualize classification in eHealth system	2
2024031 IPECP at the centre of the future quality and safety policy agenda - Why and how?	3
2024033 Building a new health system. Lessons learned on cross-domain collaboration from three different communities in the Netherlands	
2024034 Academics' Views of Opportunities for Collaborative Learning on Practice Placements. A qualitative study informed by Social Network Analysis	
2024035 Interprofessional learning in a Student-Run Dental Clinic: a challenge for dental hygiene and dentistry programs 3	8
2024036 An evaluation of inter-professional prehospital critical care simulation training for healthcare students in higher education	9

2024037 Continuous professional development of health professionals guided by specialist core competencies: an e- study	
2024038 The Plymouth Integrative Health and Social Care Education Centre: promoting interprofessional education ar research across a large faculty of health	
2024041 Sustainability of interprofessional team meetings for vulnerable elderly people living at home	43
2024042 Evaluating the Role of an Integrated Research Curriculum in Fostering Lifelong Research Commitments in Me Graduates: Shaping Future Clinician-Scientists	
2024043 Investigating the Journey and Outcomes of Research Experiential Learning in a Competency-based Undergra Medical Training Program in the United Arab Emirates	
2024044 Blended simulation-based interprofessional team training program: Lessons learned from focus group discus	
2024045 Digital Transformation: A look at the creation & implementation of a Foundation Year Two (FY2) Digital Health rotation	
2024046 To what extent does having a student committee increase both the uptake and opinion of interprofessional education amongst students at the University of Nottingham?	50
2024047 Evaluating the educational and networking opportunities for the Centre for Interprofessional Education and Learning (CIEL) student committee at the University of Nottingham.	52
2024049 Fostering Global Collaborations in Health Profession Education: The Global Classrooms for Health Professio Education Network	
2024050 Using Artificial Intelligence to build our understanding of the educational factors associated with graduate nuretention at the end of their transition to practice	
2024051 Changing Educational paradigms to provide multidisciplinary comprehensive person-centred care	57
2024052 The Emerging NUM Program – Building Collaborative Competence and Enhancing and Expanding Leadership	
2024053 Accelerated Transition Program into the Intensive Care Unit: An innovative education strategy to fast track Registered Nurse training with supervision and leadership support in Intensive Care	60
2024055 Strengthening the quality of interprofessional education learning experiences through online faculty developed to the control of the	ment 61
2024056 Building interprofessional collaborative practice competencies through online education	62
2024057 Taking the earliest opportunity: gathering students' thoughts about an interprofessional learning intervention induction	-
2024058 Technology-Assisted Interdisciplinary Learning and Simulation: Advancing Postgraduate Healthcare Education	on 65
2024059 Creating Interprofessional Field Identities: A Short Paper	66
2024060 Rural and flexible nursing education; Motivation, experiences and career expectations	68
2024061 A Novel Leadership Fellowship Training Programme for Capacity Building of Pharmacists in Africa	69
2024062 Revolutionizing Pharmacy Recognition: Evolution of the Australian and New Zealand College of Advanced Pharmacy Recognition: Evolution of the Australian and New Zealand College of Advanced Pharmacy Recognition:	-
2024063 Collaboration at its core: Developing the healthcare workforce for person-centred practice	72
2024065 Virtual reality simulation for collaborative competencies in healthcare education	74
2024068 Progressive Muscle Relaxation in Pandemic Times: Bolstering Medical Student Resilience through IPRMP and Gagne's Model	
2024070 Strategizing PLATO with Scrum: Transforming Medical Education by Bridging Basic Sciences and Clinical Kno in Competency Based Medical Education	_
2024071 Results of an International IPE Event - Outcomes, Student Perceptions, and Future Actions	77
2024072 Recommendations for Nurse Educator education in Europe	79
2024073 Exploring Essential Skills for Healthcare Professionals in Integrating Digital Health into Practice	80
2024076 Improving Client Outcomes through Incorporating Health Behavior Models and Motivational Interviewing Skil HealthCare Professionals Practice	

2024078 Shared decision making: audiology student perspective	. 83
2024079 Skills Development for Clinical Students – Leadership, Innovation and Quality	. 84
2024081 Collaboration Competencies in an International Academic Nursing Partnership: Strengthening the Brazilian Healt System	
2024082 Learning Together to Work Together: Developing Collaborative Care for Patients with Head and Neck Cancer	. 86
2024084 Elderly care organizations as the initiators of caring neighborhoods; a suitable solution?	. 87
2024085 MidMed: Simulated Interprofessional Collaborative Practice for Midwifery and Medicine Students	. 88
2024086 Strategy based on active methodologies in the first years of a health career to develop the skills and abilities necessary for collaborative practices and interdisciplinary competencies	. 90
2024087 Analysis of collaborative practice development strategy aligned with the Global Competency Framework for Universal Health Coverage	. 92
2024089 Correlation between domain and indicators of Person-Centered Care of the RIPLS Scale and the attributes of (Readiness for Interprofessional Learning Scale) in Nursing Students in preclinical stages of training	. 93
2024090 Discovering and Dreaming: Long-term Care Healthcare Aide Perceptions of Structural Empowerment	. 95
2024091 A Social Return on Investment Evaluation of a university nature-based social prescribing pathway to support mer health, and wellbeing	
2024092 H-PASS – A complex training course for healthcare professionals on digital and transversal skills supported by VR	97
2024094 Impact of a novel undergraduate teaching programme designed to improve students' confidence in assessing Ophthalmological patients	. 98
2024096 Post-COVID Healthcare Transformation: Embracing Innovation, Digital Technologies, and Collaboration in Health Education and Practice	
2024097 The Joint Action HEROES - HEalth woRkfOrcE to meet health challengeS	100
2024098 Strengthening the health workforce in the use of digital technologies	101
2024099 Interprofessional education evaluation and next steps	102
2024100 Interprofessional Medical Education	104
2024101 Inter-institutional analysis of skin of color representation in dermatological lecture content at MD and DO Medica Schools	
2024102 Closing The Gap: Improving Surgical Skills Teaching For Foundation Year One Doctors	106
2024103 Training in ultrasound cannulation better prepares students for modern clinical practice	107
2024104 Examining the Relationships between Work Environment and Stress Coping Mechanisms with Burnout in Medica Students	
2024105 A review of the implementation of Specialist Focus week in Surgery for Queens University medical students in the Belfast Trust	
2024106 Co-designing with emerging health professionals and community members for asynchronous IPE	110
2024107 Increasing capacity to host medical students and improve medical student learning opportunities with single multidisciplinary team meetings	111
2024108 How to navigate specialised foundation programmes for newly qualified doctors in medical education	113
2024110 Unlocking the Specialised Foundation Programme (SFP): Providing the Keys to Clinical Academia through a Natio Teaching Series	
2024111 Skin Cancer Education in the Rural Massage Clinic	115
2024112 IPE Shared Mental Model vs. Groupthink	116
2024113 Students and teachers' perception of the impact of the test on student learning during assessment: A qualitative study	118
2024114 Innovation in care processes in primary care. The experience of using a simulator	120

### Facilitation of a service user group

Prof Ruth Mary Strudwick, Professor in Diagnostic Radiography & Head of AHP, University of Suffolk Ms Sophie Walters, Citizen Involvement Co-ordinator, University of Suffolk

#### **Abstract - Objectives**

The purpose of this paper is to discuss the skills required to facilitate an inclusive service user and carer group from both the facilitator and group member perspective.

Service user and carer involvement ensures that lived experience is placed in a learning context, that this is valued and students have the opportunity to hear about personal experience. Members of the groups have opportunities to co-produce teaching with academics. This provides insight into what life can be like for someone who is in receipt of services. Group members produce podcasts, conduct interviews, deliver lectures, workshops and webinars.

The importance of service user, carer and citizen involvement in health and social work professional education is evident in national and regional policy and in the standards set by the Nursing and Midwifery Council (NMC) the Health and Care Professions Council (HCPC) and Social Work England (SWE). Lived experience has long been recognized as a valuable and key contribution to social work qualifying education since the Department of Health's Requirements for Social Work Training (DoH, 2002). Service user and carer involvement is mandatory and required across all aspects and stages of qualifying programmes and subsequent evaluations of social work education have continued to support its significant contribution (Croisdale-Appleby, 2014). The authors facilitate two groups at their university, †alth Voices and †Social Work Voices, these groups are made up of service users and carers who have lived experience of health or social work services and contribute to the curriculum.

#### **Abstract - Method**

The two authors will use an autoethnographic approach (Ellis et al., 2011) to describe their experiences of facilitating inclusive service user and carer groups at one University. They will outline the skills required to undertake this role and reflect on the skills needed, some of which they were unaware they possessed.

Service users and carers from the groups have also been asked for their feedback about their experiences of the groups and their feedback will be interwoven with the authors' experiences to provide an overview of the groups.

#### Abstract - Results

The reflections of the authors and the service users and carers will be thematically analysed. The perspectives and experiences of all those involved will be presented.

#### **Abstract - Conclusions**

The authors hope that their experiences will resonate with others working with service users and carers in order that everyone can learn and as a result service users and carers can feel included and valued and supported. The authors plan to write a full paper about their experiences, providing recommendations for others facilitating service user and carer groups.

Utilizing the Anthropocene as a framework for teaching global interdependence in an introductory interprofessional education course

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#### **Abstract - Objectives**

Interprofessional education (IPE) provides students of diverse health professions with the knowledge and attitudes to better collaborate in their future practice. In addition to meeting program-specific accreditation standards, effective IPE shows promise to address university core student learning outcomes, such as Global Interdependence. One challenge in using IPE to teach Global Interdependence is a lack of relevant and authentic content that is suitable for early learners who lack significant clinical experience. The Anthropocene recognizes the impact of humans on the planet's climate and ecosystem and is premised on the idea that human activity has been and is the dominant influence on the environment. Many health professional students do not have the knowledge, experience, or skills to collaboratively respond to the complex health challenges that are emerging in the 21st Century, and therefore, a re-evaluation of curriculum is needed to allow a fresh understanding of new health challenges that are related to living and working in the Anthropocene. The Centers for Disease Control's (2022) "Climate Effects on Health" has identified weather-sensitive disease processes that can be included across healthcare curriculum.

The purpose of this presentation is to describe a framework which utilizes the Anthropocene and related health conditions based on The Centers for Disease Control's (2022) "Climate Effects on Health" on student learning outcomes around Global Interdependence in an introductory interprofessional education course with the following learning objectives:

- 1. Identify best practices for preparing educators who design interprofessional education experiences.
- 2. Describe a framework of utilizing the Anthropocene to teach about global interdependence.
- 3. Provide recommendations around Anthropocene-related diseases based on The Centers for Disease Control's (2022) "Climate Effects on Health" diagram.

### Abstract - Method

A descriptive qualitative research design was used to examine learners' reflections of their experiences with course content in an introductory interprofessional education course, Interprofessional Collaboration and Healthcare in a Global Context, at a large private University in the United States. This course is also aligned with two University core curriculum attributes: Identities in Context and Global Interdependence.

#### **Abstract - Results**

Data from 100 students from 8 different health professions in the course was collected in the Fall 2023 term. Course evaluation comments and narrative reflection assignments were analyzed qualitatively via data reduction and compilation to identify evidence of learning.

#### **Abstract - Conclusions**

The inclusion of Anthropocene-related content in an interprofessional course offers a potential way to influence students' perceptions of and knowledge of global interdependence, as well as their understanding of how humans affect the climate and ecology of the world.

# Promoting Interprofessional Dialogue and Collaboration and Between Academia and Clinical Practice Through a Structured Stakeholder Engagement Model at Regional Summits

Dr Anthony Paul Breitbach, Professor, Saint Louis University

Dr Kathryn Bell, Professor, Pacific University

Dr Sabina Kupershmidt, Associate Professor, University of South Dakota

Genevieve Zipp, Seton Hall University

Valerie Herzog, Weber State University

David Henzi, University of Texas Health Science Center San Antonio

Betty Kapralos, Seton Hall University

Kimberly Hoggatt Krumwiede, University of Texas MD Anderson Cancer Center

Prof Elizabeth Swann, Executive Director for the Center of Interprofessional Education and Practice, Nova Southeastern University

#### **Abstract - Objectives**

Gaps between academia and the healthcare industry continue to exist despite the advancement of interprofessional education and collaborative practice (IPECP). The purpose of the Regional Summits is to provide a structured opportunity to facilitate dialogue between Association of Schools Advancing Health Professions (ASAHP) member institutions and industry partners regarding ongoing challenges and the exploration of innovative solutions.

#### **Abstract - Method**

Stakeholders from six ASAHP member institutions and healthcare industry partners engaged in in-person regional summit meetings, which focused on the need for collaboration to build a resilient and practice-ready healthcare workforce. The day concluded with a virtual "harvest" session, facilitated online, which engaged all six regional site hubs in a national discussion of these issues.

#### **Abstract - Results**

Qualitative analysis of discussion documentation identified themes. Based upon the participants in this model process, community engagement, collaboration and communication were described as extremely important. For those to occur, we must ensure the opportunity exists to overcome barriers. Part of that opportunity is the participants' readiness to engage and, in turn, promote resilience and retention. Mentorship also emerged as a key factor throughout the process.

### **Abstract - Conclusions**

The ASAHP Stakeholder Engagement Model provides a reproducible model for interprofessional cross-stakeholder discourse and dialogue, driving a national conversation surrounding ongoing IPECP issues, shared priorities and actions moving forward.

# Utilizing Project ECHO for Sickle Cell Disease: A Global Multidisciplinary Educational Opportunity

Dr Lisa Marie Shook-Chiles, Associate Professor, Cincinnati Children's Hospital Medical Center Ms Christina Farrell, Project Manager, Cincinnati Children's Hospital Medical Center Ms Cami Mosley, Research Coordinator, Cincinnati Children's Hospital Medical Center

### **Abstract - Objectives**

Sickle cell disease (SCD) is a painful, chronic disorder with comorbidities that may be difficult for healthcare providers to manage. Healthcare providers often self-report limited confidence and knowledge in treating patients with SCD. This leads to health disparities and inequities with a lack of access to high-quality health care for children and adults with SCD – a barrier is prominent across the United States, as well as globally.

Sickle Treatment and Outcomes Research in the Midwest (STORM) is a federally funded, regional sickle cell network that was established in 2014 to improve outcomes for children and adults with SCD in Indiana, Illinois, Michigan, Minnesota, North Dakota, Ohio, South Dakota and Wisconsin in the United States. STORM adapted the Project ECHO © virtual telementoring framework to provide multidisciplinary continuing education and build competencies about evidence-based management for children and adults with SCD.

#### Abstract - Method

STORM utilized Project ECHO © telementoring framework to host monthly virtual sessions using Zoom web based platform to host a one-hour session (approximately 45 minute didactic presentation and a 15 minute de-identified case presentation for feedback from medical and psychosocial attendees) beginning in March 2016. Participants were recruited from the Midwest, and continuing education credits were awarded. In March 2020, the STORM ECHO team quickly pivoted to launch a COVID-19 and SCD learning series in response to the pandemic. Individuals with SCD were determined to be in a high-at-risk immunocompromised category by CDC. Moreover, in spring 2022 a Health Equity ECHO cohort learning series for healthcare providers was developed and launched. The curriculum focused on racial justice, race, racism and whiteness.

#### **Abstract - Results**

The STORM TeleECHO program has hosted over 90 sessions with over 400 unique multidisciplinary attendees receiving over 2000 continuing medical education credits; 800 Maintenance of Certification credits; and 300 nursing credits. Multidisciplinary healthcare providers from over 35 states and 5 countries have attended the sessions and evaluations indicate that the program has been instrumental in increasing the self-reported knowledge and confidence of providers. After the launch of the COVID-19 and SCD ECHO, there was an increase of 172% in attendance with representation from 21 states and 4 countries. The Health Equity ECHO cohort included 32 participants from 9 states and collectively provided care to over 1,000 patients with SCD.

#### **Abstract - Conclusions**

Originally adapted to meet a regional educational need, STORM TeleECHO programs have shown to be a promising virtual approach to disseminate education about evidence-based best practices in SCD. Utilizing web technology to link participants can reduce financial and time constraints often faced by healthcare providers, and can build communities of practice around medical and psychosocial management of SCD not only regionally but globally as well to support workforce development and improve outcomes for children and adults

Collaborative practice building: Essential non-clinical competencies that are likely to optimise capability and patient-centred outcomes

Dr Adrian Schoo, Retired Professor, Clinical Education, Flinders University

#### **Short Paper**

Collaborative Practice (CP) suggests individuals working together as a team on a particular task or project. As such, team members need to have appropriate and complementary skills, which is quite evident in Interprofessional Collaborative Practice (ICP).

CP/ICP is patient-centred and requires awareness, emotional intelligence, communication skills, teamwork and leadership to collaborate successfully in complex and dynamic environments. Education and continuing professional development are important to appreciate complexity, prepare for CP/ICP and maintain skills (clinical as well as non-clinical).

Competency or competence is assessed by observable performance, the standard or quality of the outcome of the person's performance, or the underlying attributes of a person such as their knowledge, skills and abilities. In contrast, capability is the extent to which individuals can adapt to change, generate new knowledge, and continue to improve their performance (i.e., being equipped/prepared to deal with unknown situations).

Capability is needed to deal with complexity, ongoing development in areas such as: evidence-based work methods, technology, and how systems respond to these; pressing issues such as climate change and the possible effects these have on health and wellbeing (e.g., mental health); local, regional, national and international issues that affect health care (e.g., food, economic factors, Covid); and, issues that suddenly emerge and that challenge established work practices.

Benefits of optimal CP/ICP are likely to include optimal job satisfaction of team members and health and wellbeing of both staff and patients/clients. The challenge for clinical education is to prepare students and health professionals for CP/ICP and to build capability in health care. This presentation will touch on issues that can challenge educators and offer strategies that can assist building capability in a complex health care environment.

# Consensus methods for outcome setting in interprofessional faculty development: an interactive workshop

Mrs Julie Browne, Reader in Medical Education, Cardiff University

Prof Alison Bullock, Professor, Cardiff Unit for Research and Evaluation in Medical and Dental Education (CUREMeDE)

Prof John Jenkins, Chair, ASPIRE Curriculum Development Panel, AMEE

Prof Derek Gallen, Emeritus professor, Cardiff University

#### Workshop - Objectives

Consensus methods are increasingly used to address complex problems in health and social care education because they offer rigorous and quantifiable information about how far and in what ways a sample group of †experts' (e.g. educators, learners, patients, public or other stakeholders) agrees on a given topic where there are multiple possible responses. An example of the sort of question that consensus methods can help explore is: †What are the most important skills and attitudes in interprofessional educators?' This is an interactive workshop for those wishing to explore the potential of consensus methods in designing faculty development initiatives. The workshop is for educators interested in using consensus methods to assist with complex decision-making: such methods can be invaluable in developing strategy around faculty development, reward and recognition schemes and training and curricula.

In the first part of the session, we will present and discuss some practical issues in using consensus methods: selecting methods, identifying problems, recruiting panel members, specifying acceptable levels of agreement, and analysing, interpreting and making use of the empirical data that result.

For the main part of the session participants will be actively involved in a nominal group. The group will discuss the role and specific skills of interprofessional educators, actively observing how the technique gradually builds in stages towards a group consensus. Group members will engage in structured discussion and voting and there will be opportunities for debriefing and general discussion following the exercise.

After this workshop attendees will be able to

- (1) Describe, assess and compare a number of consensus methods in education research, identifying the benefits and challenges they offer researchers
- (2) Outline the key practical steps in undertaking consensus processes and analysing resultant data
- (3) Discuss how a rigorous, inclusive and complete consensus around key interprofessional educator attributes may be developed using consensus methods.

Delbecq, A. (1975). Group techniques for program planning: a guide to nominal group and Delphi processes. Glenview III.: Scott Foresman

### Theoretical model of interprofessional educator development: an analytical literature review

Mrs Julie Browne, Reader in Medical Education, Cardiff University

Prof Alison Bullock, Professor, Cardiff Unit for Research and Evaluation in Medical and Dental Education (CUREMeDE)

Dr Dorotty Cserzo, Research Associate, Cardiff University School of Social Sciences

Interprofessional education is increasingly seen as an important factor in preparing individuals to work collaboratively in teams for the benefit of patients. However, little attention has been paid to the support and training of the educator workforce that is expected to design, develop, implement, assess and evaluate interprofessional programmes. There are no large-scale studies exploring the skills required by interprofessional educators.

#### **Abstract - Objectives**

Objective: To develop a theoretical model setting out the advanced knowledge and skills expected of an interprofessional healthcare educator

#### Abstract - Method

A descriptive qualitative research design was used to examine learners' reflections of their experiences with course content in an introductory interprofessional education course, Interprofessional Collaboration and Healthcare in a Global Context, at a large private University in the United States. This course is also aligned with two University core curriculum attributes: Identities in Context and Global Interdependence.

#### **Abstract - Results**

We identified 15 knowledge and skills items characteristic of interprofessional (IP) educators based on the 14 papers included in the final review. Eight are relevant for uni-professional educators but present additional complex challenges for IP educators: Skilled communicator, Skilled at debriefing, Reflects on own professional biases and practice, Creates a safe learning environment, Skilled at managing and resolving conflict, Ensures interaction and collaboration, Promotes active learning and Promotes learner reflection.

Seven are unique to IP educators: Knows about the different profession specific topics and educational requirements within the interprofessional setting, treats all learners with respect, regardless of profession, Guides and facilitates interprofessional team formation, Understands and responds to interprofessional team dynamics, experienced in interprofessional team-based practice, Models interprofessional collaboration and Committed to own development as an interprofessional educator.

#### **Abstract - Conclusions**

The ability to conceptualise and express the unique and advanced skills of interprofessional educators is a crucial step in professional development for this group. Recognition of their skills is fundamental to ensuring that healthcare educators are appropriately selected, trained, rewarded and assisted to develop in their educational roles.

### The emotional journey to healthcare educator: a qualitative analysis of 20 interviews

Mrs Julie Browne, Reader in Medical Education, Cardiff University
Dr Tradey Collett, Associate Professor, Peninsula School of Medicine, Plymouth

#### **Abstract - Objectives**

Healthcare practice is changing rapidly, and the future workforce needs to be trained to meet the challenges. At the same time there is a crisis in educator recruitment and retention. While faculty development is often seen as a response to these challenges, there are significant issues with faculty not engaging with and resisting development opportunities. Lack of motivation may be linked to how strongly individuals perceive themselves to have an educator identity. Becoming a healthcare educator involves a significant transition, especially where individuals have strong clinical identities and formal career routes are lacking. We aimed to explore how and why medical education careers may, or may not, develop over time.

#### **Abstract - Method**

We recruited interviewees through an online survey distributed through social media. We conducted 20, hour-long, semi-structured telephone interviews with 20 medical educators at all career stages, who expressed a wide range of educator identity. We analysed the transcripts thematically using an adapted transition model as a basis for understanding the emotions experienced by those undergoing identity transitions.

#### **Abstract - Results**

Transitioning from primary professional identity to healthcare educator involves several identifiable stages (2): an initial period of excitement (or dismay) followed by a †honeymoon period during which the individual gains in confidence and enjoyment. Restlessness and disillusionment may follow this steady phase as a more realistic view of the educator role develops. At some point a crossroads or crisis occurs. At this point, individuals must decide whether to push ahead towards a reconstructed identity and career satisfaction, or to let go and either give up completely or lose their motivation.

Length of time spent as an educator did not correlate with strength of identity with the role. Many early career educators were excited about their roles and likely to report rewarding experiences. Mid-career educators described the practical rewards of teaching (such as career progress); but some also expressed satisfaction that the role fitted with their values. †Fit' between values and activities was associated with strong, positive educator identity. Some educators, however, expressed a sense of disillusionment and resentment which needs further exploration.

#### **Abstract - Conclusions**

Studying the experiences of medical educators at various career stages offers further insights into the characteristics and circumstances that help individuals to make a successful career transition.

By more effectively modelling the emotional impact of the transition process that may lead to a more stable educator identity, we show that some individuals, especially where the role of teacher was not sought or welcomed, express their uncertainty and distress through low mood, resistance and an attempt to minimise the significance of undertaking or increasing teaching duties. These individuals are at increased risk of burnout and disengagement.

# Establishing Psychological Safety and Addressing Power Dynamics: Cornerstones of Successful Interprofessional Practice and Education

Dr Shelley Cohen Konrad, Director, Center to Advance Interprofessional Education and Practice; Professor, Social Work, University of New England

Dr Kelly Lackie, Associate Director, Simulation-based Education & Interprofessional Education, Assistant Professor, Dalhousie University School of Nursing, Dalhousie University

Dr Hossein Khalili, Dean of Academic Administration, Winston-Salem State University

Dean Lising, BSc, BScPT, MHSc, Integration Lead, Collaborative Healthcare & Education, CACHE, University of Toronto

#### **Abstract - Objectives**

- 1.Describe ways to create a psychologically safe interprofessional learning environment to explicitly address difference, conflict, and power dynamics.
- 2. Analyze the role of educators in setting the stage for crucial conversations, fostering interprofessional communication and debriefing for critical reflection.
- 3. Apply learning to prepare students to manage conflict, appreciate their complementarity, and capitalize on their distinctive roles within the healthcare team.

#### **Abstract - Method**

This oral presentation will focus on the essential role of psychological safety in building true and sustainable interprofessional education and collaborative practice (IPECP) models. Psychological safety creates a culture in which anyone involved in the care of patients, e. g. practitioners, educators, health profession students, caregivers, and workers are recognized as having credible contributions to patient care without fear of being demeaned or dismissed (Lackie et al., 2022). Psychological safety further promotes a team climate characterized by interpersonal trust and mutual respect in which people are comfortable being authentically themselves (Edmundson, 1999). In the clinical environment, psychological safety is inclusive of patients and families whose desires and perspectives on decision-making can be stymied when they feel tensions amongst team members and thus do not feel that their opinions will be honored or respected.

Presenters will critically examine individual and systems factors that both promote and impede the development of psychological safety in the classroom, interprofessional immersion activities, and in clinical settings highlighting findings from studies that identify its impacts on IPECP (e. g. Khalili, Hall, & DeLuca, 2014). Individual characteristics such as intellectual humility (Hong, Gavaza, Koch, & de la Pena, 2023), adaptability, management of ambiguity/uncertainty, and empathy will be discussed as will impacts of hidden curriculum and status inequities that serve to disincentivize interprofessional learning early in the educational process (Cohen Konrad et al., 2019). Presenters will offer suggestions on how to explicitly address and debrief difference, conflict, and power dynamics before, during and following psychologically safe learning activities. The role of academic and clinical educators in setting the stage for crucial conversations and fostering interprofessional communication will be reviewed including how to prepare students to anticipate and manage productive struggles (Murdoch, English, Hintz, Tyson, 2020), appreciate complementarity, and capitalize on both their distinctive and overlapping roles within the healthcare team. The importance of building psychological safety and trust in clinical settings will be explored as will the hurdles that educators and preceptors face when unfamiliar with IPE pedagogy and co-creating IPE opportunities with others (K¶nings et al., 2020).

#### Abstract - Results

Attendees will gain knowledge to inform academic and clinical practice that will contribute to building their confidence for engaging with cross-professional learners in difficult and/or conflictual conversations and situations. When educators feel equipped to co-create safe spaces for crucial conversations, they model best practice in taking risks in sharing diverse ideas, practicing conflict management, and conducting effective problem-solving with students, patients, and for each other. Our goal is to highlight the importance of intentional preparation, forethought, and readiness to address conflict and difference from positions of psychological safety, openness, curiosity, and equity leaving participants with appreciation for their value.

We also hope to further emphasize the intersectionality of social justice, advocacy, health equity, and human dignity as values intrinsic to creating psychological safety in interprofessional education curriculum, pedagogy, and practice. This calls upon educators to

recognize how embedded power dynamics and hierarchical structures, beliefs, and assumptions can impede full realization of interprofessional collaborative practice and can be detrimental to quality healthcare for all people. Addressing power dynamics in health education and practice upfront is a critical first step in revising health curriculum and pedagogical models that will better prepare future health professionals for collaborative contemporary practice with diverse patients and across an array of settings.

#### **Abstract - Conclusions**

At the conclusion of the oral presentation, we hope participants take away ideas about how to infuse psychological safety in their teaching to establish supportive spaces for educators, practitioners, patients, and students to have critical conversations that unpack hidden curriculum, create advanced models for productive interprofessional communication, and build learning and practice approaches aligned with interprofessional ethics and values.

# Analysis of participant evaluation of an education program on communication for midwifery students. A case control study

Miss Martina Caglioni, PhD student, Uninettuno University

Mr Paolo Ghisleni, Independent Researcher

Miss Viola Marostica, Student, UniSR

Stefano Salvatore, Associate Professor, Department of Obstetrics and Gynecology, Vita-Salute San Raffaele University and IRCCS San Raffaele Hospital, Milan

Luca Cerniglia, Associate Professor, Department of Psychology, Uninettuno Telematic International University, Rome

#### **Abstract - Objectives**

Effective communication and teamwork among healthcare professionals play a crucial role in achieving optimal outcomes. Communication education has been advocated as a strategy to enhance health professionals' knowledge and repertoire regarding communication practice. These elements form the foundation of sound professional practice. This paper reports the experiences of midwifery students' participation in a 3-day communication training program. The communication educational program (CEP) retreat provides the opportunity for participants to apply core communication skills across different possible scenarios. Participants identified individual communication challenges with experiential role-play tailored to reflect their needs, interests, and health professional backgrounds. Simulated case studies containing both theoretical and practical elements are used to ensure participants practice woman-centered clinical interviewing. The Vervaeke (Vervaeke et al., 2012) model of 4P is used to structure and facilitate communication skills training (see Fig. 1 for structure and content of the communication training). The CEP ran from Friday to Sunday at a Farmhouse one hour far from Milan, with participants staying onsite for the entire duration of the event; a facilitator with 15 years of experience in delivering training to a diverse range of learners was involved as a communication skills trainer.

Figure 1: Structure and content of the communication training

While many educational programs have been developed and despite the positive effects known from the literature, still more research is needed to measure the influence of CEP on both graduate and undergraduate healthcare professionals' communication skills.

To address this concern, we designed this study, aiming to compare different categories of communication skills between students who took part in the CEP and students who didn't. Moreover, we are interested in understanding which category of communication skill is the most developed in our specifical CEP, in order to support students to maximize the learning process.

Furthermore, our second aim is to analyze the participant evaluation of CEP on items such as knowledge, attitude, future relationships and general feedback about the event. In addition, the study reports on the development of the CEP we organized.

#### Abstract - Method

Design: Two groups, case-control post-test design was used to gather data from the participating students using a structured questionnaire. Data was collected between October and November 2023 from participating midwifery students who attended the CEP in October 2023.

On a standardized moment, all participants were offered the Communication Skills Questionnaire (CSQ). All participating students were informed about the questionnaire and the fact that the data would be processed anonymously.

Sample: First, second and third year midwifery students from San Raffaele Vita e Salute University were asked to be voluntarily involved in the CEP. A total of 35 students and 5 professors took part in the educational program.

Data collection-instrument and analysis: To evaluate whether the learning goals for the CEP such as general communication skills, interpersonal communication skills and future relationships with other professionals in healthcare, were achieved the CEP was progressively evaluated with the participating students by a written questionnaire. Seven closed questions were asked to the participants in order to understand the general evaluation of the CEP.

Moreover, all the participants were asked to answer the CSQ. Similarly, students from the faculty of midwifery who didn't take part in the CEP were asked to answer the same questionnaire, to be the control sample; a total of 25 students were the control sample. The items of the CSQ are shown in Table 1. The CSQ contained 29 items divided into two categories: general communication skills (six items, mainly non-verbal communication skills) and interpersonal communication skills (23 items). The general communication skills were estimated on a scale of 1–5 (1, poor; 2, fairly; 3, sometimes good; 4, almost always good; 5, always good). The interpersonal communication skills were estimated on a 3-point scale (0, poor; 1, sometimes good; 2, almost always good) with respect to six

interpersonal relationships such as those with family, best friends, friends, superiors, neighbours and strangers. The total score (CSQ score) was the sum of these scores, and the highest possible score was 306.

Descriptive statistics were used to summarize and describe the data gathered by the questionnaire. Furthermore, a t-test was performed to analyze the differences between the different communication competences (23 in total) between students who took part in the CEP and the control.

#### **Abstract - Results**

Forty people participated in the training program, with 30 taking part in CSQ questionnaire T1 (response rate 75%). All the participants (100%) would recommend this event to other students, 66.7% say they enjoyed all the activities carried out, 33.3% say they liked something and did not like some aspects. 90% of students consider the information received during the CEP to be relevant to their future employment.

It has not been found a significant difference between the students who took part in the CEP and the control group of respectively general communication skills, cooperative skills and assertive communication skills of the CSQ.

We also compared all the 29 items of the CSQ questionnaire (see Table 1) and have been found significant differences in the following: a) Choosing suitable sentences (p=0.039) b) Asking a question(p= 0.033), c) Speaking about own opinion or situation (p=0.045), d) Saying no to other people's requests (p=0.028) e) Starting a conversation (p=0.027) f) Counting good points of others (p=0.046) g) Joining other people's conversation (p=0.013).

Table 1: Factors of the Communication Skills Questionnaire and T-test analysis between the group of students who took part in the CEP and the control group.

#### **Abstract - Conclusions**

The communication educational program, conducted over a 3-day training, received positive feedback and demonstrated a beneficial influence on the adoption of new communication skills. Although additional research is required to assess whether the training effects manifest in observable clinical behaviors, the positive benefits observed, especially in the cooperative communication skills, indicate that further exploration of this initiative would be valuable. The ongoing challenge is to continue educating upcoming midwifery professionals in the realm of interprofessional collaboration. There is a need for further research into teaching methods and curriculum development to assess the actual impact of undergraduate programs on patient care in real-world practice. While many educational programs have been developed and despite the positive effects known from the literature, still more research is needed to measure the influence of CEP on both graduate and undergraduate healthcare professionals' communication skills.

To address this concern, we designed this study, aiming to compare different categories of communication skills between students who took part in the CEP and students who didn't. Moreover, we are interested in understanding which category of communication skill is the most developed in our specifical CEP, in order to support students to maximize the learning process.

Furthermore, our second aim is to analyze the participant evaluation of CEP on items such as knowledge, attitude, future relationships and general feedback about the event. In addition, the study reports on the development of the CEP we organized.

# Development of a blended education program to improve teamwork and communication among midwifery students: findings from a mixed method study

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#### **Short Paper**

#### Objectives

Efficient communication among healthcare professionals plays a crucial role in ensuring optimal care coordination and attaining favorable health outcomes (Kreps, 2016). Studies have indicated that proficient health communication contributes to improved health results, and the establishment of more robust nurse-patient relationships is observed when patients perceive nurses' communication as responsive, compassionate, and respectful.

The communication educational program (CEP) aims to define the knowledge, skills and competences required by the current and future student midwives of the University Vita e Salute San Raffaele to better align the training offered to the requirements of different occupational profiles. By identifying the needs of an evolving labour market, CEP developed initial and continuing training programmes based on suitable and innovative teaching and training methodologies and on study pathways for skilling, upskilling and reskilling the student midwives and midwives' educators workforce.

Stemming from the results of communication skills analysis and competency framework of different years student midwives, CEP:

- 1) defined the future healthcare professionals needs
- 2) developed a future Midwife Education Transformation Map,
- 3) developed initial and continuing training programmes adapted to the evolving requirements of the sector, based on suitable and innovative teaching and training methodologies.
- 4) developed an online Knowledge Centre that collected the outputs of the project, presented curricula, training activities and guidelines for specific target groups.

#### Methods

Design of the training programme and sample

CEP developed a training programme for first, second and third year midwives students. Students were asked to be voluntarily involved in the CEP. The program started in June 2023 and finished in the month of October 2023. It included 3 modules: 1) online courses, 2) knowledge sharing platform and 3) face to face training (see Figure 1 for the activity program Calendar).

- 1) Online Courses: enabled trainers to learn how to produce digitally supported learning experiences focused on communication and to experiment with creative models and approaches to teaching and learning, with a focus on promoting collaborative learning and greater student engagement. Moreover, the study plans of the students of the midwifery degree course were also analyzed and the topics of extracurricular interest were identified, and then presented to the students. The online courses offered to the students were 6 in total. Trainers were experienced lecturers from the San Raffaele Vita e Salute University (minimum 5 years of teaching experience). A total of 54 students took part in the educational program related to the online courses.
- 2) Online repository for knowledge sharing: collects all the content produced by trainers/teachers and online courses. It also collected the material produced during the face to face training by the various groups of students. The platform offers an immersive experience that focuses â€" in addition to content â€" on authors, topics of interest and pedagogical strategies to be used to make the most of the learning experience.
- 3) Live, on-site training sessions: it took place from Friday, 20th to Sunday 22nd October at a Farmhouse one hour far from Milan (Italy), with participants staying onsite for the entire duration of the event; a facilitator with 15 years of experience in delivering training to a diverse range of learners was involved as a communication and teambuilding skills trainer. The Vervaeke (Vervaeke et al., 2012)

model of 4P is used to structure and facilitate communication skills training. A total of 35 (out of the 54 who took part in the online courses) students and 5 lecturer midwives took part in the live training sessions.

The Course is based on a "connectivist" approach, where every learner worked through a personal web space and built knowledge in collaboration with other learners. The CEP can be summarized as:

- Open: because it encouraged learners to use the online repository where all the information were fully available and easily
  accessible
- Collaborative: because apart from individual work, participants were engaged in group activities, sharing peer-feedback and interacting with others within and beyond the CEP community of practice
- Active: because it was be primarily based on a number of practical activities ("things that can be done"), aiming to help participants rethink teaching and learning through different way of communication practices.

Figure 1: Program of the CEP planned from June 2022 until October 2022

Data collection-instrument and analysis

In order to assess the attainment of learning objectives in the CEP, including general communication skills, interpersonal communication skills, teambuilding and future relationships with healthcare professionals, a systematic evaluation was conducted with participating students using a written questionnaire. Before taking part in the CEP, students were asked about their expectations and the concrete need for their future occupation. The evaluation process involved posing a qualitative, semi structured questionnaire to participants, aiming to gauge their overall assessment of the CEP.

Qualitative analysis

The material for this study was collected as a part of a larger survey on self-report feedback about the CEP. The questionnaires were mailed to the 35 students who took part in all the different educational sessions (both online and face to face). A total of 30 answers were collected. Closed and open-ended questions were part of the questionnaire (see Table 1 for the questions).

An interpretational approach was used for qualitative analysis of the open-ended answer (Question 7). The aim was to generate categories of reasons for satisfaction and dissatisfaction of the CEP by using content analysis of the data.

#### Results

Throughout its development, the CEP has created:

- 1) Curriculum for the eLearning repository: the course-curriculum defines the contents, learning method and activities of the CEP sources, providing to detail the framework on how users can participate and be involved.
- 2) CEP Intensive Training Sessions: the e-learning platform was followed up by 3 days intensive training sessions (live on-site training sessions), where participants worked together to develop new communication and teambuilding skills.

Quantitative results

Results from question 1, 3, 4, 5 and 6 are reported in table 1.

Table 1: CEP feedback from midwifery students who take part in the events, with particular focus on reason of dislikes. Results are reported in number of participants and corresponding percentage.

#### Qualitative results

Three predetermined topic areas were established reflecting the interview:

1. More focus on the practical aspects of future work.

Most of the students who expressed a negative opinion about the event would like more practical in-depth study and the simulation of case studies. For example: "I would add a few more references to our practice, especially with respect to the conduct of birth accompaniment courses" or "I would have focused much more on what concerns our real field of work by dedicating much more time to it and sacrificing other games or exercises that I did not find particularly useful" and finally "I would have dealt more with communication purely in our midwifery field, giving practical examples that can help us in clinical practice as students and future healthcare professionals."

2. Aspects that can be improved in the theoretical sessions.

Some students pointed out that the theoretical session was too long or complex to follow, for example: "The theory part is a bit too long, but overall the judgment is very positive" or "Too many topics explained in too much detail". It seems that the students would have preferred that even in the theoretical explanation there was the presence of more practical examples, in fact one student reports "I would have included more theory inherent in our field".

#### 3. Organizational and logistical elements.

Some students pointed out that they would change some organizational aspects, particularly with regard to the face-to-face event. E.g. "I would have preferred the event to have taken place at a different time of the year to be able to take advantage of the outdoor space of the house in which he took part" or "I would have taken full advantage of Sunday to be less in a hurry to conclude the activities" and again "We should have more days available to allow adequate time for each activity".

#### Conclusions

CEP acknowledges that many of the major societal changes currently affecting the communication are expected to have a significant impact on the healthcare system and, more in particular on midwifery practice. To meet the new learning needs, teachers need to move away from traditional teaching methods and adopt educational approaches that are more in line with the way students learn today and the new demands for the workforce. Furthermore, a major emphasis on professional, practical and vocational training will be needed. In order to pragmatically address these changes, the CEP we organized, worked to align the educational programmes and teaching methods to the needs of future operational scenarios and generations of workers. Students unanimously appreciated the participation in this voluntary event and the teaching methods. We will repeat the event in the future, in a more structured way, considering the students' feedback. Future research is needed to better understand what is the right combination of theory and practice in the field of midwifery in order to improve the communication and teambuilding skills of future midwives.

#### **REFERENCES**

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# Evaluation of a peer support training programme for healthcare workers in an acute hospital in Singapore

Mr Muhammad Noor Latasa Bin Abdul Latiff, Senior Medical Social Worker, KK Women's and Children's Hospital

#### **Abstract - Objectives**

The "Mutual Care II" is a peer support training programme conducted by the Medical Social Work Department, KK Women's and Children's Hospital, Singapore. Delivered over a one-day period, it aims to train healthcare professionals in KKH in providing peer support to enhance workplace mental health resiliency. During the training, learners are equipped with knowledge of a helping framework and basic communication skills. Since its first run in February 2022, a total of six trainings have been delivered, with an average of 16 learners per session. As the programme has been delivered for 2 years, an evaluation was undertaken to measure if the training has met our learners' needs and to discover if they have been able to apply the skills learnt.

The objectives of this evaluation were:

- 1. To gather participants' feedback regarding content relevance, engagement and satisfaction of the training programme.
- 2. To measure participants' perception of their ability to apply knowledge or skills learnt.
- 3. To understand the possible factors that helped participants apply the key knowledge and skills learnt.

#### **Abstract - Method**

The Kirkpatrick Model guided this evaluation. Two different self-evaluation surveys were used at different time points. The first evaluation aimed to measure learner's reactions (Level 1) to the training programme while the second evaluation aimed to measure learner's learning and behavioural change as a result of new skills acquired (Levels 2 and 3).

For the first evaluation, an anonymous online survey was administered to learners immediately after their respective trainings ended. It contained questions pertaining to learners' perceptions of content relevance, engagement, and satisfaction. The survey consisted of Likert scales (e.g., "Choose from a scale of 1 (Strongly Disagree) to 5 (Strongly Agree) - The content is relevant to my role as a peer supporter") and open-ended questions (e.g., "What I enjoyed most about this training is").

For the second evaluation, an anonymous online survey was administered to participants in early December 2023. Participants were categorised into three groups according to the duration of time since training completion – (i) three months, (ii) six months, and (iii) nine months and beyond. The survey contained questions that requested learners to rate the degree of their ability in applying key knowledge or skills learned. It also sought feedback on the factors that learner's felt had contributed to their ability to recall and apply the knowledge and skills learnt.

#### **Abstract - Results**

A total of 97 learners participated in the peer-support training programme delivered six times over the course of two years. 50% of the learners were nurses or clinic assistants, 25% were allied health professionals such as case workers, laboratory staff, social workers, or pharmacists. 12% were medical officers while the remaining 10% were administrative staff.

For the first evaluation which was administered to all 97 learners, 85 learners responded to the immediate post-training survey (88%). Learners reported that the content of the training was highly relevant to their role as a peer support (99% rated 4 and above out of 5), reported feeling satisfied with the training programme (100% rated 4 and above out of 5) and reported that they felt engaged during the training (97% rated 4 and above out of 5). Specifically, several learners shared that the role play demonstration and practice made them feel engaged in learning. Interactive group discussions, the trainers' ability to facilitate active learning experiences, and the sharing on practical strategies were identified as key components that made the training satisfying and engaging.

The second follow-up evaluation was administered to 77 learners instead 97 as 20 learners had left the organization. 43 out of 77 learners responded to the evaluation (56%). Among them, 15 learners completed this evaluation three months post-training, 12 completed it six months post-training, and 16 completed it more than nine months post-training.

Learners reported moderate to very strong on-the job application of key knowledge and skills learnt. Findings also show that in general, learners who completed their programme within 3 months rated themselves higher in their ability to apply the skills as compared to learners who completed their trainings more than six months ago.

Factors that contributed to learners' ability to apply the knowledge and skills included the hands-on practice and feedback received during the training, and having guided scripts and notes as reference. Learners shared that additional training aids and post-training practice and discussion sessions would further help them consolidate the knowledge and skills learnt.

#### **Abstract - Conclusions**

Several learning points have emerged from this study. First, findings from this study suggest the importance of incorporating adult learning principles in the design and delivery of a training programme to increase content relevance and learners' sense of engagement and satisfaction. These include relating learning closely to real life situations, providing learners with opportunities and support for practice and feedback, and involving learners in discussion and learning using active learning strategies. These can be achieved through employing a mix of learning activities that includes sharing of practical strategies using relevant case studies, role play practice exercises and interactive discussions between learners in small and big groups.

Second, learners' ability to apply the knowledge and skills learnt is likely to diminish over time. This finding resonates with the literature surrounding information processing perspectives which generally posit that the lack of utilization, practice and processing at deeper levels decreases individuals' ability to recall and apply skills learnt. Hence, it is important for trainers to consider the development of resources and post training activities to help with memory activation and skills application. These may include developing training aids such as cue cards and follow-up practice or discussion sessions such as table-top exercises to recall and enhance skills application. Limitations of this study and implications for future evaluation will be discussed.

A mixed methods investigation of the relevance of interprofessional socialization during studies for the profession – Results from students and young professionals in the health professions

Dr Katrin Kunze, Research Assistant, University of Applied Sciences and Arts

#### **Abstract - Objectives**

Interprofessional education (IPE) as a prerequisite for interprofessional collaboration in healthcare has become increasingly important in Germany, too. As part of your studies, socialization processes take place on which the successful adoption of job-related values, behavior and attitudes depends (Clement, 2020). This lecture focuses on the interprofessional socialization (IPS) of nursing and therapy professions during studies and in the career entry phase. The results of the survey of students and young professionals from Germany about their beliefs, behavior and attitudes towards interprofessional collaboration are presented and impulses for training, practice and research are derived. This work was created as part of the graduate school 'Interprofessional Teaching in the Health Professions' (ILEGRA). ILEGRA is the world's first graduate program to focus on interprofessional teaching in health care professions and was supported by the Robert Bosch Foundation.

#### **Abstract - Method**

This study is designed as a mixed-methods investigation. The study included students and academic career starters from the health professions (nursing, speech therapy, occupational and physiotherapy). The standardized questionnaire on interprofessional socialization and appreciation "Interprofessional Socialization and Valuing Scale" (© Gillian King) in the German version (ISVS-21-D) (Mahler et al., 2022) was used as an online survey in these target groups. In addition, the career starters were asked retrospectively about interprofessional learning during their studies and current interprofessional collaboration in professional practice. The surveys took place at different times and include a six-month longitudinal survey of the career starters.

#### **Abstract - Results**

Data sets from 222 students and 60 young professionals were taken into account for the overall evaluation. The key results of the study will be presented in the lecture. These include the fact that there is a slight improvement in the self-assessments of the ISVS-21-D over time from studying to starting a career. The increase is greatest during your studies. The level at the end of your studies remains largely unchanged throughout the phase when you start your career. The results show that an interprofessional socialization takes place during studies. They also show that career starters feel well prepared for interprofessional collaboration through their studies, which is an essential prerequisite for interprofessional collaboration in the career entry phase. Furthermore, the career starters found practical and realistic learning methods particularly suitable for interprofessional learning. Against this background, impulses are given for interprofessional training and practice as well as research in this area. The results are presented primarily with a view to possible transfer to other training systems outside Germany. In this respect, these results may also be of interest to researchers and developers of study programs from other countries.

### **Abstract - Conclusions**

Independent of specific IPE interventions, the study looks at the self-assessments of students and young professionals regarding their beliefs, behaviors and attitudes towards interprofessional collaboration from 12 different German universities. The results are presented with regard to possible transferability to other education systems. The discussion is conducted with reference to the current study results and the methodological limitations. Overall, based on the results, the importance of interprofessional socialization in higher education is emphasized. Possible factors influencing interprofessional socialization during studies and in professional practice are outlined. In addition, impulses are given as to how education and research in this area can be further developed.

Understanding the scope of practice of physician associate/physician associate comparable professions using the World Health Organization global competency and outcomes framework for universal health coverage

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#### **Abstract - Objectives**

Background: Physician Associate and Physician Associate comparable (PA/PA-comparable) professions are classified by the 2012 International Labour Classification of Occupations within ISCO group 2240 paramedical practitioners. However, to date, there is no single global framework which categorizes and/or describes their scopes of practice, or a single unifying occupational group name. In 2022, the World Health Organization (WHO) published its Global Competency and Outcomes Framework for Universal Health Coverage which focuses on the practice activities for health workers with a pre-service training pathway of 12-48 months, thus including many PA/PA-comparable roles. In this study we describe the similarities and differences between the SOP documents for PA/PA-comparable professions with a pre-service pathway of 12-48 months, thus excluding any extra-training and specializations, from 25 countries using the WHO Framework as a frame of reference.

#### **Abstract - Method**

SOP documents were collected from 25 countries and mapped to the WHO Framework by 3 independent reviewers. We used descriptive statistics to examine the percent agreement between the WHO Framework and SOP documents by country, as well as the ubiquity of each WHO practice activity across the examined documents. To test the hypothesis that country-specific economic indicators and healthcare workforce metrics may be linked to the presence or absence of specific SOP elements, we utilized Wilkoxon and Fisher Exact tests to examine associations between World Bank economic indicators and country specific healthcare workforce metrics and presence/absence of specific WHO Framework practice activities within each SOP.

### Abstract - Results

We identified significant heterogeneity between the WHO practice activities reported in the 25 SOP documents, particularly related to the provision of individual health services. We also identified statistically significant associations between World Bank economic indicators and country specific healthcare workforce metrics and presence/absence of the following seven practice activities relating to Individual Health, Population Health, and Management and Organization practice domains: (1) "Formulating a judgement following a clinical encounter," (2) "Assessing community health needs" (3) "Planning and delivering community health programmes," (4) "Managing public health communication," (5) "Developing preparedness for health emergencies and disasters, including disease outbreaks," (6) "Providing workplace-based learning and supervision," and (7) "Participating in evaluation and research." In each case, presence of the above practice activities was associated with lower health economic and workforce indicators, suggesting that these SOP practice activities are more common in lower income countries and countries with a smaller per-capita health workforce.

#### **Abstract - Conclusions**

The WHO practice activities provide an effective framework to catalogue and compare the responsibilities of PA/PA-comparable professions recorded by country specific SOP documents. This approach could also be used to compare different occupational SOPs within a country, as well as SOPs between countries. The authors propose that additional information relating to the types of procedures and the level of supervision or autonomy would enable a more comprehensive comparison of SOPs, going beyond the granularity offered by the WHO framework. At that level, the evaluation could then be used to inform gap analyses for training needs in the context of migration, or to better understand the health team skill mixes across different countries. The study also offers reflections on the importance of clarity of intended meaning within the SOP documents.

## Humanness in Learning: Nurturing the Human Spirit

Prof Jennifer Graebe, Director, Accreditation NCPD and Joint Accreditation, ANCC

#### **Short Paper**

Healthcare providers are entrusted with the well-being of individuals, making it imperative that they possess not only clinical expertise but durable skills. The integration of humanness into the learning process is instrumental in complementing intellectual behaviors, also referred to as durable or soft skills, with essential qualities such as empathy, collaboration, and emotional depth. Focusing on humanness in the learning environment enhances comprehension, motivation, and the development of well-rounded individuals who are not only intellectually adept but also socially and emotionally aware. Healthcare providers must make complex decisions often under emotional stress.

Humanness in healthcare serves as a powerful motivator in resilience. Healthcare providers who feel connected to their peers and patients are more likely to have a sense of purpose, and less job-related stress. This sense of connection creates a supportive and inclusive environment where there is a sense of feeling value, inspiration to pursue excellence, joy in work, and ultimately self-transcendence.

Prioritizing humanness in the learning environment for healthcare providers is essential for producing well-rounded individuals who are not only intellectually proficient but also socially and emotionally aware. This holistic approach enhances comprehension, motivation, and the development of ethical values, ensuring that healthcare professionals are not only skilled practitioners but also compassionate and empathetic caregivers. This presentation will explore the significant role of humanness in healthcare, emphasizing its capacity to cultivate critical thinking, creativity, and ethical values, thereby enriching the educational journey, and purpose.

Graebe, J. (2024). Humanness in Learning: Nurturing the Human Spirit in Accredited Nursing Continuing Professional Development, The Journal of Continuing Education in Nursing 55(2), XX-XX.

### To Team or not to Team!

Prof Jennifer Graebe, Director, Accreditation NCPD and Joint Accreditation, ANCC

#### **Short Paper**

Enhance Interprofessional Education Opportunities for Healthcare Teams through Joint Accreditation. The first and only innovation in the world offering multiple accreditations in 1 review process, Joint Accreditation promotes interprofessional continuing education (IPCE) activities specifically designed to improve interprofessional collaborative practice (IPCP) in health care delivery. A leading model for interprofessional collaboration and professional governance, Joint Accreditation establishes the standards for education providers to deliver continuing education planned by the healthcare team for the healthcare team. Jointly accredited providers include education companies, universities, nonprofits, and government agencies. In this session, learners will hear how to position their program as a strategic partner in healthcare improvement initiatives and demonstrate a clear commitment to continuing education by the team for the team to improve healthcare delivery and patient care.

# The perspectives of healthcare professionals on the concept and characteristics of clinical leadership – a qualitative study in Nursing Homes

Ms Nele De Roo, Lecturer & researcher, Artevelde University of Applied Sciences Mrs Sabrina Nachtergaele, Researcher, Artevelde University of Applied Sciences

#### **Abstract - Objectives**

Nursing homes face a critical need for competent healthcare professionals to provide qualitative care and ensure positive resident outcomes in this complex working environment. Clinical leadership is an informal type of leadership in the healthcare setting and is usually linked to nursing care. Research shows the positive impact of clinical leadership on nurses' quality of care and job satisfaction. During the last decade, care changed with a growing emphasis on multidisciplinary care and new profiles of healthcare professionals emerged. In this new context the concept of clinical leadership needs to broaden to all healthcare professionals in healthcare settings. Therefore the aim of this study is to conceptualise and identify characteristics of clinical leadership in the multidisciplinary nursing homes setting.

#### **Abstract - Method**

A qualitative study was conducted in Flanders, Belgium, using semi-structured focus group interviews (n=5) with healthcare professionals (n=41), including nurse assistants, licensed practical nurses, registered nurses, occupational therapists, recreational therapists, psychologists, and gerontologists. Interviews were audio-taped, transcribed, analysed and interpretated by using a thematic analysis based on descriptive phenomenology.

#### **Abstract - Results**

The analysis of the clinical leaders' personal characteristics in nursing homes were grouped into eight themes: 1) person-centred, 2) effective communicator, 3) clinical expert, 4) team-based worker, 5) visionary, 6) committed, 7) resilient, and 8) responsive. This leads to a definition of clinical leadership in nursing homes: they can be defined as passionate healthcare professionals providing person-centred care with strong communication skills. They are clinical experts in their field and motivated to engage in lifelong learning. They are team players with informal leadership skills. They are visionary, committed, resilient, and responsive.

#### **Abstract - Conclusions**

Awareness of the definition and the main characteristics of clinical leadership is necessary to facilitate the identification, support, and development of healthcare professionals. Focussing on the development of competencies, training courses, and monitoring and assessment methods is necessary to improve the evidence of clinical leadership in nursing homes.

# Changemakers in healthcare: validation of a competency framework for innovative behaviour of healthcare professionals

Mrs Sabrina Nachtergaele, Researcher, Artevelde University of Applied Sciences Ms Nele De Roo, Lecturer & researcher, Artevelde University of Applied Sciences

#### **Abstract - Objectives**

There is a growing need for healthcare professionals to demonstrate innovative and intrapreneurial behaviour to tackle some of the major challenges that healthcare faces. This type of behaviour can play a crucial role in improving patient care, organisational effectiveness and professional satisfaction. It is crucial to understand the competencies that contribute towards innovative behaviour and intrapreneurship of healthcare professionals. Therefore this study aims to develop and validate a competency framework for innovative behaviour and intrapreneurship in healthcare.

#### Abstract - Method

A mixed-methods study was undertaken to validate a competency framework designed to assess innovative behavior and intrapreneurship within healthcare professionals. Drawing insights from existing literature and the Entrecomp Framework of the European Union, a nominal group technique was implemented, bringing together a diverse cohort of healthcare professionals (N=12). The foundational components of the competency framework for innovative behavior and intrapreneurship in healthcare were meticulously crafted through a focused group discussion. Subsequently, a three-round Delphi method engaged a panel of experts, facilitating valuable feedback, refinement of perspectives, and adjustment of the framework's language. The emphasis was placed on validating the competency framework by scrutinizing its relevance and practical applicability in the context of healthcare innovation and intrapreneurial initiatives.

#### **Abstract - Results**

A competency framework has been developed, structured around three pivotal clusters: (1) ideas & opportunities, (2) resources, and (3) action. Within each cluster, a well-defined set of indicators, (ranging between 6 and 13), delineates the essential competencies requisite for fostering innovative behaviour and intrapreneurship. These competencies are characterized, offering a nuanced understanding at varying skill levels—spanning from foundational and intermediate to advanced and expert levels. This framework serves as a guide, empowering healthcare professionals to cultivate and enhance their intrapreneurial mindset and competencies.

### **Abstract - Conclusions**

A validated competency framework for innovative behaviour and intrapreneurship can be used by healthcare professionals to understand what competencies are feasible to develop and grow in innovation. This framework not only enables professionals to assess their own competency levels but also provides insights into specific areas where individual healthcare professionals can focus on growth and development.

# Development and validation of tools for assessing characteristics and influencing factors for the development of Clinical Leadership

Mrs Sabrina Nachtergaele, Researcher, Artevelde University of Applied Sciences Ms Nele De Roo, Lecturer & researcher, Artevelde University of Applied Sciences

#### **Abstract - Objectives**

Clinical leaders, frontline nurses involved in daily patient care, inspire and motivate others without formal authority. Key characteristics include clinical expertise, flexibility, communication skills, responsibility, and vision towards the future. To optimize the positive impact of informal clinical leadership, it's crucial to evaluate contextual factors affecting development, such as the work environment, formal leadership style, professional identity, and team dynamics. Recognizing and assessing these elements is vital for understanding and supporting nurses' development. This study aimed to create and validate a self-assessment tool assessing (1) clinical leadership characteristics and (2) influencing factors on nurses' clinical leadership development.

#### Abstract - Method

The Clinical Leadership Self Assessment Tool (CLSAT) and the Clinical Leadership Influencing Factors Assessment (CLIFA) was developed throughout four phases of scale development and validation: (1) defining the construct, (2) development of the tool, (3) validation of the tool and (4) psychometric evaluation between September 2022 and June 2023.

#### **Abstract - Results**

In the initial phase, face validity assessed the relevance of the tool's questions. Content validity ensured comprehensive coverage with relevant questions, gauged by the Content Validity Index (CVI) through a two-round Delphi procedure with 27 experts. Following, a pilot study ensured the questionnaire's clarity and usability, based on feedback from three participants. Construct validity and internal consistency were assessed.

#### **Abstract - Conclusions**

The CLSAT comprises 32 items measuring five unidimensional components, while the CLIFA comprises 27 items measuring four unidimensional components. Both tools provide educational and professional enhancements and have the potential to facilitate the creation of tailored training programs, leading to more precise assessments of clinical leaders' characteristics and a deeper understanding of their influencing factors.

# Al-ding the ED: Exploring the potential for artificial intelligence (AI) to support medical decision-making in emergency departments (EDs)

Ms Raisa Ladha, PhD Student, McMaster University

#### **Abstract - Objectives**

The emergency department (ED) is a particularly unique healthcare setting given the rapid yet complex decision-making that is routinely expected of healthcare providers within this space. Although artificial intelligence (AI) is being described as having the potential to transform medical decision-making in emergency departments, it is simultaneously being met with caution given how much uncertainty there is around the role of AI in healthcare and the extent of its influence on medical decision-making as it pertains to patient care. In consideration of the lack of medical training around AI, this scoping review seeks to answer the following questions: (1) What information gaps exist pertaining to the utilization of AI in medical decision-making within emergency departments?; (2) How can AI be positioned as a tool that compliments the expertise of healthcare providers in emergency departments?; (3) What are the facilitators and barriers to medical decision-making that are introduced by AI to emergency departments?; and (4) How can AI support equitable decision-making and care provision within the ED?

#### **Abstract - Method**

A scoping review of academic literature on this topic was conducted utilizing the Arksey & O'Malley framework due to its conduciveness to mapping and assessing the nature, range, and extent of available research. The scoping review was conducted in accordance with the steps delineated by Arksey & O'Malley (2005). In order to identify the relevant studies, search criteria pertaining to the publication date, country of publication and article availability were utilized. The examined literature sample (N = 130) was composed of full-text articles which were published from 2001 onwards and written within a Canadian or American context. These criteria were selected due to the recently occurring and ever-evolving discourse around AI in healthcare, as well as the commonality of overcrowding occurring in emergency departments across Canada and the U.S. Articles were selected based on the extent of their relation to the research questions. The articles that were analyzed primarily focused on emergency medicine and discussed AI within the context of medical decision-making at various stages of the care journey – from triage to discharge. The data was charted in Microsoft Excel and the following codes were utilized: Artificial intelligence, Healthcare provider perceptions, Healthcare experience or delivery, and Health equity. These codes provided clarity around how articles described the role(s) of artificial intelligence in healthcare, the perception and reception of artificial intelligence by healthcare providers, its implementation outcomes and effects on healthcare experiences, and its potential to advance healthcare in an equitable manner.

#### **Abstract - Results**

The majority of articles discussed artificial intelligence (AI) in an explanatory or exploratory manner, focusing on what AI is and making a case for its potential. This is understandable given the novelty of AI and how the use of AI in emergency departments (EDs) is still in its early stages, thus limiting the amount of experiential data that would be available - for instance, due to limited resourcing or the lack of training pertaining to the knowledge, critical appraisal, and application of AI in healthcare. Analysis of the selected articles revealed that healthcare providers currently sit on the periphery of AI research, wherein they are not typically engaged by researchers or consulted for their direct, frontline experience with patients. This is concerning given that healthcare providers are encouraged in the available literature to partner with AI and how it has been described as transforming the patient-provider relationship into a "doctorpatient-machine triad." To support this shift and to utilize AI as a means of strengthening the health workforce for system transformation, it is important to understand the workflow of healthcare providers in the ED, as well as how they feel about human-Al interactions. While AI has potential to improve healthcare by streamlining various processes, the available literature demonstrates that the benefits of AI may not be experienced equally and that there may be new risks or harms being introduced within certain populations. For instance, numerous sources found that disparities in health outcomes for marginalized populations can be easily exacerbated if equity is not an active priority in the development or utilization of AI due to its susceptibility to bias and its inherent risks. Ultimately, when considering the equity-related implications of AI in healthcare, one must consider who exactly would be benefitting from the more efficient system that AI is being touted as enabling, what the costs of this system are (if any), and how efficiency can be attained alongside equity as opposed to at the expense of it.

#### **Abstract - Conclusions**

This scoping review provides necessary clarity around the impact of AI on medical decision-making in the ED, as well as its implications for the future of healthcare delivery. It demonstrates how healthcare providers in emergency departments can position AI as a tool that compliments their expertise and enhances the care that they provide. The results of this review are being utilized to inform a mixed methods study centring the perspectives of healthcare providers on how AI can be introduced to the medical decision-making process in a manner that ensures efficiency whilst enabling them to fulfil their ethical obligations to patients and provide quality, person-centred care. This study, occurring in alignment with the World Health Organization's Ethics & Governance of Artificial Intelligence for Health report, will support the development and implementation of AI applications that promote fair and equitable medical decision-making in the ED. Key deliverables from this study include educational resources that feature strategies to support the day-to-day functioning of patients and providers in an AI-enabled environment so that AI can be leveraged to facilitate optimal healthcare experiences and outcomes. This study will build the capacity of healthcare providers to utilize AI for medical decision-making in emergency departments, thus improving their workflow and helping to reduce provider burnout. Ultimately, it will ensure that AI is being developed and applied as a supportive tool that advances care provision and enables a more efficient yet equitable future for healthcare.

# Creating high quality IPE resources and workshops: Tools, Tips and Techniques A Case Study

Mrs Alison Power, Faculty Development Priority Group Co-Lead, CAIPE Dr Melissa Owens, Director of Nurse Education, University of York

#### **Short Paper**

#### Background

CAIPE (Centre for Advancement of Interprofessional Education) was established in 1987 and is the UK leading organisation for Interprofessional Education. It is made up of members from Higher Education Institutions (HEIs) and health and social care organisations across the UK, including some international membership. Service users and carers, as well as students, also form an important part of CAIPE's membership, with its overarching aim being to 'promote and develop the health and wellbeing of individuals, families and communities through IPECP (interprofessional education and collaborative practice) and related research, facilitating the development of a workforce fit for purpose' (CAIPE 2020). In 2022 CAIPE launched its new Five Year Strategy (2022-2027) with Board Members leading on four areas of priority: Research, Standard Setting, Translation of Evidence into Practice and: Faculty Development. This presentation will focus on the latter of these priorities.

#### Case Study

As Co-leads of the CAIPE Faculty Development Group, our priority has been to support and facilitate the development of IPE across the CAIPE community through the delivery of workshops and the development of an online learning space containing a suite of resources to support higher education institutions and other educational organisations through departmental, curriculum and assessment guidance.

The CAIPE Strategy identifies our aims as being to:

- Facilitate the understanding, interpretation, and implementation of CAIPE standards for interprofessional education.
- Clarify the skill set required of the interprofessional educator.
- Create guides for the curriculum and interprofessional course structures.
- Provide guidance on assessment strategies for interprofessional education.

This presentation will discuss the challenges and opportunities we are facing in achieving CAIPE's aims including the delivery of national and international workshops and creating a suite of resources which are accessible and interactive (Tools, Tips and Techniques).

# Interprofessional workforce systemic approach: how can you facilitate leadership from your interprofessional champions and learners?

Dr Marie-Andree Girard, Clinical adjunct professor, Anesthesiologist, Clinique AGM

#### **Short Paper**

Effective interprofessional education and collaborative practice (IPECP) are vital for the consistent delivery of safe and high-quality health and social care. Although increasingly recognized internationally, fragmentation between different career stages and governing bodies with different powers, influence and responsibilities across diverse international settings limits moving IPECP from the periphery to the core of health and social care workforce planning.

Even where flexibility is provided within regulatory and other frameworks, individual professionals, and the bodies to which they look for guidance, have limited understanding of the systemic implications and restrictions to integrated interprofessional care they create. More effective clarification and communication will be essential to identify areas of improvement and relevant competencies.

Achievement of this objective requires a new level of common interest, understanding, prioritization and collaboration across these traditional divides. Experience and enforced changes during the COVID pandemic have demonstrated that change is possible, in concepts associated with the scope of practice, entrustment, "task shifting", "task sharing" and credentialling of professional activities. This workshop is intended to foster active reflection on health and social workforce global regulation and policies through fostering interprofessional competencies within one's system and strength / weaknesses / threats / opportunities identification within one's current learner to practitioner continuum to promote effective interprofessional collaboration.

#### Who should participate:

Anyone interested in accreditation, regulation, system-level changes related to integrated care workforce planning and/or IPECP.

#### Structure of workshop:

#### Plenary:

Presentation of foundational notions on IPECP, integrated care workforce and of a systemic analysis grid for strength, weaknesses, and opportunities identification (©Marie-Andree Girard MD LLD) (15 min)

Small group discussion (depending of number of attendees):

Analysis of each participant's own healthcare system (5 min)

Identification of each small group's two major elements of each: strengths, weaknesses, opportunities, and threats (20 min)

Plenary:

Based on each small group strengths and opportunities, formulation of a common agenda to be taken forward subsequently, taking account of different international structures and processes. (20 min)

#### Learning objectives:

To develop a "nucleus" of understanding and effective international collaboration between individuals and organisations, including in the spheres of education & training, accreditation & regulation, and workforce planning at policy, commissioning, and service delivery levels.

To allow networking between individuals with relevant responsibilities, powers, and influence.

#### Intended outcomes:

To create a common understanding on the ramification and complexity intrinsic to health and social care workforce policy. The initial stage in the development of a consensus statement through Interprofessional. Global is already in motion to set this out at a high level, to highlight evidence and experience which already exist and to identify valid processes to evaluate the impact on outcomes of benefit for patients, professionals and healthcare systems.

## Approaches to visualize classification in eHealth system

Dr Rika Levy-Malmberg, Senior lecturer, Novia University of applied Sciences Ms Sirkku Säätelä, Senior lecturer, Novia University of Applied Sciences

#### **Abstract - Objectives**

Background: Finland is currently undergoing a significant shift towards nationwide electronic processing of patient and client data within the social and health care sectors. The primary objective is to enhance patient safety and improve the availability of information. This transition aims to boost the interoperability of eHealth systems and streamline the national transfer of patient data. The implementation of the Finland Care Classification (FinCC) plays a crucial role in this initiative, as it assesses patient needs through nursing diagnoses, executes necessary interventions, and assesses the accessibility and transferability of care results (THL, 2024). However, a descriptive study conducted in 2022 revealed suboptimal utilization of FinCC in Finnish hospitals. The three most frequently used nursing diagnosis components covered only about one-third of the total 17 components. The study also highlighted variations in the prevalence of different components among different hospitals, offering opportunities for benchmarking (Mykkänen et al., 2022).

The aim: is to enhance the expertise of nursing faculty members in the construction of FinCC within the eHealth framework and discover innovative approaches for visualizing the classification. This is intended to support supervisors and lecturers in guiding students through the implementation process.

#### **Abstract - Method**

Methods: This action research project comprises three phases. In the initial stage, a survey was carried out to assess the faculty members' future educational needs. The second phase involves developing supplementary materials to enhance the visualization of the classification. The third and final phase will focus on the evaluation of the project.

#### Abstract - Results

Results: Initial findings reveal the design of a structured education program, which includes workshops tailored for faculty members. The FinCC structure has been organized into a concise pocket-sized folder that is printable and applicable in both clinical classes and actual clinical practice. However, a thorough examination of the improvements in teaching still needs to be conducted.

#### **Abstract - Conclusions**

Conclusion: The project is still ongoing, conclusion will be published.

### IPECP at the centre of the future quality and safety policy agenda - Why and how?

Prof John Jenkins, Chair, ASPIRE Curriculum Development Panel, AMEE

Dr Marie-Andree Girard, Clinical adjunct professor, Anesthesiologist, Clinique AGM

Prof Barbara Maxwell, Associate Dean & Director, IPE Center, Indiana University

Graham McMahon, CEO and President, Accreditation Council for Continuing Medical Education and Professor of Medicine and Medical Education, Northwestern University Feinberg, Chicago

Ruby Grymonpre, Senior Scholar, College of Pharmacy, University of Manitoba

#### **Abstract - Objectives**

Effective interprofessional education and collaborative practice (IPECP) are vital for consistent delivery of safe, high-quality health and social care. Fragmentation and inconsistencies of approach of regulators and accreditors around the globe has contributed to difficulty in moving IPECP to the core of curricula and practice between the professions. Collaborative and consistent regulatory standards and support across the professions are needed to ensure IPECP thrives. This is strongly supported by the Interprofessional. Global community of practice and the World Health Organisation.

The following extracts from the Interprofessional Global Winterthur-Doha Declaration (November 2023) highlight this:

Article 2: We will advance efforts within educational, health and social care systems to develop and deliver interprofessional education for all health and social care learners by:

- Working with accrediting/regulatory agencies to anchor collaborative competencies/capabilities within educational program standards
- Advocating for long-term investment in faculty training and development to facilitate the design and delivery of evidence-based interprofessional education and collaborative practice.

Article 3: We will advocate for policies that transform the health and social care delivery environment to support interprofessional education and collaborative practice, including:

- Investment in life-long learning in IPECP for the current workforce
- Adoption of personnel policies that support collaborative practice and team-based care models
- · Provision of support to develop and sustain care delivery models necessary for effective interprofessional collaborative practice
- The delivery of person-centered collaborative care and facilitation of collaborative community partnerships to ensure services meet the needs of people and populations.

#### **Abstract - Method**

Achievement of these objectives requires a new level of common interest, understanding, prioritisation and collaboration across these traditional divides of the healthcare professional continuum. Experience and enforced change during the pandemic have demonstrated that change is possible in concepts associated with scope of practice, entrustment, task sharing/allocation and credentialling of professional activities.

#### **Abstract - Results**

The workshop/symposium will advance this priority by bringing together a global community. Through active learning, collaboration and shared dialogue, it will propose initial steps to build consensus. Using their own experience and the experiences of the facilitators, participants will develop an action plan which will:

Highlight relevant existing international evidence and experience

Identify effective ways to engage with regulators/accreditors of health and social care professions, for the benefit of patients, professionals and healthcare systems.

### **Abstract - Conclusions**

The INHWE community is well placed to work in collaboration with other national and international bodies to move IPECP from the periphery to the centre of the quality and safety policy agenda.

# Building a new health system. Lessons learned on cross-domain collaboration from three different communities in the Netherlands

Dr Geert Rutten, Senior researcher, HAN University of Applied Science Mrs Saskia Sleijster, Researcher, HAN University of Applied Science Ms Ellen van Wijk, Researcher, HAN University of Applied Science Dr Dorien Oostra, Researcher, HAN University of Applied Science Janine Roenhorst, Researcher, HAN University of Applied Science Dr Miranda Laurant, Professor, HAN University of Applied Science

#### **Short Paper**

#### Introduction

Primary care in the Netherlands faces major challenges. Health problems are becoming more complex and care is preferably provided in one's own environment. Moreover, there is an increasing shortage of workforce. Research shows that a substantial part of what people need to feel healthy is outside of the medical system. Application of the concept of Positive Health shows that non-medical care, provided by formal or informal care givers, is sometimes the better option. The aim is for people to be self-reliant, if required in collaboration with informal caregivers or applicable citizen initiatives in their community. We call it collaborative self-reliance. These challenges require reorganization towards a health system that puts health promotion at the centre and in which citizens, health- and welfare professionals and policy makers collaborate. However, the development of such collaboration is context specific and challenging and requires a learning attitude of all partners.

#### Aim and Methods

Through participative action research we aimed to identify success factors and barriers for the development of cross-domain collaborations in care and support networks, including healthcare and welfare professionals and citizens. Three different communities in the south-east part of the Netherlands were included, a small rural village, a medium sized village and a multicultural city district. Researchers, supported by health care students, joined the three communities to closely follow the developments and provide support from September 2021 to November 2022. Data were collected through document analysis, observation and interviews. Our approach was informed by community development theory. Interviews were thematically analysed using the qualitative analysis software Atlas.ti.

#### Results

We observed several important points of attention on various socio-ecological levels. On the individual, organizational and community level a sense of urgency or relative advantage is required to start the collaboration. To involve citizens, a sense of community is a prerequisite. Successful collaboration starts with understanding each other's language, which in turn supports equal partnership and reciprocity. Because networks are dynamic, important skills are adaptive leadership, being reflective, flexible and creative. For sustainable collaboration, networks should formulate a mission and vision, but also concrete objectives. Networks also need to make agreements about their collaboration. However, because the energy is in the action, the group must avoid becoming a discussion group only without taking concrete action to achieve its objectives. Nevertheless, regular meetings are necessary for continuation towards the objectives of the network. In general, successful networks are not discouraged by not achieving a goal, they are resilient, persevere and learn from their positive and negative experiences. Courage and patience are important competencies. On organizational, community and policy level it is important to involve suitable stakeholders to reach your goals. For the change process, next to a driving force, a liaison is important to facilitate cross domain collaboration. Knowledge and skills in change management improve the efficiency of the process. Healthcare organizations and policy makers also must inform society in an understandable way about the challenges healthcare faces and what is expected of residents. Policymakers also need to facilitate knowledge sharing between networks, inclusiveness of networks and provide space for new solutions that break the boundaries of the current healthcare system.

#### Conclusion

The development of care- and support-networks is a complex and lengthy process in which various barriers on all socio-ecological levels need to be overcome. It requires adequate leadership, commitment and perseverance of all participants and a suitable skill-mix.

A driving force and liaison are important to keep the process going. Making sound collaboration agreements is valuable for sustainable collaboration. Policy makers must facilitate the change process by the provision of space to experiment with new solutions that change the health system.

Implications

To develop a new healthcare system based on cross-domain collaboration involving professionals and citizens, participants from all socio-ecological levels must be open to learning together. In order for everyone to benefit from this collaboration, it must be equal, reciprocal and inclusive. Providing the new educated health workforce the opportunity for cross-domain education, preferably including citizen participation, will help them to develop the required collaboration skills and competencies to play a facilitating role in this process.

# Academics' Views of Opportunities for Collaborative Learning on Practice Placements. A qualitative study informed by Social Network Analysis

Dr Carol Dicken, Associate Professor (Retired), Kingston University

#### **Abstract - Objectives**

What opportunities are there for working and learning with other professions on placements?

How do formal and informal learning opportunities on placement develop students' learning for integrated working?.

#### **Abstract - Method**

This was the second phase in a Mixed Methods doctoral study. Nineteen academic staff involved in organizing or supporting practice education from 13 health, social care and education pre-registration courses in one Faculty in an English university were interviewed between October 2020 and May 2021 using a qualitative, semi-structured process via online videoconferencing. Thematic analysis (Braun & Clarke 2022) of the data was informed by existing literature and the study's overall Social Network Approach (Kadushin 2012).

#### **Abstract - Results**

5 themes were identified.

- 1. Academic awareness of students' interaction with others. Students tended to lack contact with students from other disciplines, and from other branches of their own discipline, during placement. Where students did meet this was mainly in passing and not sustained or planned contact although allied health students were more likely to have planned joint activities if in the same team. Academic staff were more positive about opportunities for interaction with people in other work roles both within and outside of their placement setting. Although some academics talked about their professions being 'insular' and contact with others being limited, every profession identified that students had some contact with people in other work roles, including groups traditionally not included in interprofessional learning. Location is a key factor with greater opportunities expected in hospitals compared with community settings.
- 2. Organised, naturally occurring and informal interaction opportunities. Formal activities are those planned and organised for, or by students. Academics frequently initially associated these with organised Interprofessional Learning not expected to be organised by placement staff. Academics were also aware of the potential for placements as a venue for learning about collaborative working through organised opportunities for students to meet with, or observe, people in other work roles, often as part of induction.

Naturally occurring opportunities are interactions with others as a result of students' involvement in or observation of work tasks. It was felt that the learning which resulted from these interactions was variable and frequently dependent on students or their practice supervisors perceiving and prioritising the potential for learning.

Some blurring was apparent between naturally occurring and the 'informal' opportunities arising from contact not directly related to work tasks. These occur in unplanned, often social spaces (e.g. around a ward's nursing bay or in a lunch or staff room). The informal opportunities were identified as important for students to ask 'silly questions' but what might be overheard or shared may not reflect good collaborative practice.

- 3. Learning their place in the profession, network or hierarchy. A benefit of learning about others was identified as recognition of one's own professional role, responsibilities and skills. Learning with whom, and how to interact in navigating professional tasks and how the profession is perceived positively and negatively by others. Students need an understanding of not just what other people do, but what informs and constrains their actions. Another finding within this theme was the importance of collaborative working with people in work roles not traditionally included in formal IPL. Hierarchies, power dynamics and how observing their own or other professions being treated poorly can also impact students' perceptions of other professionals.
- 4. Responsibilities and support for learning. Students, PEs/supervisors and academic staff's responsibilities for student learning about collaborative working with others were noted. Students were expected to be increasingly pro-active and able to initiate contact with others as they progress. Differences in confidence and the impact of structural discrimination can result in opportunities not being accessed in an equitable way, however. The PE/supervisor role is key in facilitating contact, helping the student understand the context and relevant professional networks and being a role model for good collaborative practice. Access to learning opportunities depend on PE/supervisor's understanding of the importance of collaborative practice and whether IPL is viewed as something they have a responsibility to facilitate. Academic staff acknowledged responsibilities to prepare students for collaborative practice through lectures,

workshops or simulations. In teaching about other professions' roles they noted they may be conveying stereotypes or their own prejudices. The need to be attentive to students' learning about other professions within practice environments to help students process their own learning and recognise positive and negative collaborative practices was raised.

5. Processing learning through reflection and assessment. Contact is not enough. Without clear learning objectives and/or opportunities to reflect on their experiences, through supervision discussions or in writing, students may remain passive, surface learners without critically analysing factors promoting good collaborative working. Practice assessment structures were often unclear about assessing students' interprofessional collaborative working and resulted in academic uncertainty. Courses with explicit requirements for facilitating and recording reflections about contact with other professions provided permission for students to approach people in other work roles and for PEs/supervisors to facilitate this learning.

#### **Abstract - Conclusions**

Student learning about other professions and collaborative practice develops from a range of available contact opportunities. These include formal planned interprofessional working and learning with other students or staff; naturally occurring observations of people interacting with and talking about other professions; and informal social interactions. Students do not always experience and learn 'best practice'. Academics and educators in practice settings need awareness of students' learning about other professions and collaborative working practices in order to highlight and promote good practice and encourage the recognition and challenge of poor practice.

# Interprofessional learning in a Student-Run Dental Clinic: a challenge for dental hygiene and dentistry programs

Mrs Maria Kersbergen, PhD candidate, senior lecturer, HAN University of Applied sciences

Ms Elske Hissink, drs. educational scientist, Radboud University Medical Center

Prof Nico Creugers, Em. Prof, Radboud University Medical Center

Dr Miranda Laurant, Professor, HAN University of Applied Science

Em. Prof C.R.M.G.(Lia) Fluit, Radboud University Medical Center

Wietske Kuijer-Siebelink, Prof of Applied Sciences, HAN University of Applied Sciences and Radboud University Medical Center

#### **Abstract - Objectives**

Developments in oral healthcare require the adaptation of training programmes to equip students with skills essential for professional practice in both profession-specific competences and interprofessional collaborative competences. To understand and further develop collaborative learning and working within a Student-Run Dental Clinic (SRDC), research is needed on dental hygiene and dental students' behaviour and interactions and what mechanisms are involved. In this research, Cultural Historical Activity Theory (CHAT) is used as a conceptual model. Within CHAT, learning and practice are inherently linked, making it an eminently suitable theory for studying workplace learning in the interprofessional setting of the SRDC. To our knowledge, an interprofessional learning environment in oral healthcare has not been studied before through the theoretical lens of CHAT.

The purpose of this study is to gain insight into students' behaviour and interactions from two activity systems (the dental hygiene and dentistry programs) and what mechanisms contribute interprofessional learning in the SRDC.

#### **Abstract - Method**

The study employs a focused ethnography using field observations and in-depth interviews, well-suited for investigating specific behavioural phenomena in complex interaction environments. Conducted in the SRDC, five out of 18 clinics were purposively sampled. Students within these clinics were approached for observation, particularly when collaborating with the other discipline in patient care. Participants include third- and fourth-year bachelor dental hygiene students and first- to third-year master dentistry students who were actively engaged in the SRDC. CHAT will be employed to understand activity systems in dental hygiene and dentistry programs. Focused on promoting effective interprofessional collaboration in patient care, the planned analysis explores how students use signs and instruments, such as communication tools and patient records. Also examines social mediators, including rules, program requirements, legal regulations, task distribution, and the student-supervisor community are examined, providing insights into the mechanisms shaping interprofessional collaboration.

### **Abstract - Results**

In total 35,91 hours of observations were analysed (19 dental hygiene students, 24 dentistry students) and 28 interviews (13 dental hygiene students, 15 dentistry students) were conducted. We applied an iterative data analysis during the observations and interviews to ensure the richness of the data and to reach data saturation. To unravel the quantity of data, we started by segmenting the data through coding. The interview transcripts and fieldnotes, were coded in Atlas.ti (version 23.3.4). First a template with thematic codes derived from the research question, topic list observations, and the interview guide was used. The first (number) interviews were coded and discussed by two researchers. During coding, text fragments that were relevant were added via open coding. Codes were compared to see if they were similar and were then merged into (new) themes or categories. During the coding process we regularly discuss our findings with the research team. The analysis method involves various ways of interpreting the data in the context of the research question and the conceptual model (CHAT).

Currently, data is analysed and will be finished in March 2024.

#### **Abstract - Conclusions**

Preliminary findings provide insights into student behaviours and interactions in the interprofessional learning environment, emphasizing the value of CHAT as an analytical framework. The presentation aims to connect theory and practice, offering implications for enhancing interprofessional learning and collaboration in oral healthcare.

# An evaluation of inter-professional prehospital critical care simulation training for healthcare students in higher education

Miss Suzie Boot, Lecturer, University of Plymouth - Paramedic Science Lecturing Team Mr Ruari Cassidy, Lecturer in Clinical Intercalation, University of Plymouth Dr Pamela Rae, Research Fellow, University of Plymouth

#### **Abstract - Objectives**

#### Background:

The importance of inter-professional collaboration is vital across the entire spectrum of healthcare. Communication and teamwork combined with understanding and respect for the knowledge and skills of other healthcare disciplines involved in a patient's care will ensure a high quality, comprehensive patient care experience. Within prehospital practice, the importance of multi-disciplinary teamwork is widely understood and frequently utilised in the care of critically ill and injured patients. However, within higher education, focus is predominantly unidisciplinary in order to prepare students for professional registration and their role as a newly qualified clinician, meaning the importance of inter-professional working, whilst extensively discussed in theory, is often not experienced until post-qualification when the student enters the profession. By introducing simulation-based inter-professional learning opportunities into the higher education environment, students will be provided with experience and practice of working with other disciplines in a safe, simulated environment where no patients are put at risk if the teamwork or communication breaks down. The lessons learned in these experiences can then be improved upon and practiced prior to qualification, subsequently improving overall patient care provided by these students, post-qualification.

#### Aims:

- 1) To understand healthcare student's perceptions of inter-professional practical-based learning in higher education.
- 2) To evaluate the changes in student views of inter-disciplinary simulation-based training following participation in a simulation.

## Abstract - Method

Looking at an interprofessional group learners in higher education undertaking a study day using a simulation of patient journeys from pre-hospital to Intensive care. The study uses a mixed methodology of quantitative data collection via pre and post study questionnaires and qualitative data collection through semi structured interview.

#### **Abstract - Results**

Anticipated Results: The simulation will be taking place on 24th and 25th April 2024. Data collected will be used to evaluate learners' perceptions and experiences of interdisciplinary study and will be used to inform the planning of future IPL content and delivery.

#### **Abstract - Conclusions**

It is hypothesised that the learner's views on inter-professional simulation-based learning and understanding of the importance of effective multi-disciplinary working will have improved following the simulation experience. It is anticipated that this will provide learners with valuable experience of interprofessional collaborative working that they can then take forward into their professional careers, ultimately improving overall patient care.

# Continuous professional development of health professionals guided by specialist core competencies: an e-Delphi study

Dr Nicola Pagnucci, Researcher, University of Pisa

Dr Luciano Lippi, Executives of the local administration, Regione Toscana

Dr Gabriele Marconcini, Personnel director, Azienda Ospedaliero Universitaria Careggi

Riccardo Romiti, Expert in pedagogical processes, Regione Toscana

#### **Abstract - Objectives**

Competency-based continuing education aims to improve the skills and knowledge of healthcare professionals based on their specialization. It enables the development of specific training programs, tools, and evaluation methods. Competency mapping is crucial for identifying necessary skills, developing training programs, and improving employee performance. The study aims to identify the core competencies of professionals in the Health Service of the Tuscany Region to enhance them and guide their future continuing education and personnel management.

#### **Abstract - Method**

A cross-sectional study using the e-Delphi method was carried out in the Emergency Department, Oncology Day Hospital, and General Surgery Operating Room of all Tuscany Region Health Service services. The study involved the experts in every professional role in these clinical contexts.

We proposed a list of skills for different professional roles, obtained with a review of regulations and literature, and asked experts to evaluate their inclusion in the core competence.

#### **Abstract - Results**

Of the experts contacted (331), 80% responded to the questionnaire. Core competencies were developed for all professional roles involved in the study, guided by CanMeds taxonomies for the medical profession and EFN Competency Framework for other healthcare professions. Most of the skills in the questionnaires proposed to experts have been included in core competencies. Each core competence includes communication and collaborative skills. Extra skills suggested by the experts of each professional role involved in the study have been included in every core competence.

#### **Abstract - Conclusions**

The Commission for Continuing Professional Development in the Tuscany Region planned training activities for the years 2024-2025, taking into account different core competencies of professionals studied. This approach enables training for specialized professional profiles and an efficient use of resources. Effective communication and collaboration skills are pivotal in developing any health profession and delivering high-quality care.

# The Plymouth Integrative Health and Social Care Education Centre: promoting interprofessional education and research across a large faculty of health

Dr Pamela Rae, Research Fellow, University of Plymouth

Dr Phil Gee, Director of the Plymouth Integrative Health & Social Care Education Centre (PIHC), University of Plymouth

#### **Short Paper**

Aim of our presentation

To describe the development of the 'Plymouth Integrative Health and social care education Centre' (PIHC), a staff, student, and community collaboration to promote and research interprofessional education (IPE) across a large faculty of health.

Background

Interprofessional education (IPE) has been positioned as key to mitigating the global healthcare workforce crisis (WHO, 2010). However, a recent global situational report (Khalili et al., 2022) found only half of institutions providing healthcare programmes included IPE. Commonly cited reasons for a lack of IPE were related to organisational challenges. Furthermore, many of the institutions which did provide IPE, did not participate in researching the quality and impact of IPE (Khalili et al., 2022). Given the widely held view that IPE will ultimately lead to improvement in levels of patient safety (Reeves et al., 2016; Traynor et al., 2016) and improve staff retention rates (Baik & Zierler, 2019; James-Scotter et al., 2019), there is clearly a pressing need to overcome obstacles to impactful interprofessional education.

Based in the southwest peninsula of England, the University of Plymouth is home to a large and diverse faculty of health. The faculty comprises six schools and delivers 21 undergraduate core programmes (with numerous specialisms within) to approximately 11,500 students. These programmes include adult, child, and mental health nursing, midwifery, medicine, diagnostic radiography, paramedicine, dentistry, social work, podiatry, optometry, dietetics, physiotherapy, occupational therapy, psychology, clinical physiology, and biomedical science.

Launched in September 2021, the Plymouth Integrative Health and social care education Centre (PIHC) is a collaboration of staff, students, and local community experts. Its purpose is to take advantage of our size and scope to develop, nurture, and research interprofessional health and social care education across our faculty. Not surprisingly, PIHC has faced many challenges in doing this on such a large and diverse scale, but nevertheless has brought about meaningful change in the amount and quality of IPE experienced by our students and is carrying out an ambitious programme of research that includes work on the psychological factors underpinning effective IPE.

Method: We describe our development in terms of 'structure, process and outcome' (See for example, Ayanian & Markel, 2016; Donabedian, 2005; Underwood et al., 2023)

Description of PIHC's development:

Structure. We describe how PIHC formed and developed, in terms of why, who, and where. For example, overseen by the executive dean, our centre includes a core team of strategically placed staff and students, alongside a wider team of internal members and community partners.

Process. We describe the philosophical underpinning of PIHC's work, to promote, inspire, create, and enable quality IPE and research through the following activities:

Engagement. Establishing communication and connection across staff, students, partners, and community.

Mapping and supporting existing IPE sessions and research. Mapping current interprofessional learning initiatives allows us to identify opportunities for further expansion and to provide administrative, teaching and research support to make these more sustainable and effective. We have many varied examples to share.

Addressing challenges. How we dealt with challenges in promoting IPE. These included physical and organisational structures, communication, and engagement.

Creating new IPE sessions and research. We share examples of PIHC-supported innovative IPE and research.

Developing a teaching framework. A spiralling, chronological, and time-flexible structure which works as a guide for staff and to give context for student aspirations towards interprofessional leadership roles.

Developing a research framework. From snapshot evaluation studies to longitudinal projects. Identifying indicators of impact and feasibility of collecting data, exploring whether IPE should be mandatory. We also have a focus on investigating psychological mechanisms underlying effective interprofessional learning.

#### Outcome

An overall positive evaluation from stakeholders, with useful observations for continuing to increase quality and extend quantity.

Thematic analysis of interviews with PIHC stakeholders.

Evaluation of quantitative data from students attending a variety of IPE sessions.

#### Conclusion:

The Plymouth Integrative Health and social care education Centre is laying foundations for continued IPE growth and improvement. This is enabled by a core team who have administrative and organisational support and who are embedded in all schools across the faculty as well as in central university educational support services.

An important factor in our success is support and resource allocation from senior faculty and university managers. We also work under a steering group that includes directors of education in each of our schools and with direction from our experts by experience and student IPE ambassadors.

However, while students who engage with IPE are overwhelmingly positive about it, getting students to attend remains challenging. We therefore continue to explore what is in our control locally to make a difference to attendance. For example, our IPE student ambassadors are beginning to develop social media content around the types of IPE opportunities available across our faculty.

We will share our outline research plans for longitudinal evaluation of the impact of our IPE. This is being developed in partnership with regional health and social care providers. That many of our students stay within our area throughout their careers presents an opportunity to track the value of IPE more easily. We will also ascertain what registered clinicians expect of newly registered staff who have experienced good quality IPE, and we intend to carry out a feasibility study on key indicators of IPE impact on patient safety, staff wellbeing and on retention rates, thus linking to the case made for IPE in the Framework for Action on Interprofessional Education and Collaborative Practice (WHO, 2010) that was referred to at the start of this abstract.

## Sustainability of interprofessional team meetings for vulnerable elderly people living at home

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#### **Abstract - Objectives**

The aim of this study is to gain insights into the 'foundation' of sustainability of interprofessional team meetings (ITM) between general practitioners, nurses and paramedics to strengthen the perceived health of vulnerable older adults living at home and improve work pleasure.

#### **Abstract - Method**

This study has a participatory action research design. Participants are patients, general practioners, practice nurses and public health nurses, and paramedics such as physical therapists, occupational therapists.

The project consists of five phases. The first phase contained data of the self-reported health of older adults by performing semi-structured interviews (n=42) and measuring work pleasure of professionals through the Team Climate Inventory. Work pleasure is measured among all involved professionals of seven ITMs (n=50). The second phase data were collected on the functioning of the ITMs (observations, n=7), facilitators and barriers and sustainability needs. This data is used in the third phase to prioritize individual sustainability needs per ITMs.

Currently, in the fourth phase, during one-year tailored strategies will be developed, implemented and monitored by co-teams. The last phase includes the follow-up measures which are done in the first phase. In addition, the developed strategies for sustainability are evaluated by focus group interviews.

#### **Abstract - Results**

In general, older adults expressed the importance of maintaining social and community participation and gratitude that care can take place in their homes. In the Team Climate Inventory, the ITMs achieved an average score of 157.7 out of a total score of 220.

During ITM observations quite some differences were observed between team members, processes and content of the ITMs. In three ITMs only the general practitioners, practice nurses and nurses participated in the ITM. Only one ITM had participation of paramedics. Patient participation was not provided in any of the observed ITMs.

Barriers and facilitators were: not setting up an agenda, missing a shared IT-system to report the outcomes of the ITMs and a standardized method of discussing the care of the patient. Frequent changes of team members lead to inconstant collaboration and made it difficult to standardize the inclusion of paramedics and other relevant professionals into the ITMs.

Sustainability issues prioritized across ITMs were: including relevant professionals into the ITM, such as paramedics, specialists in geriatric medicine, discussing only vulnerable patients with specific indications and setting up more structure during the ITM, such as chairmanship and meeting minutes.

#### **Abstract - Conclusions**

Multiple challenges of sustainability of ITMs were pointed out at different levels, including the performance of collaboration between the professionals, organization level, policy level. These preliminary results show the diversity of ITMs in primary care. This proves that one-size-fits-all approaches will not reach the goal of sustainable ITMs.

# Evaluating the Role of an Integrated Research Curriculum in Fostering Lifelong Research Commitments in Medical Graduates: Shaping Future Clinician-Scientists

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## **Abstract - Objectives**

The integration of research activities into undergraduate medical education is being increasingly recognized as a crucial element in cultivating a sustained interest in research among medical graduates. However, the implementation of an embedded experiential research learning curriculum remains uncommon. The Bachelor of Medicine, Bachelor of Surgery (MBSS) curriculum at the Mohammed Bin Rashid University of Medicine and Health Sciences (MBRU) incorporates a longitudinal undergraduate compulsory research module with specific training on research methodologies. This paradigm shift in educational strategies reflects the growing recognition that early exposure to research not only enriches the learning experience but also plays a pivotal role in shaping the future of medical practice and innovation. However, there is a gap in the literature when it comes to rigorously evaluating the long-term impact of engaging medical students in research during the formative stages of their training. This study aims to explore how early immersion in research methodology influences medical students' future research participation and inclination, providing valuable insights into the effectiveness of research integration in medical curricula.

#### Abstract - Method

The participants in our study were MBBS students at MBRU. The first batch completed the research modules in 2018 while the last batch in 2023. This study was part of a 3-phased longitudinal project. The first phase led to the development of the evidence-based 8-A Model framework where students begin to express appreciation once they start doing research. During its second phase we captured students' attitudes and perception regarding research. Students' overall perception of research was evaluated through a 7-point Likert scale online questionnaire, which was distributed to all students who had completed the research module course. This survey explored five distinct categories 1) The applicability of research for professional development; 2) Factors hindering research resilience; 3) Factors fostering a positive attitude towards research; 4) The academic and professional relevance of conducting research; and 5) Challenges related to research dissemination. The survey items underwent validation through exploratory factor analysis. During the third and last phase, we assessed the students' research output and productivity. We developed a comprehensive database using Microsoft Excel spreadsheet to compile publication data generated by the MBBS students at the College of Medicine at MBRU. The database underwent regular updates and accuracy checks by the study's investigators. We included all publications, pre-prints, and published abstracts produced between January 2017 and December 2023 by students who had completed the integrated research module course. These studies were identified through the MBRU registry of publications, PubMed searches, and tracing of studies via the graduates' ORCID IDs. Twenty-six variables were analyzed, encompassing data on graduation information, study design, authorship, journal indexing, ranking information, and citations. A multifaceted approach was used to provide a holistic view of student research engagement and output, highlighting the diversity and range of student publications.

## **Abstract - Results**

106 students responded to the questionnaire, of which 72 (70%) were females and 34 (32%) males. The mean age of the respondents was 23 (1.8) years. The population comprised 38 (36%) Emirati and 68 (64%) expatriates. As 88.5% of the UAE is expat population our data indicated that the gender, age, and nationality distribution of the respondents was representative of MBRU's MBBS population. The suitability of the survey data for the sample size was confirmed with an adequacy value of 0.853, as indicated by the Kaiser-Meyer-Olkin (KMO) test. Additionally, the number of items in the survey had a high internal reliability, with a Cronbach's alpha coefficient of

80.1%. Overall, the scores for the survey categories indicated that the framework promotes early research exposure and attests its usefulness. When it comes to whether research is applicable for professional development, most respondents rated it highly as "Agree" to "Strongly Agree". Responses to questions on factors impeding research resilience centered around the midpoint of the scale, suggesting a neutral stance with the negative aspects of the research module course. Students expressed a positive attitude towards academic and professional relevancy regarding conducting research, with an average response of 37.14. However, there's room for improvement, particularly in integrating research with other courses. The average response of 25.70 suggests a moderate level of challenge. However, variability in responses, reflected by a high standard deviation of 7.6, indicates differing perceptions of the challenges associated with research dissemination among respondents. As for the research output for our first cohort, a total of 145 papers were published over the years. The distribution of publication types revealed that cross-sectional studies constituted the largest share at 19%, followed by pre-prints at 12%, systematic reviews at 11%, and case reports at 8%. Regarding the impact factor of the published papers, we observed the following breakdown: 8% had an impact factor of less than 1, 19% fell within the range of 1 to 2, 17% between 2 to 3, 15% between 3 to 4, 21% between 4 to 5, 18% within 5 to 10, and only 2% had an impact factor exceeding 10. Analysis of journal rankings indicated that 49% of the published papers were in journals categorized as Q1, highlighting the prominence of our research contributions in high-impact journals.

#### **Abstract - Conclusions**

Early engagement in research activities is essential in cultivating a sustained interest in research among medical students. A comprehensive approach to monitoring student research contributions provides valuable insights into the effectiveness of integrating research in medical education. We aim to highlight the significance of the importance of enhancing the culture of research during the early stages of a physician's training. We strongly encourage medical curriculum developers in the Middle East and North Africa (MENA) region and beyond to invest in this learning framework.

Investigating the Journey and Outcomes of Research Experiential Learning in a Competency-based Undergraduate Medical Training Program in the United Arab Emirates

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#### **Abstract - Objectives**

The medical program at Mohammed Bin Rashid University of Medicine and Health Sciences (MBRU) sets itself apart from traditional training programs by incorporating innovative approaches and techniques for teaching research methodology in an integrated research curriculum. This research module aligns with Dubai Health-MBRU's mission of creating a positive impact on lives and shaping the future of healthcare through innovation and research. Recognizing the critical importance of evidence-based practices in guiding healthcare decisions, we have initiated a thorough evaluation of the mandatory five courses provided to our MBBS students.

This two-phased research study aims to investigate whether engaging medical students in research during their early stages of their medical education will foster a greater inclination towards and participation in research activities throughout their medical career.

#### **Abstract - Method**

This study is conducted in two distinct phases. The first phase employed a convergent mixed methods design conducting a series of focus group sessions with our medical students from various cohorts at different stages of their research education. The purpose was to gather their perceptions regarding the integrated research curriculum, particularly emphasizing the experiential learning aspect. Concurrently, a quantitative assessment of their performance and progression, utilizing multi-repeated ANOVA and relying on a cross-sectional time-series design, was employed. The insights gathered from both qualitative and quantitative facets of this phase of the study were subsequently integrated using joint display analysis. The preliminary findings of the first phase are serving as a foundational design concept for the second phase of the study to deepen our understanding of medical students' experience with the compulsory research module. The second phase is centered around examination of secondary data encompassing students' sociodemographic information and their research productivity over time. It also includes an analysis of students' perception regarding factors contributing to their research activity. This comprehensive approach is designed to validate the outcomes of the research curriculum at MBRU.

#### **Abstract - Results**

The first phase of the research project generated four themes that correspond to sequential steps that the students go through to effectively integrate the scientific research method. These themes include: 1- Attend-Acquire, 2- Accumulate-Assimilate, 3- Apply-Appreciate, and 4-Articulate-Affect. Quantitatively, two distinct clusters of mean Grade Point Average were revealed (p<0.01). Joint display analysis enabled integrating the qualitative and quantitative findings, generating the 8A-Model. The second phase of the research project will trace the learners' research productivity over time, along with testing for potential research activity enablers and harriers

## **Abstract - Conclusions**

The evidence-driven 8A-Model highlights that as medical students' progress through the module, their appreciation of the true value of research appears to progress. Therefore, it is strongly recommended that research modules, particularly with a firm experiential learning component, become an integral part to undergraduate medical programs. Such integration is expected to enhance the research activity of future physicians, and in turn contributing to improved healthcare quality and better patient outcomes.

# Blended simulation-based interprofessional team training program: Lessons learned from focus group discussions

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#### **Abstract - Objectives**

Developing interprofessional competencies through an evidence-based program is paramount to nurturing a collaborative practice-ready workforce for patient-centered care and safety. Thus, global healthcare educators recognize the need to commence interprofessional education at the preregistration level and continue in workplace clinical settings. However, logistical challenges, such as conflicting schedules among learners from different professional groups, the availability of facilities and facilitators, and the high cost involved, impede the implementation of traditional simulation—based team training. Therefore, this study aimed to evaluate a pilot blended simulation-based interprofessional team training program for final-year nursing and medical students, with the following objectives: (1) to explore the experiences of students and facilitators with a team training program using a blended simulation approach, and (2) to identify the strengths and weaknesses of the training program for a larger scale study.

#### **Abstract - Method**

At the National University of Singapore, we designed a blended simulation-based interprofessional team training program—based on the evidence-based TeamSTEPPS (Team Strategies and Tools to Enhance Performance and Patient Safety) curriculum—to equip our final year medical and nursing students with team communication and teamwork skills that are essential in functioning as practice-ready healthcare team members upon graduation. As part of the pre-simulation learning activities, the students attended an interactive online lecture on team communication and teamwork. After that, the students were assigned into groups of 5 to 6 medical and nursing students for their blended simulation activities, i.e., 2 hours of virtual simulation followed by 2 hours of traditional simulation. In the 4-hour session, the students would take turns to role-play and observe in four simulation scenarios, where they were required to apply the principles of team structure, communication, leadership, situation monitoring, and mutual support in the delivery of patient care. A pair of medical and nursing facilitators facilitated each group. All the students (n = 39) and facilitators (n = 13) who underwent this blended simulation team training program were invited to participate in a one-time online focus group discussion. Nine focus groups, three groups each from the nursing students, medical students, and facilitators, were held with 31 students and 12 facilitators. All focus group were video recorded, and transcribed verbatim. A thematic analysis was used to analyse the data.

### **Abstract - Results**

Three themes emerged from data analysis: (1) Better understanding of each other's professional roles on the health care team; (2) Blended simulation as an instructional scaffold; and (3) Challenges identified in terms of scaling up the program. The simulation program enabled students to better understand each other's professional roles and approaches to clinical situations. The presence of medical and nursing facilitators was critical in enabling students to gain these insights. Despite some initial technical challenges, students and facilitators expressed a positive opinion about the blended simulation approach and its instructional sequence.

#### **Abstract - Conclusions**

This pilot study indicates that interprofessional team training using a blended simulation approach can potentially enhance students' learning experiences. The findings have also provided insights into improving the existing program for a more extensive scale program. These include increasing facilitation group size, increasing the capacity of the virtual simulation application to cater to larger volume of learners, and incorporating interprofessional facilitation skills in facilitators' training.

# Digital Transformation: A look at the creation & implementation of a Foundation Year Two (FY2) Digital Health rotation

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Dr William Matthews, Foundation Year 2 Doctor, Norfolk and Norwich University Hospital

Dr Edward Prosser-Snelling, Consultant Obstetrician and Gynaecologist, Chief Digital Information Officer, Norfolk and Norwich University Hospital

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#### **Abstract - Objectives**

The NHS Long Term Plan outlines the need for digital transformation to tackle pressures faced and to keep pace with the digital revolution(1). The plan emphasises how digital technology will be at the forefront of the NHS. For example, ensuring clinicians can access patient records wherever they are, using decision support and artificial intelligence (AI), investing in home-based wearable monitoring devices, upgrading technology, and accelerating the uptake of new Medtech(1). However, there is hesitancy amongst clinicians to embrace digital change(2); for example, there is resistance to utilising digital technology(2). Therefore, Norfolk and Norwich University Hospital (NNUH) offers a new, innovative, and evolving FY2 rotation that aims to address these issues.

Following medical school, Foundation Year (FY) doctors complete two years of four-monthly rotations before applying to specialty training. Traditionally, these have been patient-facing rotations. However, the Digital Health rotation steps away from this. The role enables doctors to provide clinical perspective, using valuable lived experience, to facilitate digital change within the trust. Moreover, it creates digitally minded doctors who can use the expertise gained to facilitate the NHS's long-term goals.

#### **Abstract - Method**

Two FY2 doctors have experienced this rotation at the NNUH. We will outline their experiences and reflections.

#### **Abstract - Results**

Firstly, Dr Will Matthews reflects on their experience. I chose it as one of my rotation options, despite not being able to find anybody with experience in the field before, because it seemed like such a unique rotation in an emerging field within clinical practice. I have been provided with roles in Shared Care Record, development of hazard logs, Electronic Patient Record (EPR), and Alertive. This enabled me to develop my clinical practice in distinctive ways, including clinical risk assessment, teaching opportunities, change and project management, and a further understanding of clinical safety. After mapping the foundation curriculum higher learning outcomes onto my personal objectives, one of the key gaps within digital change is that in decisions, there is very little exposure to intended users, and feedback gets made retroactively following implementation. This rotation allowed me to provide an understanding of the needs and perspectives of doctors while also providing immediate and efficient feedback on digital initiatives, which has both improved product usability and uptake while minimising delays. I have greatly benefited from this new rotation, the personal development it has provided, and the digital mindset I now have.

Secondly, Dr Rebecca Gilmore reflects on their experience. I selected the Digital Health rotation because it is a novel, unique, and dynamic field. I have been involved in and participated in various projects, which have developed my clinical safety skills and understanding of change management. These include Single Sign On project, EPR, PC usage in inpatient areas, Alertive and clinical safety projects. I have received training in change and project management, and I have found it of particular interest to learn how to overcome barriers to change. I have developed a deeper understanding of the difficulties faced when implementing digital change, as well as how they overcome them to improve the staff member and patient experience. I have instigated the utilisation of the previously untapped medium at the trust, short 'TikTok' style videos, to bring important communications to unreachable groups. Moreover, I have harnessed the lived experience of the 'junior doctor' to multiple projects. I have developed skills in quality improvement and project management, which I would have struggled to develop on more traditional rotations, which in no doubt will assist my future in the NHS and enable me to continue to facilitate change through a digitally minded lens.

## Abstract - Conclusions

This rotation provides a crucial link between the clinical and digital worlds for doctors at the beginning of their long careers. We would like to see an expansion of this role across the UK. It is a unique rotation that remains patient-focused, with all activities undertaken

contributing to improving ongoing patient care. Furthermore, the development of a curriculum that could be utilised to facilitate trust expansion of the role. The rotation provides critical development in understanding the support of clinical practice through digital change and yields unique opportunities to develop and expose doctors to the lesser-focused skills in foundation practice, including leadership, project management, and collaboration between different sectors. Exposing doctors currently practicing to the challenges of digital health and how the department aims to support clinical practice and patient outcomes serves to bridge the gap between the clinical and digital worlds, developing digitally minded clinicians that will benefit the NHS in both the short and long term.

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  Keywords

To what extent does having a student committee increase both the uptake and opinion of interprofessional education amongst students at the University of Nottingham?

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#### **Abstract - Objectives**

It is widely accepted that interprofessional education enhances healthcare professionals' team-based care, quality of care and patient outcomes. The Centre for Interprofessional Education and Learning (CIEL), established by the University of Nottingham, comprises of cross faculty educators and a student committee, which was founded in the spring of 2019, with a purpose to promote interprofessional education (IPE) through student-led events and activities. Previously, faculty recruitment and engagement with interprofessional education within university settings has been widely researched, but there is little evidence to suggest that student engagement in student-led IPE activities, or the influence of a student committee, works to increase the overall uptake of IPE resources. Furthermore, there is limited literature regarding student leadership and engagement, where few studies have previously examined the longevity and sustainability of student coordination of IPE. However, these are often based on an individual level, rather than an institutional one. Additionally, a large majority of these pre-existing studies are also not based in the UK. Most IPE studies are based in the United States, where students have less limitations regarding the nature of the IPE activities that they can facilitate independently, such as "hands on" clinical experience and interactions with patients. Therefore, this study aims to measure the impact of an IPE student committee on the attitudes and engagement of pre-registration healthcare professionals in institution-wide IPE activities. Understanding the influence of the student committee on IPE will allow us to determine the next steps in increasing the institution-wide uptake of IPE, helping to further equip healthcare students with the necessary skills to work as part of an interprofessional team in a clinical environment post-registration.

## Aims:

To identify differences in uptake of IPE available at the university of Nottingham before and after forming a student committee.

To identify student opinion on IPE and the efficacy of student led sessions, and to what extent the 33 revised IPEC core subcompetencies were addressed, and then developed for participants.

## **Abstract - Method**

Ethical approval obtained from university of Nottingham

A questionnaire was given to students from the schools of medicine, life sciences and health sciences with the addition of social work and dietetics, covering the following courses: medicine, pharmacy, adult child and mental health nursing, medical physiology and therapeutics, pharmacology, cancer sciences, dietetics, physiotherapy and sports rehabilitation; covering all health and social care disciplines studied at the University of Nottingham from all year groups. The questionnaire aimed to look at the types of IPE each student had engaged with, their general opinions on the sessions and their perspectives on how effective sessions were in developing the IPEC core competencies. From the pool of students who completed the questionnaire, three interprofessional focus groups were held to further explore and expand on answers given in the questionnaire. The answers and feedback given was then collated and a thematic analysis was completed.

#### **Abstract - Results**

Student questionnaires and following focus groups showed that IPE activities run by the student committee had built upon core competencies, and overall students both understood the importance of IPE and had positive opinions about the IPE offered at the University of Nottingham. These results will identify the motivation of students to attend additional student-led IPE sessions and commitment to attending. They will also identify students' perception of how effectively they feel they possess the IPEC core competencies, and how these have been both addressed and developed through the activities they have attended.

#### **Abstract - Conclusions**

Since establishing a student committee, the uptake of IPE has increased. Focus groups revealed that student relationships, both social and academic, were the main motivation for attending activities but also influential on opinions of IPE, and recognition of its importance in health and social care education. Further research is required on how effective promoting IPE to students is in increasing uptake in comparison to promotion to faculty members and academics as is traditionally used for the advancement of IPE.

Evaluating the educational and networking opportunities for the Centre for Interprofessional Education and Learning (CIEL) student committee at the University of Nottingham.

Mr Jordan Raymont, Student, University of Nottingham Miss Sofia Bouabdallah, Student, University of Nottingham Mr Maximilian O'Brien, Student, University of Nottingham Mrinmayi Ashok Dalal, Student; University of Nottingham Georgina Shajan, Student; University of Nottingham

Mrs Suzy Plows, Manager, Centre for Interprofessional Education and Learning, University of Nottingham

#### **Short Paper**

#### Introduction

At the University of Nottingham, interprofessional education is overseen and delivered by the Centre for Interprofessional Education and learning (CIEL). In 2019, CIEL decided to set up the CIEL student committee at the University of Nottingham. The CIEL student committee is not a student union and does not work autonomously, instead the CIEL student committee works with the CIEL faculty and operates with core objectives such as being ambassadors for IPE at the University of Nottingham, working with faculty to develop interprofessional education (IPE) content, and creating student-led IPE activities.

The purpose of this research is to explore to what extent the CIEL student committee embodies the core competencies of IPE in its members, as well as how it benefits their professional development and sense of belonging while at university. The feedback we collect will be used to share best practices to aid universities in implementing a similar student committee. Meaning, the purpose of this research is to explore whether a CIEL student committee is valuable to IPE at the University of Nottingham, and if so, then could a CIEL student committee be implemented at other universities.

To explore this, the team of researchers will evaluate the Interprofessional experiences of current and past CIEL student committee members using a questionnaire format. The questionnaire will discover if and how being on the CIEL student committee helped in developing the four interprofessional education core values addressed by the Interprofessional Education Collaborative (Interprofessional Education Collaborative, 2023).

The four values are are advocating for ethical education and mutual respect (1), understanding one's roles and responsibilities in addressing and improving health outcomes (2), communicating, one's beliefs and expertise respectively with other health professionals (3) and teambuilding, by working collaboratively with other healthcare professionals (4), (Interprofessional Education Collaborative, 2023). We will also look at any potentially negative aspects of the committee, like difficulty balancing coursework and IPE roles.

#### Background

The delivery of good interprofessional education has been linked to improved professional development by understanding different healthcare roles and responsibilities, improved teambuilding skills and improved patient care (Diggele et al, 2020). It is for these reasons that the department of health wrote the report, 'Creating and Interprofessional Workforce: An Education and Training Framework for Health and Social Care in England'. This report specified that interprofessional education is an essential part of the healthcare curriculum and IPE should be included in core healthcare curriculum (Department of Health, 2007).

Critically, an IPE meta-analysis analysed focus groups, questionnaires and case studies related to IPE and found that varied IPE lessons and objectivise set out by individual universities have made it difficult for the researchers to compile data on what form of IPE is better than others, this has made it difficult for universities to integrate IPE into a core curriculum (Anderson et al, 2015). There was also a recognition that students found IPE to be a valuable source of knowledge, yet gaining insight into how small teams deliver IPE is difficult due to a lack of high-quality literature for small team IPE (Anderson et al, 2015). Meaning that providing insight into the CIEL student committee will also provide valuable insight into small team IPE research.

Additionally, the creation of healthcare-based student committees has been linked to increasing peer engagement. For example, a medical student committee formed a research committee for students conducting orthopaedic research, this led to an increase of 460% for student engagement for first-year and second-year medical students (Schexnyder et al, 2018). This research shows that a student committee can significantly increase student engagement in a way that is beneficial to health science academia.

Meaning the feedback we have from the CIEL student committee members can help other universities to develop their own student committees, which could improve their IPE activity development and could also increase student engagement with IPE.

#### Method

The CIEL student committee were evaluated using a questionnaire that used qualitative narrative-rich open questions such as, 'how has being on the student committee impacted your professional development beyond the IPEC Core Competencies?', as well opinion questions such as 'has the CIEL student committee helped you understand your role in healthcare?.' Finally, the data will be incorporated into a presentation with an overarching narrative exploring whether the CIEL student committee aligns with contemporary IPE best practice.

#### Results

We are planning to present the results from the questionnaire and express whether the CIEL student committee has aligned with the four core values of IPE, and express whether the CIEL student committee at the University of Nottingham aligns with IPE best practice.

#### Discussion

We are planning to discuss the strengths, obstacles and limitations of having a CIEL student committee and explore what measures the CIEL student committee has taken to adhere to contemporary IPE core values. Additionally, we will discuss whether other universities could implement a CIEL student committee to create IPE student ambassadors at their university.

#### Ethical Approval

The research has obtained ethical approval from the University of Nottingham.

#### Conclusion

To summarise, the findings have explored whether a CIEL student committee can be useful for universities, provided that CIEL student committees adhere to the four IPE core values.

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# Fostering Global Collaborations in Health Profession Education: The Global Classrooms for Health Profession Education Network

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#### **Abstract - Objectives**

In response to the imperative to integrate global perspectives into health profession education (HPE) programs, we propose the establishment of the 'Global Classrooms for Health Profession Education Network' as a community of practice (CoP) group. The central goal of this initiative is to embed Global Classroom initiatives in HPE programs, fostering collaborative competencies among students and educators. The project seeks to address challenges associated with technology, institutional support, and the successful integration of virtual exchange activities within HPE programs.

The objectives of the CoP group are multi-faceted. First, it aims to enhance our understanding of the benefits and challenges of providing a global classroom experience for students. Second, the group seeks to identify suitable topics and sessions for virtual exchange activities. Third, it endeavours to develop resources and guidance for project work. Fourth, the CoP group plans to mentor staff members keen on developing projects, drawing on the experiences of the participating institutions. Lastly, the group aims to learn how to effectively evaluate initiatives and share insights through reputable journals.

### **Abstract - Method**

The methodology involves facilitating regular meetings for staff, students, and trainees to discuss and initiate projects across institutions. Leveraging existing international collaboration experiences, such as virtual field courses and transnational teaching strategies, the group will guide the development of global classroom initiatives. The active involvement of student interns in administrative tasks, literature reviews, and overall project contributions is crucial to the success of the initiative.

#### **Abstract - Results**

The anticipated outputs include a comprehensive document titled 'Guidelines for Good Practice in Global Classrooms in HPE' encompassing a checklist for planning, implementing, and evaluating global classroom projects. Additionally, the group will develop a Cultural Competency Workshop or document in collaboration with subject experts to guide staff and students engaging in global classroom activities. The creation of a directory featuring HPE topics suitable for global classroom projects, along with a list of institutions and staff interested in collaboration, is also planned. The CoP group will conduct webinars and workshops to support educators in gaining knowledge and skills for global classroom projects. A network website will be established, showcasing founding members, and resources, and facilitating collaboration across institutions. Dissemination activities will include sharing project outcomes through various platforms and professional societies, with the ultimate goal of submitting work group activities to a reputable journal.

#### **Abstract - Conclusions**

The outcomes of this initiative will form the basis for transforming students' educational experiences globally, providing them with a broader perspective of healthcare practices, cultural competencies, and skills necessary for success in a globalized world. The project had won a Global Exeter Innovation Fund of £3500 to fund the recruitment of two student interns, web design costs for the network's website, and additional incidental costs. This initiative holds significant promise in fostering collaborative competencies and global perspectives in HPE, aligning with the overarching theme of the International Congress of Health Workforce Education and Research.

Using Artificial Intelligence to build our understanding of the educational factors associated with graduate nurse retention at the end of their transition to practice

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### **Abstract - Objectives**

#### Background

Global nursing shortages are well documented and expected to rise. It is predicted by 2025, over a million expert registered nurses will retire, and as a result, these vacancies may be filled by new graduate nurses (NGNs). Despite the need for NGNs to address this shortage, the turnover rate of these nurses continues to be a global issue.

Graduate nurses experience a transition shock due to the potential mismatch between university studies and the professional demands at the healthcare organisations. Issues such as inadequate professional support and orientation, doubts about one's own capabilities, new responsibilities and difficulties in adapting to the nursing culture, have been recognised as potential barriers to a successful transition from student to nurse. This is potentially jeopardizing the retention of NGNs in the health workforce. NGNs are defined as those who have between 0-24 months of work/clinical experience. This indicates that during the transition to clinical practice NGNS need to be well-equipped with the required knowledge, cognitive abilities and skills to provide safe care for patients and to keep up with the day-to-day and busy practice environment.

Graduate nursing transition programs were developed to support and ease the transition of nursing students from education to clinical practice. These programs facilitate the crucial first year of nursing practice by optimising the graduate nurses' competency development (e.g., technical skills, effective communication, working with the healthcare team), enhancing their understanding of values, shared decision making, delivering person-centred care and supporting their lifelong learning. The aim with these programs is to offer additional support and to retain nurses in the profession. Graduate nursing programs use significant resources, it is therefore imperative to know if they are achieving what they set out to achieve and what factors within the programs best NGN to transition and hopefully stay in the healthcare sector.

### Study Aims

The aim of this project is to understand factors that support retention of graduate nurses during and at the end of their NGN transition year. Artificial intelligence is being used to enhancing engagement with the graduate nurses. The study is conducted across three large health districts in New South Wales and Queensland, Australia and is a collaboration between Directors of Nursing and researchers. Within these three districts they recruit over 1300 NGN per year, all of whom are eligible to participate in this study.

#### **Abstract - Method**

This is a mixed methods study, using AI technology (Curious Thing) to conduct interviews (mix of qualitative and qualitative data) with the NGN and focus group discussions to further explore preliminary findings (qualitative). Thematic analysis will be performed using an inductive approach. NVIVO software will be used for qualitative data analysis. Quantitative data will be analysed using SPSS software Version 29. This is the second phase of the collaborative research program. In Phase One we were able to uncover the key components of NGN programs across our three research sites.

#### Curious thing

Curious thing (CT) is a conversational AI platform which was designed to be curious, engage in question-and-answer sessions. It has the capability to generate context-relevant questions until it is satisfied, and it has uncovered sufficient insight. CT has the capability to ask open ended questions, allow participants to answer in their own words, and follow up with specific closed or clarification questions appeared to mirror the outcomes required from the calls being undertaken by humans. CT calls each participant at an agreed time,

asks a series of questions naturally, and the participant responses are understood and analysed using machine learning. It helps the research team to collect data in a more efficient way.

The focus of this presentation is on the use of AI to recruit large number of participants and manage large data sets as well as highlighting the results of the research.

#### **Abstract - Results**

In Phase One we uncovered the similarities and differences between three NGN support programs across three large health districts. Differences were found within the educational support offered, the use of reflective practice, the number of supernumerary days a graduate receives and the role of mentors and preceptors. In the Second Phase we will uncover the key factors that result in the NGN building competency in their practice, making a successful transition and ultimately the retention of NGN to ensure we have a stable workforce that can deliver high quality person-centred care. In addition, we will highlight what factors influenced successful transition of NGN and conversely which factors had a detrimental or less satisfactory effect on these nurses. We will be able to provide our healthcare organisations with evidence around these factors and support them in modifying their NGN program to increase retention in subsequent years. This will be undertaken as a subsequent phase of this collaborative research program.

We will also provide the outcomes and our recommendations of using CT as a means of engaging participants and in obtaining and managing large data sets.

#### **Abstract - Conclusions**

It is important that we understand the ways in which we can best support NGN to transition into and stay within the workplace. With increasing worldwide shortages of nurses there is an imperative to support newly qualified nurses to make the adjustment from undergraduate student to registered nurse. If we are to retain such nurses, we must ensure they are getting the support they need to; build competency, learn, develop, work within the team and flourish in the workplace.

# Changing Educational paradigms to provide multidisciplinary comprehensive person-centred care

Ms Karen Tuqiri, Director of Nursing, Prince of Wales Hospital

Ms Karlee Mueller, Clinical Nurse Consultant Comprehensive Care, Prince of Wales Hospital, South Eastern Sydney Local Health Dr Therese Riley, Nurse Manager, Clinical Practice & Development, Sydney, Sydney Eye Hospital, South Eastern Sydney Local Health Mr Chris Sargeant, Nurse Educator, Sydney, Sydney Eye Hospital, South Eastern Sydney Local Health

#### **Abstract - Objectives**

An educational mapping and gap analysis report was undertaken across two acute care hospitals identified clinician knowledge gaps for key aspects related to the assessment of risk, screening, and assessment processes for inpatients. The key principles of the Comprehensive Care Standard (Standard 5 of the Australian National Safety and Quality Health Standards) were used as the foundation for the educational intervention. A multidisciplinary educational session was developed to explore and enhance awareness of each clinician's roles and responsibilities when planning, delivering, and evaluating a comprehensive person-centred care plan for a patient.

The aim was to enable a sustained collaborative approach that shapes the future delivery of person-centred comprehensive care.

#### Abstract - Method

The one-hour interactive session integrated the six elements of the Comprehensive Care Framework (CFF) contextualised to a patient journey. The use of a patient scenario guided the discipline specific decision-making regarding the assessments, care planning, delivery, and the evaluation of care. A one-hour education session, either on-line or face to face was implemented. All members of the multi-disciplinary team are invited to attend the educational session. A co-facilitation model is used to run the sessions. The evaluation includes questionnaires and facilitators critical reflections. We proposed a list of skills for different professional roles, obtained with a review of regulations and literature, and asked experts to evaluate their inclusion in the core competence.

## Abstract - Results

After a successful pilot with 47 staff from five acute care wards the program was implemented more broadly. Success of the pilot included achievement of learning objectives, increased awareness regarding the six elements of the CCF, risk screening and assessments, improved communication and shared decision-making by the MDT and the patient. In the second phase, an additional 416 staff attend to date. In addition to the outcomes of the pilot staff voiced the value and benefit of being educated all together in one space. The overall results of the educational intervention include:

- 85% of responders agreed that the mode of delivery was a useful way to learn about comprehensive person-centred care. As this participant indicates "I like how this is an integrated care discussion with MDT approach."
- 88% of responders agreed that the activities in this workshop enabled them to better understand the six elements of comprehensive care as outlined here by a participant

"It was interactive, and getting other's perspectives during the group work was useful."

- 84% of responders agreed that they will be better able to incorporate person-centred care principles in their practice Facilitator of the session highlighted several issues, these included:
- Tailoring the case scenario to suit clinical context is beneficial to increase relevancy
- One hour session was often problematic in a COVID and post COVID environment
- MDT attendance at every session is a challenge, however beneficial when achieved

Strategies to enhance the educational experience and mitigate the issues related to attendance have been developed.

#### **Abstract - Conclusions**

Reimagining the traditional discipline specific approach to education has enabled the development of a multidisciplinary educational program focusing on comprehensive person-centred care. Participants have benefited from a greater understanding of discipline specific interventions and management of patient complexities. Collaborative multidisciplinary ways of working within health care settings can achieve comprehensive person-centred care and this education program supports this process.

# The Emerging NUM Program – Building Collaborative Competence and Enhancing and Expanding Leadership Skills

Ms Karen Tuqiri, Director of Nursing, Prince of Wales Hospital

Ms Mary Mulcahy, Nurse Educator, Person-Centred Care, Prince of Wales Hospital, South Eastern Sydney Local Health Ms Elizabeth Schlossberger, Nurse Manager Education, Prince of Wales Hospital, South Eastern Sydney Local Health

#### **Abstract - Objectives**

Effective clinical leadership is required to lead and develop sustainable high performing teams. Building collaborative competence prepares nursing leaders to work with all members of the interdisciplinary team to ensure high quality, safe, person-centred care is delivered. Nursing Unit Managers (NUMs) are front-line leaders needed to manage complex dynamic situations and create environments which support and enable staff to achieve professional, high standards of patient care. The Emerging NUM (ENUM) program aimed to develop a comprehensive skilled cohort of leaders using a person-centred multifaceted approach intended to support the development of nurses in their leadership journey. Now in its fourth year with exceptional success, all participants are engaged in leadership positions enabling sustainable succession planning to occur. This creates unlimited opportunities to further enhance their leadership skills. Desired outcomes include improved staff retention and morale, leading to enhanced patient outcomes as a result of a stable and consistent workforce.

This program is funded through the 'Louisa Hope Fund for Nurses' at the Prince of Wales Hospital Foundation. The Emerging NUM Program – Building Collaborative Competence and Enhancing and Expanding Leadership Skills.

#### **Abstract - Method**

The program commences with a three-week intensive training period that includes pre-program learning requirements; two 'face to face' workshops; shadowing both nursing and interdisciplinary health leaders in key roles across the facilities and experiential learning through acting in the NUM role with mentor support. All participants are allocated a NM/NUM mentor to support them throughout the 9-month program. The three-week intensive training period is followed by two further workshops, emotional touchpoint sessions and regular mentoring support over the nine months of the program. This equates to 17 funded study days.

This comprehensive program, now in its fourth year has been evaluated using mixed methods which include a pre and post program survey, Emotional Touchpoints at various time periods, feedback from key stakeholders following the three-week training program and feedback from participants at completion of program. In strengthening our program's evaluation processes, we continue to capture person-centred measures and program outputs in terms of the impact(s) of the program on sustaining our workforce at multiple levels of service provision.

### **Abstract - Results**

The program has reduced recruitment time and costs by having an established leadership workforce ready for when leadership positions become available (permanent or leave relief). To date, 100% of participants have recommended the program to other nurses who are seeking to extend their management skills. Key learning and skill development includes active listening, effective communication, working with the interdisciplinary team to provide better care, advocating, and developing confidence in leadership abilities as this participant shares their experience of the program "The ENUM Program has increased my capabilities as a leader and a manager. Over the year I have developed skills and strengths that I didn't realise I had." Over 90% of participants had the opportunity to act in the NUM role. As this participant highlights in discussing his experience of taking on a leadership role "the NUM, along with their leadership team, is responsible for leading that culture of collaboration and working collegially with one another. I am proud to be part of a Multidisciplinary team that has a great working relationship with one another."

The NUM mentor relationship has proven to be one of the most satisfying aspects of the program. As this participant indicates "I have now a greater awareness of how the hospital runs and with the support of my mentor I am much more confident in handling all the different management issues a NUM has to deal with". The programs greatest achievement is the preparedness and sustainability of the leadership workforce, establishing collaborative competence and creating a cohort of resolute and committed leaders who are currently shaping the future of healthcare.

## **Abstract - Conclusions**

The emerging NUM program has been successful in preparing clinical nursing staff who are considering a role in management. It has enhanced and expanded their leadership skills and knowledge, building their collaborative competence, and preparing them as they take opportunities to act in the role of the NUM.

Accelerated Transition Program into the Intensive Care Unit: An innovative education strategy to fast track Registered Nurse training with supervision and leadership support in Intensive Care

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Prof Val Wilson, Professor of Person Centered Healthcare, SWS Nursing & Midwifery Alliance, Ingham Institute of Medical Science and Prince of Wales Hospital, Randwick Sydney

Ms Karen Tuqiri, Director of Nursing, Prince of Wales Hospital

Ms Laura Richmond, Nurse Manager, Prince of Wales Hospital, South Eastern Sydney Local Health

#### **Abstract - Objectives**

There is a shortage of trained nurses in Intensive Care which has been further impacted by the pandemic. This has led to staff burnout, increased staff attrition and difficulty in recruiting qualified staff. This issue is prevalent in Australia and Internationally. Transitioning into critical areas is more difficult due to the need for specialized knowledge, and interprofessional collaborative models of care. Intensive care programs have not been consistent within Australia which is compounded by a lack of evidence as to what aspects of transition programs best support nurses. Traditional training models are a minimum of 12 months. Due to the current staffing crisis alternative models of transition needed to be considered

Taking this into account and with the current staffing demands within a metropolitan Intensive Care Unit in Sydney, a 12-week accelerated program has been designed, implemented, and evaluated. A staggered intake enabled the new staff members to be fully supported during the 12-week program which consists of 6 weeks supernumerary time and 6 weeks working directly under the supervision of an experienced registered nurse.

The aim of this study was to evaluate the impact of the accelerated transition program for nurses participating in the program, those providing supervision and leadership support as well as staffing outcomes.

#### **Abstract - Method**

This mixed-methods evaluation uses quantitative (Safety attitudes questionnaire) and qualitative (staff interviews/focus groups with transitioning nurses, preceptors, and the senior leadership team) data collection and analysis methods. In addition, data collected throughout the program such as learning outcomes, achieving competency (I-HIT Tool), reflective journaling and observations of practice are used to gauge the progress of the transitioning nurses..

#### **Abstract - Results**

20 nurses participated in the program over 6 months with all participants remaining in an Intensive Care environment. The I-HIT tool results improved by 10% at the end of the program. The accelerated transition program has been a success, participants have gained skills and knowledge, competence to practice, effective interdisciplinary teamwork and they have grown in confidence.

We will share the experiences of the transitioning nurses, preceptors and the senior leadership team. We will answer the questions 'Can nurses safely transition to Intensive Care in 12-weeks?'

## **Abstract - Conclusions**

Using an accelerated supervised approach to fast-track registered nurses transitioning into the Intensive Care Unit has been successful. The transitioning nurses were supported and gained the appropriate skills and knowledge to practice safely within the ICU environment.

# Strengthening the quality of interprofessional education learning experiences through online faculty development

Prof Fiona Bogossian, Deputy Dean - Health, University of the Sunshine Coast

Dr Stevie-Jae Hepburn, Research Fellow, University of the Sunshine Coast

Dr Natalie Dodd, Senior Lecturer - Paramedicine, University of the Sunshine Coast

Dr Rebekah Shakhovskoy, University of the Sunshine Coast

Mrs Katie Healy, University of the Sunshine Coast

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Prof Jen Williams, University of the Sunshine Coast

A/Prof Jane Taylor, University of the Sunshine Coast

Prof Fiona Pelly, University of the Sunshine Coast

#### **Abstract - Objectives**

Interprofessional education (IPE) experiences support health professions students in the development of interprofessional collaborative practice (IPCP) competencies. IPE is a common requirement of health professional program accreditation, yet faculty required to provide IPE experiences often have limited training.

This presentation describes the development, validation and user experience of a suite of four Faculty Development IPE-4-IPCP modules. The modules have been intentionally designed to support faculty to develop competencies required to design, implement, assess and evaluate IPE experiences.

#### **Abstract - Method**

The Faculty Development IPE-4-IPCP modules were developed using a constructivist approach guided by a multimodal model for online education. In a multi-methods study conducted at a health institute in Queensland, Australia expert panel (n=5) and health faculty (n=8) assessed content and face validity. User group experience was explored qualitatively via focus groups.

## Abstract - Results

Content of all four online modules was informed by a series of four scoping reviews and was judged by an expert international panel (n=5) as appropriate (CVI >0.8). After minor revisions, face validity judged by a user group (n=9) exceeded 75% agreement for literary presentation, illustrations, materials. Focus groups findings suggest that the four IPE-4-IPCP modules reinforced current faculty practices, taught new concepts, used language that was inclusive.

### **Abstract - Conclusions**

Intentionally designed online learning such as the Faculty Development IPE-4-IPCP modules may be an effective way to support faculty to develop competency in design, implementation, assessment and evaluation of IPE, thereby strengthening the quality of IPE experiences. Intentionally designed online learning such as the Faculty Development IPE-4-IPCP modules may be an effective way to support faculty to develop competency in design, implementation, assessment and evaluation of IPE, thereby strengthening the quality of IPE experiences.

# Building interprofessional collaborative practice competencies through online education

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#### **Abstract - Objectives**

Interprofessional education (IPE) is fundamental to supporting health students and staff to become collaborative, practice-ready professionals, well-positioned to engage in interprofessional collaborative practice (IPCP). Facilitating factors for IPE include the development of shared knowledge and understanding of IPE, interprofessional thinking and acting, and the promotion of mutual understanding. This presentation reports on an Introductory IPE-4-IPCP online education module for health care staff, health education faculty and health professions students which aimed to build collaborative competencies.

#### **Abstract - Method**

A multi-methods study was conducted at a health institute in Queensland, Australia study to understand the impact of the Introductory IPE-4-IPCP module on a) confidence in the ability to engage in IPE and IPCP and b) preparedness for change towards interprofessional collaborative practice. The study used focus groups and pre-post measures of self-reported confidence; attitudes towards teamwork and the interprofessional socialisation and valuing scale (King, Orchard, Khalili & Avery, 2016)..

#### **Abstract - Results**

Four themes - content, learner experience, implementation, and patients/clients emerged from the focus groups. Health care students (n=68) and faculty (n=12) reported changes pre and post module, although only students significantly increased in confidence regarding ability to engage in IPCP (p<0.001) across all self-report items; confidence in working in as part of a multidisciplinary team (Z - 4.30 p < .001) and in attitudes, beliefs and behaviours of regarding engaging in collaborative care (Z - 5.026, p < .001).

#### **Abstract - Conclusions**

The Introductory IPE-4-IPCP module resulted in learning for health care staff, health education faculty and health professions students. Online learning may provide an option to create a shared understanding and build a foundation for health professionals across the continuum of learning to engage in interprofessional collaborative practice.

# Taking the earliest opportunity: gathering students' thoughts about an interprofessional learning intervention during induction

Dr Nicola King, Lecturer in Cardiac Physiology, University of Plymouth Dr Tina Lovleen Joshi, Associate Professor, University of Plymouth Dr Pamela JL Rae, Research Fellow, University of Plymouth

#### **Abstract - Objectives**

To explore Foundation year students' perceptions of an interprofessional learning session, delivered at the very start of their studies. Background. The Faculty of Health at the University of Plymouth contains 6 Schools: Biomedical Sciences, Dentistry, Health Professions, Medicine, Nursing and Midwifery and Psychology. Students from 3 of these Schools (Biomedical Sciences, Dentistry and Medicine) come together to share teaching in 3-5 modules of a Foundation year. More specifically, this involves students from 5 diverse degree programmes comprising: BDS Dental Surgery with Integrated Foundation Year, BMBS Bachelor of Medicine, Bachelor of Surgery with Foundation, BSc Biomedical Science with Integrated Foundation Year, BSc Dental Therapy and Hygiene with Integrated Foundation Year, and BSc Diagnostic Radiography with Integrated Foundation Year engaging in shared teaching and interprofessional education (IPE). To the best of our knowledge this is the coming together of a unique blend of students with very different career aspirations.

Fox et al., (2018) have stated that "to produce capable healthcare professionals prepared to participate in interprofessional roles, teamwork training must begin early in health professional students' training." However, little is known about the impact of IPE in the very early stages of undergraduate study (Kemp and Brewer, 2023). In this research we took the earliest possible opportunity to evaluate students' prior knowledge and thoughts about IPE during induction before formal teaching started. Our aim was to investigate whether this early intervention would increase students' awareness of IPE, and to explore their readiness for interprofessional learning.

### **Abstract - Method**

Students engaged in a 1-hour IPE session. This began with a brief introduction to IPE followed by a short introduction to anti-microbial resistance (AMR). At the end of this students formed themselves into interprofessional groups to discuss how AMR could be managed through a "one health" perspective. To aid them in this they were provided with prompter questions such as discussing the role of each professional group in tackling AMR. Students were then encouraged to feedback to the whole cohort. At the end of this students were introduced to Plymouth Integrative Health and Social Care Centre and then invited to use a QR code to take part in a short survey. This survey consisted of Likert style questions and open questions. Questions examined what the students had thought about the IPE session they had just experienced, its timing, whether they wanted more IPE, what they had learnt about IPE and students from other courses. Data was analysed using descriptive methods.

This research was approved by The University of Plymouth Faculty of Health Research Ethics and Integrity Committee.

### **Abstract - Results**

Forty students participated. Over half (57.5%) had not known what 'interprofessional learning' was before the session, but all felt they knew what it was after the session. Almost all (97.5%, 39) could see the benefit of IPE. Most (97.5%, 39) respondents enjoyed the session, and found the topic interesting (95%, 38), and relevant (97.5%, 39) to their chosen course.

Most (87.5%, 35) felt it was useful to have an IPE session at the very start of their studies and only 3 (0.75%) respondents felt interprofessional learning was not an important inclusion in their studies per se.

Those who felt IPL was useful at the very start of their studies commented on how it lays the ground for future development, {it} 'helps people engage with others early on and understand different aspects of other courses, which can be helpful for personal growth', and that {it gives} 'a better understanding of the point of views from all professions'.

Respondents who felt it was not useful shared concerns around lack of subject knowledge, {you} 'Don't know enough about your course to contribute ideas effectively'.

All respondents were open to taking part in further interprofessional sessions, with 37.5% (15) responding with an outright 'yes', and 55% (22) saying it would depend on the topic.

Several commented on the value of hearing different perspectives, such as, {it is} 'Interesting to get an opinion/view of someone wanting to go into a different profession'

Respondents who indicated it would depend on the topic, clarified this by stating, {it} 'Still needs to be relevant to my course'
When asked what they learnt from the session, responses fell in to two categories: acquiring AMR subject knowledge, and learning about interprofessional collaboration. For example, respondents learnt, 'The importance of interprofessionalism for the better of the patient', 'Communication is essential', and 'how to collaborate with peers outside my curriculum'.

Finally, we asked respondents how the session influenced what they think about working with students from other courses. Students expressed appreciation of the benefits of IPE,

'helped me gain more confidence', 'got me more interested in their courses', 'interesting to see different ways they approach the same questions', 'working with other healthcare students helped me learn more', 'it made us realise the similarities and differences between courses', 'I'm very keen to work with students from different courses to benefit my earning and meet new people'.

#### **Abstract - Conclusions**

Our aim was to investigate whether an early intervention would increase students' awareness of IPE. We were also interested in newly enrolled students' readiness for IPE. Our data show that students at the very start of their studies, can quickly appreciate the meaning and value of IPE. It is worth stressing that our respondents were in their first week of Foundation study with us, yet to accrue subject knowledge however, they engaged swiftly with the interprofessional task in hand. In addition the session was positively received and most students showed interest in future IPE. Overall, we have demonstrated that it is possible to deliver IPL at the very start of studies if you carefully consider appropriate topic and activity, which takes in to account what students know, and do not know, at that early stage.

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# Technology-Assisted Interdisciplinary Learning and Simulation: Advancing Postgraduate Healthcare Education

Prof Tara Cusack, Associate Professor, University College Dublin

Mrs Siobhan Brereton, Director of Simulation and Clinical Skills and a clinical tutor at UCD School of Nursing Midwifery and Health Systems, University College Dublin

Miss Lara Gillespie, Research Assistant, University College Dublin

#### **Abstract - Objectives**

The aim of this project was to co-design technology assisted interdisciplinary learning and simulation with key stakeholders to improve sustainable clinical education. The co-design workshop was to enable an interdisciplinary group of educators and healthcare specialists develop learning objectives and specific scenarios for future student education interdisciplinary simulation modules. The objectives of the workshop were to define what is important to include and prioritise in an interprofessional simulation from all perspectives. The objective of the simulation (held in February and March) is to develop students' communication and interprofessional skills, develop collaboration and team work and overall improve quality of care to patients.

#### **Abstract - Method**

The World Cafe methodology was used for this interdisciplinary workshop, including graduate entry physiotherapists, dieticians and graduate nurses specialising in cardiology, together with patients, academics, clinicians and educational technologists, co-designed technology enhanced simulation. Multiple scenarios were developed to possibly be used in the future Pilot and Roll Out simulation with students from multiple disciplines in healthcare education. Participants participated in a feedback survey after the workshop to discuss their experience of the day.

#### **Abstract - Results**

Three key themes emerged following the analysis of the Co-design Workshop: (1)The Importance of Communication, (2) Straightforward information sharing, and (3) Patient Centred approach.

Patients' desire to be heard and practitioners' intent to enhance their communication skills in clinical settings were evident. Participants discussed in depth the important of the simulation pre-briefing. Some suggestions to make the pre-briefing as helpful as possible for the students were: to give examples of cast studies, to provide information and education in simple formats such as recap videos and definition glossaries; short quizzes were also suggested to help with students' pre learning. How to best advocate for the patient was a topic which came up repeatedly in multiple table discussion, and how to develop these clinical skills in students while maintaining the highest level of respect and dignity in the environment.

Participants rated the experience 9-10/10 in the post workshop feedback form, many mentioning the dynamic was very engaging and the chair set up allowed for everyone in each group to be included in the conversations. One participant mentioned how valuable respect in this environment was: "I think the combination of people around each table worked really well. I think the respect that everybody had for everybody else regardless of their situation was wonderful. I feel that the aim was achieved, which is a wonderful reward in itself". Other participants suggested maybe more time at each table to go deeper into the topics such as the patient perspective.

#### **Abstract - Conclusions**

The themes framed the development of the pre learning and the final scenarios allowing each team member to apply and share their skills and knowledge. These themes align with current literature about interprofessional communication, and especially highlight the patient perspective of how important clear communication with the patient aswell as with each team member is. The interdisciplinary workshop provided valuable learnings to educators, developing their knowledge on other disciplines and how to best prepare their students for an interdisciplinary simulation. These discussions were important to develop well-rounded scenarios to encourage students to communicate and collaborate in an effective and realistic way, and to expose them in a safe environment to learn and retest their clinical and decision making skill sin an interdisciplinary context.

# Creating Interprofessional Field Identities: A Short Paper

Dr Melissa Owens, Director of Nurse Education, University of York Miss Molly Crosland, Clinical Teaching Fellow, University of York

#### **Short Paper**

The aim of this presentation is to describe the processes by which a university, in the North of England, set out to create an interprofessional field identity for pre-registration (licence) students.

The University of York is a Russell-Group University and offers health and social care professional programmes in nursing, midwifery, medicine and social work. The presenters of those writing this abstract, however, are both nurses and the focus of this presentation, therefore, explores the aim through a nursing lens.

Unlike most countries, in the United Kingdom (UK) nursing programmes have a specific focus with registration being in one of four fields: adult, child, mental health and learning disability nursing with the majority of students studying towards the adult field - which is most commonly considered as the 'general' nurse educational programme offered elsewhere in the world (Clarke 2017).

In 1972 The Briggs Report (HMSO 1972) proposed a significant change to the way in which pre-registration nursing was delivered in the UK, with a move from students from different fields studying separately within their own 'Schools of Nursing' attached to work settings, to that of an 18 month common foundation programme (CFP), shared by all fields, followed by 18 months specialising in a particular field. This model became cemented in UK nursing education in the early 1990s with the introduction of 'Project 2000', which further saw a move of educational programmes into colleges or university settings. Criticisms of this approach later saw the CFP reduced to just 12 months before being abolished altogether (Ousey 2011; RCN 2007). Today, student nurses in the UK are all required to meet the same, professional standards which are then applied to their own field of nursing (NMC 2018). This move, however, can leave students from small (and particularly the mental health) fields of nursing, feeling marginalised and lacking in a field identity (Coleman 2018).

Alongside this movement in nurse education in the UK has been a global move to recognise the importance of interprofessional education (IPE) and collaborative practice (CP). Both are perceived to have vast benefits including better care provision for patients and communities (Khalili et al. 2021a) and improved resilience for healthcare professionals (Khalili et al. 2021b) with a call from the World Health Organisation to ensure that all pre-registration students are 'collaborative practice ready' at the point of registration (WHO 2010). Within the UK this has led Professional Regulatory Bodies, including the Nursing and Midwifery Council (NMC) to state that they will now only approve pre-registration programmes where interprofessional learning is embedded (NMC 2023).

However, despite the past decades having seen much published regarding IPE and CP initiatives, there remains a dearth of literature relating to interprofessional field identity.

In this Short Paper we describe how, at the University of York, we are working collaboratively with local Health Service Organisations (NHS Trusts) to develop a framework of interprofessional education to develop interprofessional field identities. Focusing predominantly on mental health nursing, we will describe initiatives that have been carried-out to date with medical students alongside future plans in order to achieve the goal of creating an interprofessional field identity.

Throughout the infancy of this work, we have worked to establish links with relevant practice partners, and key stakeholders within these environments. The ability to do joint working between the University and the local NHS mental health Trust was facilitated by one of the authors who is a Clinical Teaching Fellow for nursing allowing established networks to be explored to ensure we were involving those that would be best suited to establishing interprofessional education.

It was important for us to identify whether there were any existing elements of interprofessional education that we could develop further, or any current provisions that were well established that could be adapted to incorporate a more interprofessional approach and we will discuss this approach further through our presentation.

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## Rural and flexible nursing education; Motivation, experiences and career expectations

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Dr Silje Stangeland Lie, Associate professor / Head of Department, VID Specialized University

Prof Kari Røykenes, Professor of Nursing, Doctor of Education, VID Specialized University

## **Abstract - Objectives**

Norway, like several other countries, is currently experiencing significant challenges in ensuring an adequate number of healthcare professionals. The expected demographic changes will further increase the need for health care professionals, especially within munisipal health care. Northern Norway has struggled to recruit this type of workforce for several years. Despite the high demand for nurses, nurse education programs are encountering significant challenges in recruiting students, particularly in rural and flexible study programs. There are few studies exploring students' motivation for starting rural and flexible nursing studies and their future career expectations. The aim of the study is thus to explore these areas.

#### **Abstract - Method**

The study is a sequential mixed method study, using survey and focus groups interviews. Quantitative and qualitative data are analysed separately and mixed in the discussion. Quantitative data have been analysed descriptively using SPSS. Qualitative data have been analysed by systematic text condensation.

Fifth firs-year students answered the survey in the beginning of their studies. Eight students participated in two focus group interviews eight months after they began their study.

#### **Abstract - Results**

A profession where you can help people and contribute to one's society are important internal motivational factor for starting nurse studies. The opportunity to stay in one's local district during education, as well as secure job prospects are important external motivational factors. The majority of the students envisioned a full-time career and further studies. "Desire to make a difference", "Experience of availability", "Learning environment is crucial" and "Education provides opportunities and security" are the four main themes from the focus group interviews.

## **Abstract - Conclusions**

The study shows that a rural nurse and flexible education program appeals to students who otherwise may not start higher education. Rural and flexible nurse education programs can contribute to sustainability in the regional healthcare.

## A Novel Leadership Fellowship Training Programme for Capacity Building of Pharmacists in Africa

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#### **Short Paper**

#### Background

The Commonwealth Pharmacists Association (CPA) is the leading global network of pharmacists across the Commonwealth (CW), which seeks to develop, empower, and raise the profile of the pharmacy profession and support the safe and effective use of medicines for the benefit of the general public.

The CPA and the Tropical Health & Education Trust (THET) manage the Commonwealth Partnerships for Antimicrobial Stewardship (CwPAMS), a health partnership programme funded by the UK Department for Health and Social Care's Fleming Fund. CwPAMS aims to leverage the expertise of UK health institutions and technical experts to strengthen the capacity of health institutions and workforce across the CW, particularly low and middle-income countries (LMICs), by creating bidirectional learning opportunities to address antimicrobial resistance (AMR) challenges. The Health Education England (HEE) funded the UK Chief Pharmaceutical Officer's Global Health (CPhOGH) Fellowship programme, which ran alongside CwPAMS and had cohorts between 2018 and 2021.

To extend the learning from the CwPAMS programme for African Pharmacists, the CPA has developed a first-of-its-kind leadership fellowship training programme, the Africa Leadership Fellowship-Antimicrobial Stewardship (ALF-A). The goal of ALF-A is to support pharmacists' development of knowledge, skills, and attitudes relevant to leadership in healthcare, incorporating behavioural change and quality improvement to enable them to undertake successful antimicrobial stewardship (AMS) improvement interventions within their institutions. Thus, creating a group of skilled pharmacy leaders would employ the learned skills and lead innovative projects to address health system challenges within their countries and improve patient outcomes.

Global health leadership is vital for pharmacists to enhance healthcare delivery and organisational effectiveness, promoting interdisciplinary collaboration and improving patient outcomes. Unfortunately, in LMICs, pharmacists often lack access to tailored health leadership training in resource-limited settings. Unlike other healthcare professionals, there is limited evidence of leadership training designed specifically for pharmacists in African contexts.

#### The ALF-A programme

ALF-A aims to support early to mid-career African pharmacists by broadening the CwPAMS programme's experiences and providing an opportunity to improve their knowledge, skills, and attitudes relevant to leadership and management in healthcare whilst leading an AMS improvement intervention project within their healthcare facilities. This will enable greater recognition of the pharmacist's role as part of the AMS multidisciplinary team to provide sustainable outputs while strengthening leadership.

## Programme development

In 2019, the assessment of the CPhOGH Fellowship stated that it led to the upskilling of more confident, motivated pharmacists with a passion for global health (1). Their senior peers observed a significant improvement in Fellows' perception of their confidence, teaching abilities, understanding of behaviour change, management and communication skills and overall leadership skills. This led us to explore the potential for a similar leadership fellowship program for African pharmacists.

In 2021, a need-based approach scoping study was conducted to identify the training requirements for leadership in healthcare programme for pharmacists in 8 sub-Saharan African countries (2). The results of this study and lessons from the CPhOGH Fellowship led to the development of the ALF-A programme. The content was mapped against the International Pharmacists Federation (FIP) Global Advanced Development Framework (FIP-GADF) (3), an internationally recognised validated framework, to ensure the programme supported the pharmacists' critical leadership and management competencies for professional advancement.

Four of the six FIP-GADF competency clusters were purposefully selected as focus areas of development for the ALF-A programme, including 1) Expert Professional Practice, 2) Working with Others, 3) Leadership and 4) Management. The specific competencies included collaborative competencies for effective interdisciplinary working, such as communication skills (including the ability to persuade, motivate, negotiate, empathise, provide reassurance, listen, influence, and empower), teamwork and consultation, and working across boundaries. The pharmacists working as part of the multidisciplinary CwPAMS project team further enhance the development of these collaborative skills through our training programme.

#### Modules

The programme has 3 core learning modules: 1) Leadership in Healthcare, 2) Behaviour Change, and 3) Quality Improvement and Project Management. The fourth module is a work-based project in a specific area to apply their learning to practice immediately. The pharmacists doing ALF-A will lead on one of the CwPAMS' overall project objectives, from planning, implementation, and evaluation to reporting.

#### Training Delivery

ALF-A adopts a blended learning approach, including self-directed learning and online courses, supported by live webinars and active learning sessions to contextualise learning. AMS and Behaviour change online courses were developed by CPA experts and are accessible via our digital learning platform, whilst our partners deliver leadership in healthcare.

Self-assessment and 360-degree peer feedback, aligned to the selected FIP-GADF competencies, support the development of the leadership development plan as well as leadership goals and focus areas during the fellowship year. The Fellows are supported by incountry and UK-based mentors to assist in tracking their progress against their personal leadership development plan.

#### The cohorts

The first cohort of this 12-month fellowship started in October 2023 and enrolled 30 pharmacists from CwPAMS health partnerships in Ghana, Kenya, Malawi, Nigeria, Sierra Leone, Tanzania, Uganda and Zambia. Fifteen pharmacists from the same countries started in January 2024.

#### Programme Evaluation

A mixed methods approach is being used to evaluate the impact of ALF-A on the fellows' leadership and professional development, as well as the benefits to health services. Monitoring and evaluation tools include a) pre- and post-program self-assessment and 360-degree tool completed by up to 5 senior colleagues, b) feedback questionnaires, c) knowledge quizzes and d) qualitative methods to gather views and opinions about the programme to determine the impact on fellows' leadership roles and to identify the factors (if any) impacting the adoption of new learnings into existing systems.

#### Conclusion

ALF-A has been developed to support pharmacists in developing competencies in leadership in healthcare necessary to support multidisciplinary working to deliver effective interventions to address AMR challenges within the African context. Although this phase of the ALF-A is mainly focused on AMS, the programme can be adapted to other areas of healthcare practice, such as non-communicable diseases and medicines management.

## References

See attached file

# Revolutionizing Pharmacy Recognition: Evolution of the Australian and New Zealand College of Advanced Pharmacy Background

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#### **Abstract - Objectives**

#### Background

The Australian and New Zealand College of Advanced Pharmacy (ANZCAP) represents a pioneering advancement in pharmacy recognition and career progression. Addressing the limitations of previous models that struggled to gain broad support, ANZCAP emerged as a strategic response to bridge the recognition gap within the pharmacy profession.

Aims

The need to establish a recognition framework that resonated with pharmacists, aligned with their career journeys, and held tangible benefits prompted the inception of ANZCAP. Recognizing that existing programs lacked broad appeal, ANZCAP aimed to redefine recognition in a way that was meaningful, inclusive, and motivated pharmacists toward continuous development.

#### **Abstract - Method**

The development of ANZCAP commenced with the acquisition of the Advancing Practice (AP) credentialing program by The Society of Hospital Pharmacists of Australia (SHPA). Previous efforts to engage pharmacists with the program were reassessed, and a comprehensive review process was initiated to devise an innovative and pragmatic model of recognition. Development comprised multiple phases, including qualitative surveys, workshops, focus groups, and expert consultations. Through an iterative approach, ANZCAP evolved into a prospective, merit-based system recognising specialty areas and levels of practice in line with existing medical nomenclature.

Three recognition programs were developed.

- Foundation program: recognition based on evidence of Prior Professional Experience.
- Independent program: development of a portfolio of forty learning experiences subsequently submitted for recognition.
- Training programs: adaptation of existing 2-year intensive workplace-based programs for pharmacists working towards Resident or Registrar recognition.

All programs are housed within an intuitive online portal, enhancing accessibility and user experience. This portal serves as a centralized hub, streamlining the portfolio building and recognition process.

#### **Abstract - Results**

To date, through the Foundation program, over 600 pharmacists have been recognised at Resident, Registrar, or Consultant level. Initial portfolio submissions from the Independent program, launched in November 2023, are expected from mid-late 2024.

Existing training program candidates are being transitioned to the ANZCAP program to complete their programs with new candidates automatically enrolled into the new program.

#### **Abstract - Conclusions**

ANZCAP's future involves strengthening the alignment of recognition with promotion and remuneration mechanisms, enhancing engagement among pharmacists. By seamlessly integrating learning experiences with Continuing Professional Development (CPD) activities, ANZCAP aims to foster a culture of lifelong learning and advancement.

In the broader landscape, ANZCAP's journey involves cultivating partnerships with international pharmacy associations, leveraging collective expertise, and fostering an inclusive recognition culture. The program's evolution will be guided by feedback, research, and a commitment to advancing pharmacy practice globally.

# Collaboration at its core: Developing the healthcare workforce for person-centred practice

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#### **Short Paper**

This presentation will provide an overview of a strategic programme of work undertaken by the Person-centred Collaborative Operational Group (PC-CoG) at Ulster University together with our regional, national and international partners, to develop the healthcare workforce for person-centred practice. We will outline how we have worked collaboratively to advance research, education and scholarship in this field. This includes the development of the workforce by embedding person-centred philosophy and principles in undergraduate and postgraduate healthcare curricula, investigating internationally educated nurses' preparedness for person-centred practice, and developing and measuring the impact of development programmes to support those working in healthcare education and practice. We are committed to leading this agenda to capitalise on the transformative impact of Higher Education in promoting the highest quality healthcare for patients, families, healthcare professionals and communities.

Our work is underpinned by the Person-centred Practice Framework (McCance and McCormack 2021), and the Person-centred Curriculum Framework (McCormack et al. 2022, O'Donnell et al. 2022, Cook et al. 2022) which provide a conceptual overview of factors that collectively influence the achievement of person-centred outcomes and healthful cultures in healthcare education and practice. Our local, national and international collaborations have enabled us to reach out and influence the development of person-centred healthcare professionals with the knowledge and skills to practise in person-centred ways. Our approach to operationalising person-centredness in the healthcare workforce is illustrated in Figure 1.

Figure 1: Partnership working with collaborators and strategic partners

Through rich collaborative working, the team has led the design and delivery of a sustained programme of curriculum innovation. Acting as role models and change agents for person-centredness in healthcare curricula and practice has resulted in our School being ranked 1st in Ireland and 7th in the UK (Times 2023). Working as a team, we have transformed the student learning experience by promoting the development of person-centredness in healthcare curricula. Our collaborative influence and impact are chronologically evidenced through:

- An award winning, internationally significant doctoral participatory action research project that focused on how the caring attributes
  of undergraduate student nurses could be developed and sustained over time when students learnt in a programme grounded in
  person-centred principles (Cook et al. 2018). This resulted in the creation of the first regional, electronic, Northern Ireland Practice
  Assessment Document (e-NIPAD) based on the Person-centred Framework for Practice Learning and is now a regional learning
  and assessment tool.
- Leading, developing and implementing a novel Person-centred APP, which is used internationally to evidence nurses unique
  contribution to patient and family experiences of care across healthcare settings (McCance et al. 2020).
- An award winning, internationally important, doctoral mixed methods study demonstrating how, on completion of their studies, students' perceptions of their person-centred practice were improved, having experienced a person-centred curriculum (O'Donnell 2021). The Person-centred Practice Inventory-Student instrument developed and psychometrically tested as part of this research, is the first theoretically derived instrument to measure students' perceptions of their person-centred practice (O'Donnell et al. 2021). This instrument is being adapted for use in China, Norway, Sweden and Spain.
- Co-leading a pan-European Erasmus+ Project to develop person-centredness in healthcare education resulting in the development of the Person-centred Curriculum Framework that has been pioneered through healthcare curricula at Ulster University.
- Leading the evaluation of development schools to support facilitators and leaders of person-centred education in Higher Education and practice
- Establishing a UK Collaborative Research Network in partnership with the Nursing and Midwifery Council to investigate and support the development of the internationally educated nursing, midwifery and nursing associate workforce for person-centred practice
- Receiving a national Advance HE Collaborative Award for Teaching Excellence (CATE 2023) in recognition of our sustained, sector-leading work in promoting person-centredness in healthcare education, research and practice.

This presentation will consider challenges and opportunities that influenced the success of the PC-CoG. The key message is that person-centredness in healthcare practice has collaboration at its core. This aligns with our vision and values that excellence is achieved through being together, working together and learning together.

# Virtual reality simulation for collaborative competencies in healthcare education

Dr Silje Stangeland Lie, Associate professor / Head of Department, VID Specialized University

#### **Short Paper**

An interdisciplinary project called "Solstien 3 - a digital learning house for student-active learning methods" was conducted from 2021-2023 at VID Specialized University in Norway. The primary goal of the project was to enhance the quality of education and make students in the bachelor programs of nursing, occupational therapy, social education, and social work better equipped to understand and act professionally and ethically when encountering people in vulnerable life situations.

In the project, we developed realistic scenarios that were filmed with 360°-cameras and are to be experienced in VR headsets. The scenarios depict complex and ethically challenging situations and are to be followed by learning tasks focusing on developing students' ability to reflect and exercise professional judgement. Reflections and discussions about the scenarios and the professionals' actions strengthen the students' skills in effective communication and increase their theoretical understanding. The scenarios and learning activities were developed based on results from surveys sent to students, faculty, and professionals from the field mapping their training-needs, as well as input from student-participants throughout the project period. The VR-simulation has been conducted with over 1000 students from the four education programs, and we have collected data by means of focus-group interviews and surveys with the aim to explore students experiences as well as the usability of the VR simulation.

Results from the project and research conducted throughout the project period shows that VR-simulation in healthcare education is an effective method for simulating practice-near situations and build collaborative competencies. Feedback on the 360°-videos and the VR-simulation has been overwhelmingly positive and was experienced as engaging learning experiences by the students. The technology has proven useful but also demanding, both technically and in terms of resources. Effort is still required to fully implement it in the educational programs. However, the project has strengthened the focus on interdisciplinary learning activities and healthcare simulation and increased the faculty's competence in using technology for student-activity.

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# Progressive Muscle Relaxation in Pandemic Times: Bolstering Medical Student Resilience through IPRMP and Gagne's Model

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#### **Short Paper**

Background: Medical education, already demanding, has been further strained by the COVID-19 pandemic's challenges and the shift to distance learning. This context underscores the need for effective stress reduction techniques in competency-based medical curricula (CBMC).

Objective: We assessed the feasibility and benefits of integrating a Progressive Muscle Relaxation (PMR) module—a known effective stress-reducing technique—into a time-restricted CBMC, particularly given such modules often find placement as elective rather than mandatory.

Methods: Adapting Gagne's nine events of instruction, a two-hour PMR program was designed and implemented during the pandemic. Twenty participants were engaged on a first-come, first-served basis, ensuring adherence to social distancing measures. Feedback was continuously gathered, leading to two post-program focus group sessions. Qualitative data underwent thematic analysis following Braun and Clarke's approach, with study quality maintained by the Standards for Reporting Qualitative Research (SRQR). To gauge adaptability, we aligned the program with various learning outcomes frameworks and explored its fit within CBMC using Bourdieu's Theory of Practice.

Results: The pilot PMR program was well-received and effectively incorporated into our CBMC. Our analysis revealed five central themes tied to PMR's impact: Self-control, Self-realization, Liberation, Awareness, and Interpersonal relationships. Feedback indicated the program's capacity to mitigate stress during the pandemic. The SRQR confirmed the study's alignment with qualitative research standards. Further, the PMR program's contents resonated with principal domains of learning outcomes, and its integration into CBMC was supported by Bourdieu's Theory. These observations led us to propose the Integrative Psychological Resilience Model in Medical Practice (IPRMP), a model that captures the intricate interplay between the identified psychological constructs.

Conclusion: This research showcases an innovative, theory-guided approach to embed a well-being program within CBMC, accentuating PMR's role in fostering resilience among medical students. Our PMR model offers a feasible, cost-effective strategy suitable for global adoption in medical institutions. By instilling resilience and advanced stress-management techniques, PMR ensures that upcoming healthcare professionals are better equipped to manage crises like pandemics efficiently.

Strategizing PLATO with Scrum: Transforming Medical Education by Bridging Basic Sciences and Clinical Knowledge in Competency Based Medical Education

Prof Yaj Banerjee, Associate Professor Of Biochemistry, Mohammed Bin Rashid University Of Medicine and Health Sciences (MBRU)

# **Short Paper**

Background: In the evolving landscape of medical education, post the Flexnerian revolution, the integration of basic sciences with clinical knowledge poses a significant challenge in Competency-Based Medical Curricula (CBMC). To address this, our medical school developed PLATO (Peer-assisted Learning (PAL), flipped-teaching and gamification), a support system derived from the integration of Peer-assisted Learning (PAL), flipped-teaching, and gamification. These strategies, embedded within PLATO, are grounded in educational theories such as social constructivism, experiential learning, and self-directed learning, each contributing uniquely to the holistic development of medical students.

Objective: PLATO is designed to bridge the integration-gap in CBMC, aligning with the modern educational mandate for a more integrated and student-centred learning approach. The framework is based on Mento's change management model, ensuring its seamless integration into the medical curriculum and aligning with global educational goals for equitable and sustainable practices. Method: Implementing PLATO in the preclinical phase of the CBMC involved a comprehensive needs-assessment, followed by its application in Biochemistry. The system's effectiveness was assessed using Kirkpatrick's four-level evaluation model, with an emphasis on cognitive development and student feedback.

Results: The adoption of PLATO led to significant improvements in integrating basic sciences with clinical knowledge. Enhanced student engagement, improved problem-solving skills, and higher retention rates were observed, indicating the effectiveness of the integrated learning strategies within PLATO.

Implications: PLATO exemplifies an innovative educational strategy in CBMC, combining active learning approaches like peer-assisted learning, which fosters collaborative knowledge construction, with flipped-teaching, which promotes critical thinking and self-directed learning. Additionally, gamification elements enrich the learning experience by providing practical, real-world applications of theoretical knowledge. This multifaceted approach not only addresses the current educational challenges but also sets a precedent for future advancements in medical education, in line with SDG4 and the UNESCO 2021 mandate.

Conclusion: The successful implementation of PLATO demonstrates its potential as a transformative educational tool in CBMC. It effectively addresses the integration-gap, paving the way for a more engaging, comprehensive, and forward-thinking medical education system, thereby continuing the legacy of the Flexnerian revolution, and contributing to the global dialogue on sustainable educational practices.

# Results of an International IPE Event - Outcomes, Student Perceptions, and Future Actions

Dr Ann Marie Curtis, Director of Interprofessional Education, Maine College of Health Professions Mrs Suzy Plows, Manager, Centre for Interprofessional Education and Learning, University of Nottingham

#### **Abstract - Objectives**

Healthcare is dynamic. As healthcare students graduate and enter practice, they will encounter situations, technologies, opportunities, and challenges unknown today (Brandt et al., 2019). Future healthcare professionals will need to be adaptable and develop metacognitive habits to provide competent care and remain current in their professions. The need for collaboration in healthcare will only grow with time; collaborative competencies, such as effective communication, conflict resolution, critical thinking, and teamwork, will be as crucial to the delivery of quality care as profession-specific knowledge and skills.

As interprofessional education (IPE) leaders at our respective institutions, we hypothesized that exposure to healthcare professions, perspectives, people, and cultures of multiple nations could help students broaden their thinking and provide students an opportunity to practice collaborative skills they will use in their healthcare careers. We developed and facilitated a three-hour pilot international IPE session for 122 pre-licensure healthcare careers students from the United States, England, and Wales. Participants represented four educational institutions and various health professions, including diagnostic medical ultrasound, medicine, nursing, pharmacy, public health, radiologic technology, and radiotherapy/oncology.

#### Abstract - Method

Students began with a visual thinking strategies session (VTS) (VTShome.org, 2023) as an icebreaker and to encourage students to think deeply. VTS is a metacognitive activity during which students carefully observe a piece of art and are led in a reflective discussion about the image. VTS promotes observation, communication, tolerance for ambiguity, collaboration, critical thinking, and the practice of supporting observations with evidence (Cerqueira et al., 2023; Chisolm et al., 2020; Paul et al., 2023). Because reflection is an essential process for healthcare professionals to learn and practice, a debrief session followed the VTS activity; students were encouraged to reflect on their process, participation, and outcomes related to the interactive VTS session (Kroshy et al., 2017). Next, students were separated into professionally and nationally diverse small groups to discuss a case study. The case, based on the

Next, students were separated into professionally and nationally diverse small groups to discuss a case study. The case, based on the work of Alkhatieb et al. (2020), focused on the care of an individual living with diabetes who developed foot wounds complicated by osteomyelitis. Small group discussions included how care for the patient would differ across professional and national boundaries, including a comparison of healthcare systems, insurance, and care facilities. A debrief followed the small group session, and healthcare professionals/faculty from participating institutions shared their perspectives via a panel discussion with questions and answers.

Finally, students heard from an individual who lives with a diagnosis of diabetes. Hearing from a patient contextualized the disease within the lived experience of a real person and helped students focus on the unique experiences of the individual versus learning about the disease in a manner focused solely on pathophysiology (Rand et al., 2019). This in-depth conversation addressed what it is like living with a chronic illness, insurance, medications, healthcare institutions and teams, medical devices, interprofessional collaboration, and communication.

#### **Abstract - Results**

At the end of the session, students were asked to complete an optional survey using the SPICE-R2 tool (Dominguez et al., 2015). Students were also asked to give narrative feedback on the session. A retrospective pre-/post-survey design was chosen to provide anonymity for participants, reduce response shift bias, and facilitate data management (Wisconsin, 2021).

Institutional Review Board (IRB) approval as an exempt study was received for this pilot session. Using the Wilcoxon signed rank test, quantitative data showed a statistically significant increase (p < .00001) in students' self-report on attitudes and thoughts about interprofessional collaborative practice after the session. Qualitative data from student comments and interviews were enthusiastically positive.

• "This was an amazing opportunity to be able to collaborate and learn about not only other professions but also other countries. This including how their profession functions but also how it functions inside of their unique healthcare settings! Absolutely recommend this for a future date!"

• "I really enjoyed the session, I have discovered so much about healthcare, especially in the US. It was great to hear the patient's perspective about her condition. It really made me think about how important it is that a patient feels in control of their condition and can make choices for themselves [sic], rather than be told! I would definitely be interested in attending another session."

Qualitative and quantitative data were analyzed to support the continuation of this IPE event and to guide the next steps.

#### **Abstract - Conclusions**

The pilot international IPE session was effective in bringing together professionally and nationally diverse healthcare students. Data and anecdotal evidence support the continuation of this session, which is easily replicable and adaptable. The presentation will share the process, outcomes, and next steps in our international interprofessional education session and attendees will be encouraged to adopt or adapt this pilot with their students in collaboration with faculty and students from other institutions.

# Recommendations for Nurse Educator education in Europe

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Prof Leena Salminen, Nurse Educator / Researcher, University of Turku

Imane Elonen, Nurse Educator, University of Turku

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#### **Short Paper**

Against a backdrop of evidence which revealed variances in the preparation and role of nurse educators across Europe, the Erasmus+ project titled New Nurse Educator established a set of recommendations for nurse educators' education at a European level. This project was led by the University of Turku, and the project partners were University of Edinburgh, University of Eastern Finland, University of Malta, International University of Catalonia, and Constantine the Philosopher, University of Nitra. The recommendations are the following:

- Set common European level qualification and competence requirements for nurse educators
- Develop international continuing education opportunities
- Promote occupation well-being in nurse educators
- Establish an Observatory for Nurse Educators (ONE)
- Establish a European Academy Nurse Educator education

This paper seeks to provide its audience an explanation and, moreover, it provides a rationale and justification for each of the listed recommendations.

In addition, in an effort to demonstrate the robustness of the recommendations, this paper presents a critical discussion of the research which informed the development of the recommendations, and of the extensive process which the project consortium designed and completed in view of establishing the relevance and robustness of these recommendations. Transnational research utilising surveys was carried out and an international expert panel review was employed accordingly during the project duration.

It is hoped that this showcase of the work which the NNE project carried out will enable the action and investment required to address the recommendations. In turn, the project consortium endeavours to support all initiatives in this regard towards enhanced preparation of nurse educators, their optimised performance and then improved well-being.

# Exploring Essential Skills for Healthcare Professionals in Integrating Digital Health into Practice

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Prof Carme Carrion, PI of the eHealth Lab Research Group, Deputy Director for Research of the Faculty of Health Sciences, Universitat Oberta de Catalunya

#### **Abstract - Objectives**

Introduction: Health systems globally confront numerous challenges, encompassing an aging population, uneven distribution of healthcare services, socioeconomic disparities, and interconnected human and planetary health issues. Amidst these challenges, the adoption of digital health emerges as a distinctive opportunity for addressing these concerns. However, the pace of digital transformation in healthcare lags behind other sectors, hindered by various factors such as technological, economic, legal, organizational, and human barriers. Notably, healthcare professionals often undertake data digitization tasks without adequate training or resources. This study aims to explore the essential skills required by healthcare professionals to effectively integrate digital health into their practice.

Objective: The paper pursues a dual objective—firstly, to identify opportunities for reimagining healthcare workforce education, and secondly, to delineate the competencies necessary for healthcare professionals to successfully incorporate digital health into their professional practice.

#### **Abstract - Method**

Methods: This collaborative study employed three distinct methodologies: 1) An international panel involving health science professors worldwide, facilitated by the International Association of Universities, to discuss the rethinking of healthcare workforce education. 2) A systematic review focused on identifying competencies essential for integrating digital health into professional practice. 3) A Delphi study designed to validate the findings from the systematic review, targeting a specific healthcare workforce segment: physiotherapists and psychologists.

#### Abstract - Results

Results: The international panel identified and agreed upon four key themes for reimagining healthcare workforce education: 1) Health and disease in an interconnected world; 2) Emphasis on interdisciplinary and interprofessional education; 3) Cultivation of soft skills to navigate uncertainty; and 4) Investment in e-health and e-learning. The systematic review, addressing the fourth theme and aligning with the preceding three, identified 20 theoretical frameworks comprising 5 to 317 competencies, organized into various categories and dimensions. A thematic analysis grouped the 963 competencies into 118 topics, further classified into 12 distinct categories. The subsequent Delphi process identified 72 out of the 118 competencies as pertinent to the incorporation of digital health into the professional practice.

#### **Abstract - Conclusions**

Conclusions: This study highlights key dimensions for training healthcare professionals in essential digital health skills. These dimensions encompass a wide range of competencies and are the following ones: a) Data and information management; b) Communication, collaboration and participation; c) Clinical practice and Applications; d) Professional development; e) Assessment and quality; f) Patient education, literacy and empowerment; g) Safety h) Professionalism; i) Ethics, deontology and legislation; j) Planning; and k) Technical skills.

The identified dimensions provide a comprehensive framework to guide the development of educational programs and initiatives for healthcare professionals, ensuring their ability in integrating digital health effectively into their practice. However, it must be taken into account that there is a divergence between the competencies described in the literature and those considered by professionals to be relevant, which highlights the need to integrate them into the development of theoretical frameworks.

The findings provide valuable insights for policymakers, educators, and practitioners, facilitating a more seamless integration of digital health into contemporary healthcare practices. Further research and collaborative efforts are warranted to refine and expand upon these dimensions across diverse healthcare disciplines to meet the evolving needs of the healthcare landscape.

# Improving Client Outcomes through Incorporating Health Behavior Models and Motivational Interviewing Skills into HealthCare Professionals Practice

Dr Noreen Nelson Clinical Assistant Professor, NYU Rory Meyers College of Nursing

# **Short Paper**

Engaging clients in the improvement of their health has been a major issue for many health care providers. Motivational interviewing (MI) is an evidence-based counseling style that promotes healthy lifestyle changes and behavior patterns by starting with the client's perspective of where they are at any point in time. Health care professionals who incorporate health behavior change theories and utilize MI skills in their practice facilitate clients to reach better outcomes by helping them to resolve issues with self-doubt and negative thinking. More important is that healthcare professionals are starting with the realty of their clients instead of the historical practice of "telling" client's what they should do to improve their health. Lifestyle changes are multifaceted and require knowledge of behavioral health. Behavioral change is a process. It involves shared decision making by incorporation of the individual's view of the world into the care plan to support sustained change. Multiple levels of influence exist, whether internal (intrapersonal), external (interpersonal), in addition to other influencing factors to consider such as institutional, public policies and/or financial. Motivation, Intention and Self-efficacy are key to successful health behavior change. Resistance (ambivalence) is part of the process of change and should be anticipated. Motivational interviewing is a method incorporating evidence-based communication skills that support improvement in client outcomes. This presentation will provide health care professionals with an overview of health behavior models and Motivational skills that can be incorporated into their practice to improve the outcomes of their client's health.

# Shared decision making: audiology student perspective

Ms Saira Hussain, Senior Teaching Fellow, Aston University
Mrs Claire Wilkes, Senior Teaching Fellow, Aston University
Mrs Nisha Dhanda, Assistant Professor, University of Birmingham

### **Abstract - Objectives**

Healthcare students need to ensure they have the knowledge and skillset to facilitate patient centred care. This encompasses joint goal setting and discussing evidence-based approaches for patients to actively participate in the management of their condition. This is a concept taught across Higher Education Institutes that deliver Audiology training in order for students to provide holistic patient care. Therefore, a pedagogical study was conducted to investigate the perceptions of Audiology students and the use of shared decision making in their clinical training.

#### **Abstract - Method**

Twelve students participated in three focus groups from across the undergraduate BSc audiology cohort. This consisted of one focus group comprised of Year 1 and Year 2 students, one with Final Year students, and one with Work-Based Learning students. Students were asked to comment on their beliefs on Shared Decision Making, clinical tools to support patients with this and teaching feedback and appraisal. All interviews were transcribed and data were analysed using Thematic Analysis.

#### **Abstract - Results**

Student's ability to define Shared Decision Making was influenced by three factors. These included the use of Decision Aids, using a Range of Resources and The Ida Institute. Students provided further insights into enhancing pedagogical approaches to teaching and assessing patient centred care.

#### **Abstract - Conclusions**

Shared Decision Making was valued by the students in this study. Whilst this topic is explored in wider healthcare/medical field, this study is one of the first to explore audiology students specifically. This study indicates what aspects of clinical training support their development as healthcare professionals and how future teaching practices can be adapted and improved for students across the audiology field. Future research will explore the role of patient's perception of clinical teaching around shared decision making.

# Skills Development for Clinical Students - Leadership, Innovation and Quality

Ms Saira Hussain, Senior Teaching Fellow, Aston University Mrs Zahra Gill, Teaching Associate, Aston University

#### **Abstract - Objectives**

Healthcare students will progress into leadership roles and service leads. It is important they have the opportunities to practice teamworking and leading skills. Th

This abstract focuses on the module taught to clinically based MSc students, who work in healthcare. They undertake teaching and learning on a module titled 'Leadership, Innovation and Quality'. The aims of this module are to:

- Analyse leadership models in order to develop their own leadership style
- Evaluate processes for quality improvement
- Evaluate innovations within healthcare
- · Create a healthcare based business case

This module has been developed iteratively using student, healthcare stakeholders and experts in healthcare fields to enhance the clinical applicability of this module and to include authentic assessment.

#### **Abstract - Method**

MSc students undertake this M-level module towards the end of their degree programme. The students on this MSc undertake theoretical learning alongside clinical training in their healthcare departments. Students from the fields of Audiology, Neurophysiology and Ophthalmic & Vision Science undertake this module, with the use of team-building activities and group and independent assessments.

Students are provided with a wealth of materials to work through, supplemented by seminars and workshops. These live sessions are provided to support students to meet the learning outcomes of the module as well as the assessment aims. Students will need to reflect on their own leadership style for a recorded presentation, provide a business plan for an innovative process for service improvement and finally, present group presentation on a quality process. The assessments are designed to link together and provide a stepped approach in regarding critical thinking and appraisal skills. Reflection is a key component of the module and students are required to provide a reflective commentary in their presentations.

#### Abstract - Results

Students have previously performed well in the various assessment tasks. Students are engaged and interact within the live sessions, which are hosted by clinical leads and healthcare experts. Heads of departments and accountants are examples of this. Students have reported that the module challenges them to learn new skills, reflect on their current practice and seek innovative ways to enact change. Students reflect on their own future roles and responsibilities, and set out the steps required of personal and professional development.

# **Abstract - Conclusions**

These topics are important for aspiring leaders in healthcare. The mixed approach with the different specialties allow opportunities for interprofessional education, collaborative working and reflection. The module aims to include co-creation in the future to allow for further authentic assessment opportunities by practicing leadership and innovation as a MSc student. The author will showcase their own learning and tips for this topic.

# Collaboration Competencies in an International Academic Nursing Partnership: Strengthening the Brazilian Health System

Prof Andrea Sonenberg, Professor, Pace University

Prof Ana Luisa Brandao de Carvalho Lira, Associate Professor, Universidade Federal do Ceará

Prof Isadora Andriola, Occupational Nurse, Universidade Federal do Rio Grande do Norte

Professor Marjorie Melo, PhD, RN, Assistant Professor, Universidade Potiguar

#### **Short Paper**

Based on the principles of the Declaration of Alma Ata (1978), the World Health Organization (WHO) recommendations include that countries provide their population with Universal Coverage in Health to ensure equity, access and quality of care. One of the strategies for strengthening Primary Health Care (PHC), and thus improving health indicators, is to expand the health workforce, especially by extending nurses competencies (WHO, 2016). Despite the progress that has been done in its Health Care System in the last two decades, Brazil still struggles with social and health inequities (PAHO 2017). This country has significant disparities in access to health care, poor infrastructure at the public health units and inequitable health workforce capacity across different regions. In this context, the introduction of Advanced Practice Nurse (APN) roles could be an effective tool for addressing the urgent need to expand access to PHC, particularly in health care provider shortage areas (HPSA), such as rural areas and peripheries. Brazil's educational structure and capacity put the country in an excellent position to support the implementation of the APN role into the inter-professional health workforce team. The process to advance the role requires international and interprofessional partnerships. Successful international collaborations, both intraprofessional and interprofessional require collaborative competencies.

Thus, this story is one of an international collaboration budding during a qualitative research project in 2009, evolving to two educational programs across oceans and across time, and being maintained through scholarship throughout the following 14 years. This international collaboration in nursing education, research, and advocacy resulted in publication of several articles in scientific journals; the carrying out of a technical visit by a foreign researcher to Brazil; the offering of a subject on APN in a Brazilian nursing graduate program; the completion of two sandwich doctorates by Brazilian students in the United States of America; and a multicenter research study supported by international funding. The partnership endures with attention to collaborative competencies and its shared goal. This presentation will guide the audience on a journey across place and time to observe the evolution of a lasting global partnership dedicated to improving health in a middle-resource country, honoring the memory of the most senior and instrumental of the initial two partners.

# Learning Together to Work Together: Developing Collaborative Care for Patients with Head and Neck Cancer

Mrs Emma Pope, Senior Lecturer & IPE Lead, Cardiff University Dr Amanda Squire, Lecturer, Cardiff Metropolitan University

#### **Abstract - Objectives**

Health Education and Improvement Wales (HEIW) are responsible for commissioning a range of healthcare education programmes, including those for Dieticians and Therapeutic Radiographers. From September 2022, requirements of HEIW for institutions providing education for these disciplines requires that Interprofessional Education comprises 20 per cent of the curriculum. Collaboration between educational institutions is key to delivering these objectives.

One area where Dieticians and Therapeutic Radiographers work collaboratively in the clinical environment is with patients diagnosed with a Head and Neck cancer (HNC). NICE (2004) recognised the potential for the treatment of HNC to leave patients with structural and functional deficits requiring expert care before, during and after treatment. Sutherland and Moline, (2015) highlight that in order to provide the complex care needs of these patients, interprofessional collaboration is required. Radiotherapy can cause severe issues with nutrition for HNC patients and close collaboration between Therapeutic radiographers and Dieticians is required to limit unintentional weight loss, which can have detrimental effects on the patient prognosis.

This paper will explore an interprofessional pilot activity designed by staff at Cardiff University and Cardiff Metropolitan University. The IPE activity focussed on students working together over a two-week period to develop a pre-radiotherapy review meeting of a simulated patient.

#### **Abstract - Method**

Participating students were asked to complete the Interdisciplinary Education Perception Scale (IEPS) at the start and end of the activity to allow changes in their attitudes towards IPE to be determined. Student perceptions regarding the activity were gathered through a qualitative questionnaire and during the facilitated debriefing session.

# Abstract - Results

Initial analysis suggests that there are changes in the attitudes of students towards IPE as a consequence of this activity. We will present the results from the analysis of the IEPS and qualitative questionnaires within this presentation.

# **Abstract - Conclusions**

The Dietetic and Therapeutic Radiography students who participated in the simulated pre-radiotherapy review meeting recognised the value of interprofessional activities in developing their knowledge and understanding of other professional groups involved in the care of a HNC patient. For future development, a broader spectrum of relevant professionals would have provided a more realistic collaborative opportunity.

# Elderly care organizations as the initiators of caring neighborhoods; a suitable solution?

Dr Noor Van Duijnhoven, Sr researcher, HAN University of Applied Science, School of Health Studies Dr Miranda Laurant, Professor, HAN University of Applied Science Ms Ellen van Wijk, Researcher, HAN University of Applied Science

### **Abstract - Objectives**

Sustainability of high-quality health care is a major challenge, due to financial and personal shortages and social support. This account also for elderly care, which faces problems that are aggravated by the double ageing of the population. Therefore, urge exists for the development of innovative ways of thinking about and organizing care. This includes changes to domain-cross, community and network care, in which professional care, social welfare and citizens join forces. To realize future-proof arrangements and living which contribute to meaningful ageing for the elderly, elderly care organizations in the Netherlands initiated several testing grounds in the beginning of 2023. Goal of this study was to explore initial network movements towards community building / caring neighborhoods and to define general factors that influence the developments in these testing grounds.

#### **Abstract - Method**

Participative action research (PAR) was conducted in five testing grounds (districts or neighborhoods) concerning a housing and care concept on elderly people, with a high range in contextual factors and located in a variety of environment. PAR is suitable to realize a change in practice, due to its participatory nature of the actors, ie. the care providers, (future) elderly, citizens, welfare, housing cooperations and policy makers. In co-creation with all stakeholders, the first two steps of the Practice Development cycle were performed: determination of situation and focus. Each testing ground had one project leader related to an elderly care organization and one researcher, who supported the action combined research. In the testing grounds, awareness on the upcoming problems on elderly housing and care was created and developments on community building / caring neigborhoods were facilitated. Cross-analyses on generic factors was performed including all testing grounds and experts on community building, physical environment, cross-domain care and social business case. Factors were categorized on the five elements of the existing model on collaboration between organizations (Kaats & Opheij, 2012): ambition, interests, relationship, organization and process.

#### Abstract - Results

There was a large variety in involved/engaged partners, developments and actions over time within the five testing grounds. Cross-analyses revealed several generic factors in each of the five elements of the model on collaboration between organizations. Several factors concerned two or more elements. Among other things, findings were on a ownership of the ambition, transparency of the elderly care organization (the true story please), equal partnership, unframing of the organization, and early inclusion of all important stakeholders. Furthermore, one transcending factor was defined, concerning the attitude and opinion of professional care organizations towards community building. Lessons learned were formulated and evaluated in the testing grounds, which will continue their work

#### **Abstract - Conclusions**

This study revealed insight in several main issues on a network collaboration to create a solution-oriented movement for a complex problem such as sustainable elderly care. Although the elderly care organizations initiated and the surroundings and facilitated the first steps, citizens and the community are an indispensable partner in the actual movement on community building and care solutions. Health workers should embrace this knowledge and actively implement the lessons learned, in order to better support collaboration networks including professional care, social welfare and citizens.

# MidMed: Simulated Interprofessional Collaborative Practice for Midwifery and Medicine Students

Miss Zakiya Nosakhere, Assistant Professor of Midwifery, University of Nottingham

#### **Abstract - Objectives**

The Centre for Interprofessional Education and Learning (CIEL) at the University of Nottingham held a day of interprofessional education for midwifery and medicine students, MidMed: Simulated Interprofessional Collaborative Practice for Midwifery and Medicine Students, with the aim of improving their interprofessional communication, understanding of shared values between professions, knowledge around roles and responsibilities in maternity care, and teamworking skills (Interprofessional Education Collaborative, 2023). The day was made up of four parts: an introductory lecture, a small-group case study discussion with an interprofessional expert panel of midwives, doctors, and patient advocates from the hospital trust that is linked to the university, four simulated clinical skills scenarios that were co-facilitated by teaching and maternity unit staff, and a debrief session at the end of the day. Students were assigned an interprofessional group at the start of the day, which they stayed with throughout the day.

The focus of this interprofessional education initiative was to provide students with a safe space to practice their interprofessional competencies in a safe environment, enabling them to experience obstetric emergencies, as well as explore managing complex safeguarding situations and nuanced cultural scenarios.

The development of this IPE initiative was motivated by the findings of two independent investigations into maternity services in England (Kirkup, 2022 and Ockenden, 2022). From those, poor interprofessional communication and teamworking were seen as having significantly impacted on maternity care leading to deaths and significant injuries to babies and mothers that could have been prevented. The recommendation from the report findings is to implement robust interprofessional education (Wilkinson, 2022).

#### **Abstract - Method**

After attending MidMed, students were asked to complete a feedback questionnaire to help determine their perception of the IPE training and detailed questions on the individual activities to gauge their level of perceived benefit from each section. We also collected feedback from the university staff and members of the hospital team who helped to facilitate the clinical skills scenarios and provide feedback on the expert panel to help us compare their perceptions to the students'.

The qualitative data that was collected was thematically analysed using NVivo to gain a better understanding of the overall response of students regarding MidMed. The quantitative data that was collected was analysed using descriptive statistics looking at the median and frequency distribution.

#### **Abstract - Results**

We will present how the student and staff perception of MidMed were overwhelmingly positive. The students shared that they were grateful for the opportunity and valued the chance to work with students from another profession in a clinical skills simulation, which they do not often get the chance to do. They also found the feedback from the maternity team expert panel to be beneficial to their learning and development, appreciating the real-world stories that they shared with the students.

#### **Abstract - Conclusions**

Based on the results, MidMed as an IPE initiative appears to be a comprehensive first step in bringing midwifery and medicine students together to work on improving their interprofessional competencies and skills to improve maternity teamworking. This is the first academic year that we have held the full initiative. As we continue to deliver MidMed on an annual basis, we aim to determine the impact of the activity in a long-term longitudinal study.

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Strategy based on active methodologies in the first years of a health career to develop the skills and abilities necessary for collaborative practices and interdisciplinary competencies

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#### **Abstract - Objectives**

Introduction: The importance of interprofessional teamwork, interprofessional collaboration, interprofessional coordination and fostering interprofessional networks is a fact (Davidson and Savonick, 2017). In the current training of future health professionals, the competencies defined as key to interdisciplinary work, in particular teamwork and collaborative practices, are not actively addressed until the final stages of their training, where they should be put into practice.

It was based on the need to promote the development of key competencies for interdisciplinary work, in particular teamwork and collaborative practices, in the preclinical stage, or basic sciences, to achieve better levels of performance when the clinical stages begin, where they should be put into practice. The intervention is conducted under the requirement that the intervention to be implemented should not involve programmatic changes.

The intervention was planned during the entire semester of a basic sciences subject, Physiology, of the Nursing career, articulating the development of the knowledge of the same, with the development of the skills and abilities necessary for teamwork, collaborative practices, and cooperative work. It was planned to do this through active learning strategies, in particular collaborative learning, and cooperative learning. Pre- and post-intervention evaluations on the perception of interprofessional competencies and disposition for interprofessional learning were made to the students, achieving statistically significant results in the dimensions of teamwork and collaboration

Objective: Incorporate early in the training of students, the knowledge, skills, and abilities necessary for teamwork, collaborative practices, and cooperative work, preparing them for the clinical stages, through active learning strategies, in particular, collaborative learning and cooperative learning.

Specific Objectives: 1) Develop a training strategy based on active methodologies, which can be inserted into basic or preclinical curricular activities to develop knowledge, skills, and abilities necessary for teamwork, collaborative practices, and cooperative work. 2) Articulate the integration of content with the development of the skills and abilities needed for the defined competence of teamwork, collaborative, and cooperative. 3) Determine the level of impact of the intervention on students' perceptions of the importance of collaborative practices.

#### Abstract - Method

Methods: A cross-sectional quantitative study was conducted in 24 students, using the validated version for Chile of the Readiness for Interprofessional Learning Scale (RIPLS), (Villagran et al. 2022) with measurements on the perception of interprofessional competences and disposition for interprofessional learning, before and after the intervention. Minimum, maximum, average, median and mode scores were recorded. A frequency analysis was performed, and response proportions were obtained for each item. This study was developed within the framework of the action research processes of the subject, being an integral part of the actions of continuous improvement of the teaching-learning process, for which the informed consent procedure was applied, with strict adherence to Law on the protection of private life and other current regulatory frameworks.

The design of the intervention plan sought, through the development of the stages, to make evident the difference between group work, which is the usual way in which our students carry out the activities, and cooperative learning.

Key aspects of intervention design:

- · Set goals and objectives for each stage and each activity.
- Organize and group students into teams of 4 or 5 people. No more and NO less. No individual tasks or activities were allowed when
  it was a team task.
- Design scenarios and situations that will strengthen interpersonal relationships and improve communication.
- Plan the reflective milestones and chain the phases of increasing complexity.
- Create performance appraisal milestones, which made evident the need for individual and team responsibility.

- · Apply self-assessment and co-assessment instruments for feedback and not for grading.
- Encourage and reward creativity, collaboration and cooperation with stimuli valued by students. Awards and Certifications for the
  activity.

#### **Abstract - Results**

Results: The intervention achieved statistically significant results in 2 of the dimensions. In teamwork and collaboration, which was the dimension that was actively intervened, statistically significant changes were seen in 9 out of 11. In the sense of identity dimension, statistically significant changes were seen in 4 of the 8 variables. In the patient-centered dimension, there were no statistically significant changes. 91% of the students indicated that they were very satisfied when comparing the learning obtained in courses taught with traditional methodologies, compared to those obtained with the methodology used.

#### **Abstract - Conclusions**

Discussion: Individual responsibility, reflected in the development of individual tasks and in the fulfilment of deadlines and adherence to formalities, was boosted by the presentation of individual performance indicators, and by objectifying group interdependence. Students took part in the corrections and improvements to their individual products and engaged responsibly with their peers. The formation of heterogeneous groups is a key aspect to advance in the development and achievement of competence, and it is a point to which special attention must be paid. Conducting self-assessment, co-assessment and hetero assessment with a Feedforwards approach is useful to awaken opportunities for development and improvement. It is key to ensure that students understand the differences between group work, teamwork, collaborative, and cooperative work so that they can take advantage of all the opportunities to develop these key skills, abilities, and competencies in later training routes. The progression of these must be set up, since they are those needed for interdisciplinary scenarios, especially when we move towards universal health. The sooner these types of competencies are developed, the less resistance and the less "disciplinary bias" students will have.

Conclusions: The intervention has brought about a change in the willingness to learn from, about, and with other students. We have validated that, for the objective formulated, the most appropriate learning strategy is combining meaningful learning with cooperative learning, where each student, when building knowledge in a team, explores, relates, codifies, compares, and analyzes analytical problems in the context, which allows at the same time to develop knowledge, information processing and critical-reflective skills (Maure and Marimón, 2014).

# Analysis of collaborative practice development strategy aligned with the Global Competency Framework for Universal Health Coverage

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#### **Short Paper**

The Global Competency Framework for Universal Health Coverage (UHC) (1) identifies health workers' competencies for the achievement of UHC organized into six domains: people-centered, decision-making, communication, collaboration, evidence-based practice, and personal conduct. The training centers for health professionals must guarantee that future graduates of higher education, in the very short term, will have these competencies, as proposed by the WHO. The results of the educational programs should be framed in what each health worker will do (their internship activities), in how they will do it (competencies) and increasingly in how each member and participant understands, comprehends, integrates, and collaborates with the other actors and participants of what we now call Universal Health. The WHO document emphasizes that competency-based teaching (CBE) is a deliberate and intentional specification of performance standards in terms of the required competencies and the behaviors that certify them and indicates that educators should make efforts to define and conceptualize competencies in relation to the performance of health work. It is a challenge, complex and requires coordinated efforts. Identifying how to develop the 6 domains and key competencies so that a student of health careers can arrive at the ""practice" as well prepared as possible is the great challenge.

Based on action research that we have been carrying out since 2020 for the early development of interdisciplinary competencies, an analysis is carried out to identify, of the 24 competencies, which can be addressed early, and which elements should be prioritized so that the interrelationships and interdependencies required for the maximum use of the preclinical training stages occur.

From 2020 to date, we have been carrying out action research focused on the development of interdisciplinary competencies in a basic sciences course at the School of Nursing, applying active methodologies to 134 students to develop the skills and abilities of collaborative practice in parallel to the knowledge of the course. One of the strengths of the interventions developed was to achieve learning based on experiences that make objective the differences between individual, group, team and collaborative learning. But we focus on collaborative practice competencies. This is because we understand that, if we want professionals with work skills, and collaborative practices, prepared for interdisciplinary scenarios, we must start with collaborative learning and cooperative learning, as early as possible in the training stages of the students.

Based on the Dreyfus and Dreyfus skills acquisition model, a detailed analysis of the collaborative practice competencies, of the interdisciplinary competencies with the 6 domains is carried out and it is identified which should be developed as a priority and which active methodologies are the ones that provide the best adaptive experiences in the first years of training. emphasizing that the activities can be approached in an interdisciplinary way (common for students of different careers). The domains of communication, collaboration, and personal behavior are identified as priorities.

A collaborative practice development strategy analysis is carried out and compared with the competencies defined in the Global Competency Framework for Universal Health Coverage.

Based on the Dreyfus and Dreyfus skills acquisition model, a detailed analysis of the collaborative practice competencies, of the interdisciplinary competencies with the 6 domains is carried out and it is identified which should be developed as a priority and which active methodologies are the ones that provide the best adaptive experiences in the first years of training. emphasizing that the activities can be approached in an interdisciplinary way (common for students of different careers). The domains of communication, collaboration, and personal behavior are identified as priorities.

Correlation between domain and indicators of Person-Centered Care of the RIPLS Scale and the attributes of (Readiness for Interprofessional Learning Scale) in Nursing Students in preclinical stages of training

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#### **Short Paper**

The idea of patient-centered health systems is widely advocated in policy and policy statements to better address health systems challenges. A patient-centered approach is advocated for political, ethical, and instrumental reasons and is believed to benefit service users, health professionals and the health system.

However, beyond a broad and ongoing discussion of available and effective strategies for promoting and implementing patient-centered approaches, this domain is not assessed as part of the learning outcomes of trainees formally.

The indicators of interprofessional competencies for the domain of Person-Centered Care (PCC) of the RIPLS Scale (Readiness for Interprofessional Learning Scale) obtained in an intervention for the early development of interdisciplinary competencies in our students were analyzed. As part of a project to develop key competencies for interdisciplinarity and collaborative practices in the initial stages of training, evaluations were carried out in the three dimensions assessed by the RIPLS scale, including ""patient-centered care"" (PCC), as well as ""teamwork and collaboration"" (TEC) and ""sense of professional identity"" (SIP). The intervention focused on enhancing the development of key competencies for interdisciplinary work, in particular teamwork and collaborative practices, in the preclinical stage, to achieve better levels of performance when the clinical stages begin. Measurements were made in SIP and PCC, since action research considers the monitoring of the progression in these students of the necessary skills and competencies in all dimensions.

Perceptions before and after the intervention were assessed using a 5-point Likert response scale, ranging from strongly agree to strongly disagree with the adapted version (VillagrÃin et all, 2022). The TEC and SIP dimensions showed statistically significant changes (ES) in 9/11 and 4/8 indicators. The CCP dimension showed changes in the 5 indicators, but did not result in SE. All 5 CCP indicators had high positive results (strongly and strongly agree) between 91% and 100%.

No changes were expected in the CCP dimension, but changes were observed in all indicators of that dimension that do not become statistically significant.

Recent studies establish the relationships between the concepts of patient-centered care (PCC/CCC) and family-centered care (CCF/FCC), in addition to establishing relationships between these and the integrated care models that Chile has adopted based on the dimensions of the integrative model of patient centrality (Klimesch et all, 2023).

Although the intervention did not focus on the patient-centered domain, it did achieve the development of 7 attributes out of the 22 required for the integrative model of patient centrality, which explains changes in this domain. The attributes that were identified associated with the changes were: Respect, Autonomy, Collaboration, Participation, Responsibility, Co-responsibility, Partnership.

Effects and Implications of the Intervention - Development of Attributes for Patient-Centered Care (CCP/CCP)

Students were involved in both corrections and improvements to their individual products, as well as with their team peers, as well as improving care.

Individual responsibility was boosted by the presentation of individual performance indicators and by objectifying group interdependence.

Self-evaluation, co-evaluation and hetero evaluation with a Feedforward approach were useful to awaken opportunities for development and improvement.

The formation of heterogeneous groups is a key aspect to achieve an early understanding of the differences between group work, teamwork, and collaborative, and cooperative work.

Discussion

The enthusiasm generated by ideas about participation, involvement, and user experience in health is inversely proportional to the conceptual and practical clarity on these issues (Montenegro, Bravo, Dois, & RodrÃ-guez, 2021). The same applies to the Patient-Centered domain, so it needs to be worked on.

For the development of interdisciplinary competencies, it is necessary to develop common attributes. And the interdisciplinary approach is necessary for PCC, FCC

RIPLS provides elements, but they are insufficient for PCC, so it is necessary to expand the indicators considering the dimensions of the integrative model of patient centrality (Klimesch et all, 2023).

Progress should be made in establishing the progression of the PCC and FCC indicators. And now we must address how to scale and progress the domains of professional sense and focus on the patient | People | community, in the same logic. Articulate experiential learning with mechanisms to achieve results.

# Discovering and Dreaming: Long-term Care Healthcare Aide Perceptions of Structural Empowerment

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#### **Abstract - Objectives**

Chronic and emergent care challenges have led to diminished quality of care in many long term care (LTC) facilities during the COVID-19 pandemic and beyond. Healthcare aides (HCAs) occupy a strategically important role in achieving improved resident care outcomes yet continue to experience disempowerment through authoritarian working conditions. The study provides a robust description of HCA perceptions of how organizational structures have empowered or disempowered them and the dream state for such structures.

#### **Abstract - Method**

An exploratory qualitative design informed by Kanter's theory of structural power was used, within an appreciative inquiry (AI) framework. All encompasses an optimistic egalitarian approach towards organization change and allowed HCA voices to be heard, protected, and valued. Convenience sampling was used to recruit ten HCAs from multiple LTC sites in a Western Canadian province. Eligibility included working at least 15 hours per week and working in their current role for at least 6 months. Demographic questionnaires were administered to obtain participant demographics. Virtual semi-structured interviews were used to gather rich descriptive data, allowing for in-depth understanding of participant perspectives.

#### **Abstract - Results**

The study yielded novel evidence of LTC HCAs' perceptions of structural empowerment and data analysis is in progress. Promising practices of high performing LTC facilities were uncovered while room for improvement in these and other organizations was highlighted. Early findings indicate that feeling appreciated by residents and autonomy in decision-making insulated HCAs from disempowering aspects of their work. Participants highlighted the importance of teamwork in creating efficiency, improving quality of resident care, preventing injuries, and reducing job stress. Short-staffing and use of temporary staff was a cause of poorer resident care and increased workload. Reflections on leadership tended to be positive, particularly in organizations that supported HCAs' pursuit of nursing studies. The study supported previous findings that minorities disproportionately occupy HCA positions.

### **Abstract - Conclusions**

This study has the potential to inform future interventions and research aimed at improving resident quality of care in ways that optimize HCA empowerment. It also has the potential to be used to inform modification of the CWEQ-II (a validated structural empowerment measurement tool) for LTC HCA populations.

A Social Return on Investment Evaluation of a university nature-based social prescribing pathway to support mental health, and wellbeing

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#### **Abstract - Objectives**

Social prescribing (SP) is a non-clinical approach connecting citizens to community support to better manage their health and wellbeing by means of holistic and person-centred methods empowering individuals to recognise their own needs and strengths. Wrexham University (WU) in Wales, offer a nature-based social prescribing (NBSP) pathway for students to connect with the campus and support their wellbeing. WU NBSP includes green and sustainable interventions to improve resilience.

To estimate the social return on investment (SROI) ratio of the WU NBSP pathway by comparing the costs of delivering the pathway with the monetised beneficial outcomes experienced by WU students in terms of mental wellbeing, confidence, and having access to high standard greenspaces.

### **Abstract - Method**

The NBSP pathway study was conducted between September 2023 and January 2024. Quantitative data was collected retrospectively via a one-time questionnaire from WU students. Outcomes measures included the Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS), General Self-Efficacy Scale (GSES), and a 'Time spent in nature' question. SROI ratios were generated from two separate wellbeing valuation methods: the social value calculator and the mental health social value calculator. Both calculators are derived from wellbeing valuation, a consistent and robust method recommended in the Treasury Green Book (2022) for measuring social cost-benefit analysis. Contingent Valuation (CV) questions were integrated to estimate Willingness to pay (WTP) to determine the value that students place on access and use of NBSP.

#### Abstract - Results

Results demonstrate that for every £1 invested in WU NBSP, £1.83 to £2.00 of social value was generated. CV estimates indicate that on average students are WTP £7 per session to avail of NBSP in quality greenspace with 38% of students stating that this is the value they place on the health benefits of NBSP intervention. In addition, SWEMWBS and GSES findings indicate that the majority of students experienced improved mental wellbeing, confidence, and increased access to high standard greenspaces.

# Abstract - Conclusions

The results presented indicate that the WU NBSP pathway generated a positive social value for students which is consistent with evidence from other NBSP SROI studies. Quantitative data indicated that 72% of students experienced improved in mental wellbeing, and 60% experienced improved self-efficacy as a result of access to high standard greenspaces. Although the reliability of the results may have been limited due to the lack of a control group, the mental health social value calculator considered this by adjusting for 'deadweight'. The social value calculator adjusted for deadweight, attribution, and displacement to avoid overestimating the social value generated from the WU NBSP pathway.

# H-PASS – A complex training course for healthcare professionals on digital and transversal skills supported by VR

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#### **Short Paper**

The advent of digital transformation has caused paradigmatic shifts in care provision, influencing doctor-client and team relationships through the proliferated utilization of digital solutions. The main objective of the H-PASS project is to design and pilot a training programme focusing on digital and transversal skills and up-to-date and evolving knowledge, responding to the emerging skills gaps. H-PASS is a project under EU4Health with 13 partners participating in the delivery from 6 European countries, including Cyprus, Greece, Hungary, Italy, Lithuania, and Romania. The training is to have a locally adaptable modular structure delivered through a state-of-the-art pedagogical methodology, including a VR learning environment within a blended learning setup. By engaging a diverse spectrum of health professions, including medical doctors, nurses, and pharmacists, the project aims at interprofessional education collaboration development as well.

The result of the planning process is a modular training structure that can serve both central and local training goals, delivered through an engaging training methodology. The structure includes 4 modules with the option of creating local module(s) as well, complemented with an onboarding module and a VR learning environment supporting the learning synthesis and assessment. The training modules focus on the following topics: 1) Adaptation to digital transformation, 2) Communication, teams, and culture in digital times, 3) Improving processes in the healthcare system, and 4) Data in healthcare. All modules target a) digital competence, b) transversal competence, and contain c) an action dimension. The modules are built on pre-defined learning outcomes (LeOs) divided into knowledge, skill, and attitude elements that are assigned to the thematic components, where all components can involve local training contents fulfilling the defined learning outcomes.

Contents and training materials are created based on the LeOs that build up the thematic components. LeOs include both a digital and a transversal dimension (e.g., Digital/Attitude: Open to learning about and trying new tools, applications, or Transversal/Knowledge: Principals of structured and constructive feedback), creating holistic training components (e.g., Digital technologies in healthcare (Module1), or Developing healthcare solutions (Module3)).

The training is based on a blended learning concept, whereas the interactive learning materials for individual work on the online learning platform are supported by on-site training. The online part of the training focuses more on knowledge acquisition, the on-site part emphasizes discussion, collaboration, and practice. Training participants are expected to work in teams, solve case studies with general or local relevance, and participate in training exercises; these comprise the action dimension of the training design.

The VR element is designed to help students synthesize their learning by solving problems in a virtual healthcare environment. These exercises are also planned to provide feedback on the students' performance, serving as a form of formative assessment. Summative assessment is also part of the training, as a pedagogical and operative element. The latter enables the formal Continuous Professional Development accreditation of the course, making the course more lucrative for healthcare professionals.

Training evaluation is designed based on Kirkpatrick's model, which will feed into the review of the pilot efforts and ultimately ensure the high quality of the training course.

Impact of a novel undergraduate teaching programme designed to improve students' confidence in assessing Ophthalmological patients

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#### **Abstract - Objectives**

To improve 4th year medical students' exposure to and subsequently knowledge of Ophthalmology through design and delivery of a novel teaching programme. Background: Ophthalmology is often deemed a post-graduate specialty and subsequently given limited time during medical studies. In many medical schools within the UK, Ophthalmology has become non-mandatory (1). The resultant effect is future doctors getting less exposure to Ophthalmological conditions, posing a huge risk to patient safety, particularly in diverse fields such as GP and A&E.

#### Abstract - Method

A specialised course was designed to provide medical students with skills in assessing Ophthalmological patients both in practice and on placement. The programme consisted of three sessions: two mandatory and one optional. Sessions involved simulation technology with fundoscopy manikins, slit-lamp examination practice and case-based discussions to consolidate learning. Programme success was measured by recording students' confidence in performing a number of skills related to Ophthalmology, before and after completion of the programme. An anonymous questionnaire was used to collect the data.

#### **Abstract - Results**

Pre-liminary results of 21 students (of anticipated 50 total) show a pre-programme mean confidence level of 4.5/10 for using Ophthalmological devices, 2.9/10 for identifying pathologies and 4.1/10 for focussed history taking. After completion of the programme, mean confidence levels for use of devices rose to 7.0/10, 6.1/10 for identifying pathology and 6.8/10 for taking histories.

# Abstract - Conclusions

From our initial results, it is clear the programme was successful in increasing medical students' confidence in assessing patients and using Ophthalmology specific equipment. The large variation in teaching styles (didactic teaching, practical skills, and simulation technology), allowed students to develop deeper understanding of an otherwise complex specialty. The purpose of such programmes is to ensure that students are given fair exposure to Ophthalmology, to improve the safety of patients presenting with eye conditions in the future.

Take-home Message: In a time where exposure to Ophthalmology at an undergraduate level is slowly diminishing, we must strive as medical educators to ensure that students are receiving meaningful and innovative teaching sessions. We must instil students with confidence in a variety of medical fields, including Ophthalmology, so they become well-rounded future clinicians.

# Post-COVID Healthcare Transformation: Embracing Innovation, Digital Technologies, and Collaboration in Health Education and Practice

Dr Hossein Khalili. Dean of Academic Administration. Winston-Salem State University

#### **Abstract - Objectives**

The aftermath of the global COVID-19 pandemic has underscored the imperative for a comprehensive transformation in healthcare education and practice, aligning it with societal needs and the evolving healthcare delivery landscape. This period of unprecedented disruption, devastation, and loss has, paradoxically, acted as a catalyst for long-overdue changes in healthcare education and practice. The rapid adoption of telehealth and virtual learning, fuelled by the pandemic, signifies a transformative shift in the way healthcare professionals are trained and healthcare is delivered.

#### Abstract - Method

Interprofessional collaboration emerged as a powerful force during the pandemic, facilitating healthcare transformation at policy and legislative levels, notably in the expedited recognition of internationally trained professions. The convergence of digital technologies, particularly the rise of artificial intelligence (AI) and the metaverse, is reshaping healthcare education and practice, with the pandemic solidifying and extending their role. Macro-level policies recognizing the significance of population health are instrumental for future interprofessional collaboration in addressing healthcare inequalities.

#### **Abstract - Results**

The pandemic has highlighted the crucial role of interprofessional education and collaborative practice (IPECP) in combating misinformation. By enhancing health literacy among healthcare professionals and the communities they serve, IPECP becomes a valuable tool to address the proliferation of inaccurate health information.

Looking ahead, the integration and sustainability of digital technologies, AI, metaverse, and IPECP in healthcare education and practice are pivotal. Reflecting on the experiences of employing these innovations during the COVID-19 pandemic is essential for informed decision-making in shaping future global healthcare systems. This research and evaluation aim to contribute to achieving the Quintuple Aim—better health, better care, better value, better work experience, and better health equity.

#### **Abstract - Conclusions**

As we emerge from the pandemic, we have a unique opportunity to leverage the lessons learned in fostering healthcare transformation through innovation, digital technologies, and collaboration. This presentation explores these themes and their implications for the future of healthcare education and practice on a global scale.

# The Joint Action HEROES - HEalth woRkfOrcE to meet health challengeS

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Dr Marco Di Marco, Scientific Coordinator, AGENAS

### **Short Paper**

HEROES stands for "health workforce to meet health challenges" and invokes the way Health Workforce (HWF) was called during the Covid-19 pandemic. The name of this Joint Action (JA) underlines the importance of HWF planning.

The aim is to improve the capacity of the EU Member States in terms of health workforce planning, as to ensure accessibility, sustainability, and resilience of healthcare services. An effective HWF planning could be part of the solution to the main challenges in all EU countries.

There is a panel of 19 countries participating in the Joint Action, stakeholder associations and other partners for a total of 50 partners. The JA started on 1st February 2023 and will end in January 2026 (36 months).

The main focus is on four key and transversal dimensions (tasks): HWF data (accessible and high quality), HWF Planning Forecasting Tools (robust and appropriate to estimate what the future supply and demand will be in different scenarios), HWF Planning Skills (increased ability) and the stakeholder involvement (optimise). It has a typical JA structure: Work Package (WP) 1 – Coordination, WP2 - communication and dissemination strategy, WP3 evaluation, WP4 sustainability of the project results and technical WPs 5-6-7 into which the 19 countries are distributed by cluster based on the type of national system of the country (public health system, social insurance system or a mix of public and private system) and on HWF migration; the idea is that they can learn from each other's good practices.

The JA development method is based on a stepwise approach: "AS IS", "TO BE" and "TO DO" phases whose results will be discussed with policy dialogues and briefs.

The first step, analysis of the current situation, is currently being finalised. So, there will be an overview of the starting point of the 19 participating countries and what challenges each country wants to overcome on the topic of health workforce in the four dimensions. In particular: type of data collected and sources, the data gaps, data validity, and data analysis, planning models and tools already existing describing HWF actual planning specifications (level, type of care, time horizon, type of professionals involved), skills and abilities of the staff in charge of HWF planning and the type of stakeholder involvement in place. Country-specific deficiencies, needs, experiences, and challenges will be highlighted at country level. A cross-country comparison aims to identify common challenges at cluster level, but more importantly to highlight good practices or interesting elements that can be discussed as potential means of improvement for other countries in the cluster. A cross-cluster comparison wants to share useful results before going through the other phases and create an Action Plan to improve the EU Member States' capacity on HWF planning.

# Strengthening the health workforce in the use of digital technologies

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#### **Short Paper**

Digital health is the use of information and communications technology in support of health and health-related fields. Technology is reshaping the healthcare system and as a result the relationship between the patient and the healthcare professional. To address the needs of digitalisation in healthcare implies the combination of knowing which technologies to use, aligned with skilled professionals to appropriately use these technologies. As the requirements of the varied health professional roles evolve, recognition of specific digital competences describing the required understanding, abilities and mindsets for effective professional practice are essential. This recognition is important to anticipate and equip healthcare professionals for the evolving landscape of healthcare technology, especially with the introduction of generative AI.

There is an experience and knowledge gap between digital tools and their users which needs to be addressed continuously in this process of digital extension of care. At present, the focus of digital competence is on knowledge and skills, and attitudes seem to play a much secondary role. Our research proposes a framework that develops both technical and enabling capabilities for present healthcare practitioners. Therefore, this research focuses on the urgent gap that there is a lack of a strategy to increase both technical competences and enabling capabilities that support active engagement in digital health transformation.

The aim of this research is to identify a best-practice digital competency framework for healthcare professionals to understand how digital solutions will support and enhance their capabilities, while remaining careful on the overreliance of digital technologies. The iterative development of this framework has made it evident that we must not only focus on the need to train the health workforce in digital competence, but also about understanding what that current healthcare system looks like and how the content presented will be accepted. Simultaneously, it prompts the significance of delving into the ethical implications and necessitates the establishment of robust governance mechanisms. A landscape assessment of existing competency frameworks related to digital health or data literacy is performed. This assessment is carried out by means of a scoping review, beginning with the development of an a-priori protocol with inclusion and exclusion criteria that relate clearly to the research questions and aim of this task. This will provide a clear understanding of how common standards or frameworks can be exploited as part of a structured methodology by addressing the following questions:

- 1. Which digital competences are needed by the healthcare workforce?
- 2. What do digital competency frameworks offer to better strengthen safety and efficacy in the healthcare profession?

Preliminary findings suggest that the approach to developing a robust framework, and its successful implementation require expertise to develop strategies, implement change and instil confidence among users. In view of this, it is proposed that the framework includes the following key domains: (i) Leadership competences (ii) Procedural competences and (iii) Enabling competences. Greater use of digital health tools needs to be facilitated by policy changes to regulation and reimbursement, supported by investment in technical infrastructure and enabled by training health professionals with appropriate and regularly updated training resources. If health systems are to retain added benefit from the use of digital health tools, active plans are needed to build on the current momentum.

# Interprofessional education evaluation and next steps

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Prof Maria Cordina, Professor, University of Malta

### **Short Paper**

Interprofessional education (IPE) has been highly promoted as a means of enhancing interprofessional practice and thereby having a positive impact on healthcare systems and patient outcomes. IPE is envisaged as a promising contributor to ensuring the appropriate supply and distribution of the health workforce. The WHO Framework for Action on Interprofessional Education and Collaborative Practice (WHO, 2010), affirms that there is sufficient evidence to demonstrate that IPE enables effective collaborative practice. In 2014, The Institute of Medicine convened experts who examined the evidence that links IPE to patient outcomes and concluded that "IPE can improve learners' knowledge, skills and understanding of interprofessional practice". However, this institution also acknowledged that "establishing a firm empirical relationship between IPE and patient, population and health system outcomes has proven more difficult" (Cox et al. 2016).

While it is the belief of many leading individuals and organisations that IPE will automatically result in improved outcomes, this is not entirely supported by solid evidence. The literature is replete with studies which were conducted to assess effects of IPE programmes, within different institutions and within different clinical environments e.g. mental health setting, emergency departments and surgical settings (Bowman et al. 2023). The results of these studies are based on claims of effectiveness rather than hard endpoints, such any improved healthcare outcomes. There are insufficient studies which assess the effectiveness of IPE interventions compared to separate, profession-specific interventions. Studies with robust methodologies such as randomized controlled trials, controlled before and after studies or interrupted time series type of designs with qualitative strands examining processes relating to the IPE and practice changes are lacking. Longitudinally designed studies to explore patient outcomes (Furness et al. 2011) and well- planned cost benefit analysis are also required (Reeves et al. 2013).

In view of the above, it is evident that the desired hard evidence is still missing. It is well acknowledged that there is much resistance to change due to sufficient lack of evidence as well as lack of leadership and possibly resources. Curricula also tend to add on IPE rather than modify the curriculum to embrace an IPE philosophy.

In the USA, the Health Professionals Accreditation Collaborative together with the National Centre for Interprofessional Practice and Education issued a Guidance on Developing Quality Interprofessional Education for Health Professions (2019) providing a framework which organisational leaders can use to design curricula through longitudinal planning. The latter may be used as a basis to set up IPE in different settings, which can then be evaluated with the robust methods detailed above, providing the firm evidence which is required. The approaches discussed could provide a more convincing platform for the uptake of IPE. Studies should generate evidence with regards to which stages and/or settings IPE would to be the most useful. In addition, IPE needs to be backed not only by solid evidence but also by political will if it is to effectively enhance health care institutions.

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# Interprofessional Medical Education

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#### **Abstract - Objectives**

The importance of interprofessional education (IPE) lies in building collaborative team working, vital in healthcare to improve patient care. An emphasis on IPE is not often found in healthcare curricula, with 85% of our intervention's attendees having never attended an IPE session before.

### **Abstract - Method**

On the 8th of December 2023 we held an IPE session which invited medicine, pharmacy, nursing and physiotherapy students. Participants were split into mixed groups, completing guided clinical scenarios and a simulation scenario. These scenarios were accompanied by question sets designed to encourage discussion and draw on the skills of each profession. A pre-session questionnaire gauged comfort with interprofessional working, using a ratings scale of 1 (strongly disagree) to 5 (strongly agree).

#### **Abstract - Results**

Queried on whether they felt comfortable working in a multi-disciplinary team (MDT), the average student's rating was 3.75 pre-intervention and 4.4 post-intervention, a 16.5% increase. Participants were questioned on whether they understood the job roles of the MDT members with a post-questionnaire average between 4 and 5, from between 3 and 4 pre-questionnaires. Participants valued the opportunity to "interact with students and staff of other professions" and were keen to take part in future MDT sessions.

#### **Abstract - Conclusions**

This intervention highlighted the positive impact of IPE, exposing them to the roles and responsibilities of their colleagues, to improve team working in the workplace. Increasing awareness of the effectiveness of these sessions could have a direct impact on the quality of interprofessional working in our future healthcare professionals and improve patient outcomes.

# Inter-institutional analysis of skin of color representation in dermatological lecture content at MD and DO Medical Schools

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#### **Abstract - Objectives**

The purpose of this study was to analyze the lecture materials provided in medical schools through a diversity lens. Skin pathologies manifest distinctively on various shades of skin and physicians must be equipped with the proper knowledge to identify and diagnose these conditions accurately and promptly. For most medical students, images in prominent textbooks and lecture slides are their first encounter with disease presentations. Therefore, it is important to analyze the diversity of skin tones in the content that is being delivered. Specifically, the use of images featuring darker skin tones compared to those depicting lighter skin tones.

#### **Abstract - Method**

This study analyzed lecture materials from two allopathic and two osteopathic medical schools. The analysis was limited to lectures given during the Skin/MSK block or dermatology block. The skin pathologies were organized into five categories: Inflammatory Disorders, Infectious Skin Disorders, Pigmented Disorders, Non-Pigmented Disorders, and Blistering Disorders. Images were classified as dark skin tones, light skin tones, and indeterminate based on the Fitzpatrick Scale.

# **Abstract - Results**

The results showed that of the 560 images analyzed, 96 images, or 17.14%, were representative of dark skin tones. 78.04% represented light skin-tone subjects and 4.82% were classified as indeterminate.

#### **Abstract - Conclusions**

A potential outcome of this study involves bolstering medical education in the United States by exposing medical students to a more diverse set of exemplary images during their didactic education. In doing so, medical students will be better prepared to provide high quality healthcare to all patients regardless of ethnicity.

# Closing The Gap: Improving Surgical Skills Teaching For Foundation Year One Doctors

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Dr Annabel Lloyd-Thomas, Clinical Teaching Fellow in Medical Education, Royal United Hospital Bath NHS Trust

#### **Abstract - Objectives**

The General Medical Council requires newly qualified doctors to be competent in basic wound care and closure (1). Despite this, there is minimal exposure to, and training in, basic surgical skills during the undergraduate and UK Foundation Programme curricula (2,3). There is therefore an impetus to improve surgical skills training amongst newly qualified doctors in order to enhance their ability to perform safe wound closure.

#### **Abstract - Method**

Foundation Year One (FY1) doctors completed self-assessment questionnaires establishing their confidence across three surgical skills domains before and following a series of two surgical skills workshops. Competency in each domain was determined through instructor assessment pre- and post- tuition. Paired sample t-tests were used to compare differences between the pre- and post-instruction data sets.

### **Abstract - Results**

12 FY1 doctors attended the series of surgical skills workshops. Participant confidence following tuition increased significantly in suturing (mean +1.85 95%Cl 1.07-2.62 P<0.001), surgical knot-tying (mean +1.55 95%Cl 0.77-2.32 P<0.001) and local anaesthetic infiltration (mean +1.45 95%Cl 0.92-1.10 P<0.001). Instructor assessment also reported a significant improvement in skill competencies in suturing (mean +0.83 95%Cl 0.60-1.07 P<0.001), surgical knot-tying (mean +0.92 95%Cl 0.74-1.09 P<0.001), and local anaesthetic infiltration (mean +0.5 95%Cl 0.19-0.81 P<0.003) following tuition.

#### **Abstract - Conclusions**

Current undergraduate training in surgical skills fails to ensure FY1 doctors are adequately equipped with the competencies required in clinical practice. This study supports the introduction of basic surgical skills teaching into the Foundation Programme Curriculum. This could subsequently improve trainees' confidence and competence in performing the requisite skills required for safe wound closure.

# Training in ultrasound cannulation better prepares students for modern clinical practice

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#### **Abstract - Objectives**

Ultrasonography is increasingly recommended for peripheral venous cannulation; improving the success rate in challenging patients, reducing patient discomfort, number of skin punctures and burden on senior staff. Currently, University of Bristol undergraduates do not receive formal ultrasound training. This study examines student response to a FAMUS (Focused Acute Medical Ultrasound)-based peripheral vascular access workshop and whether it impacts landmark-guided cannulation competency. The inclusion of applied practical ultrasound teaching into a modern medical curriculum would help graduates meet the UK General Medical Council's (GMC) Outcome 14b, whilst also affording a practical skill set for obtaining challenging venous access.

#### **Abstract - Method**

Volunteer final-year students were divided into two groups, using a crossover design to control for baseline difference and non-workshop performance improvement. Both groups were assessed using an OSCE (Objective Structured Clinical Examination) cannulation scheme. All students undertook a self-reported, visual-analogue-scored questionnaire rating vascular access confidence, ultrasound experience and training. One group then received theoretical and practical ultrasound training, culminating in an ultrasound-guided cannulation skills assessment. The questionnaire was then repeated. Cannulation will be re-assessed in both groups. Then the second group will receive the workshop and all observations repeated.

#### **Abstract - Results**

The preliminary results of the first group (n = 12) are presented. All students rated their course experience as good or very good and all agreed or strongly agreed that it met their expectations and learning needs. A two-tail paired T-test (t0.05,11 = 2.201) was used to compare student confidence before and after the workshop. The course significantly improved student confidence using an ultrasound machine, identifying anatomical structures and the needle tip on an ultrasound image, and performing ultrasound-guided peripheral venous cannulation. Interestingly, student confidence with landmark-guided cannulation also improved. Students fed back that the course was "really practical and I definitely feel more confident in ultrasound cannulation as a skill" and that it taught them an "invaluable skill... for patients needing cannulation with difficult veins".

#### **Abstract - Conclusions**

Initial results suggest that this ultrasound-guided cannulation pilot workshop is an effective, efficient method to teach practical ultrasound skills to undergraduates that we hope to incorporate into the final-year curriculum enhancing clinical skill competency. Despite concerns that teaching students ultrasound-guided cannulation may negatively impact landmark-guided cannulation, student confidence in the latter improved.

# Examining the Relationships between Work Environment and Stress Coping Mechanisms with Burnout in Medical Students

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### **Abstract - Objectives**

Throughout the duration of medical training, learners are overworked and oftentimes faced with immense levels of stress and pressure. Varying factors that accompany medical training, such as workload and obligations, can decrease quality of life for many individuals. The goal of this study was to gain an understanding of how work environments and stress coping mechanisms play a role in the amount of burnout experienced by medical students. It was hypothesized that the work environment surrounding medical training would be a better predictor of student susceptibility to burnout, than stress coping mechanisms would be.

#### Abstract - Method

Data was collected from medical students at the University of South Dakota Sanford School of Medicine by using: the validated Q12 survey by "The Gallup" to evaluate work environment perceptions, a question from the "Mini Z Burnout Survey" by the AMA to evaluate burnout, as well as a few general questions regarding the CDC's recommendations for a healthy lifestyle to evaluate general stress coping mechanisms. The survey consisted of 22 questions and was distributed using the Qualtrics survey platform to all medical cohorts at USD SSOM at the same time. The survey remained open until a 60% response rate was achieved from the student body. The results of the survey were analyzed by using 2 sample t-tests and ANOVA tests as appropriate.

### **Abstract - Results**

No statistically significant difference was found in total burnout ratings between the different cohorts of medical students. For certain questions, the response to the question was associated with a statistically significant difference in burnout rating. Specifically, the students who had healthier behaviors, such as following CDC recommendations on sleep, exercise, and fruit and vegetable consumption or practicing meditation and mindfulness, had lower levels of burnout compared to those who did not. Students who stated on the survey that they were experiencing burnout had a lower overall score on the survey, indicating higher levels of burnout.

## **Abstract - Conclusions**

Students can likely protect themselves from burnout by practicing healthy habits, such as sleeping and following CDC recommendations for healthy eating habits. Some medical students can recognize when they are burning out, so providing resources to help them incorporate healthier behaviors into their lifestyles may help aid burnout recovery. Finding effective ways to help students deal with stressors and develop coping mechanisms improves their own quality of life and can hence improve patient outcomes.

# A review of the implementation of Specialist Focus week in Surgery for Queens University medical students in the Belfast Trust

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Mr Stephen O'Neill, Consultant Transplant Surgeon and Clinical Director for Nephrology and Transplantation, Queens University Belfast

### **Abstract - Objectives**

Extreme variation exists in teaching and clinical exposure for medical students, both from specialty-to-specialty but also between universities. In addition to the variance in general in teaching for medical students, there is also a paucity in undergraduate teaching in surgery compared to medicine. There is mounting literature highlighting the need to reform and standardise surgical education to allow for unified graduate competency and ultimately optimal patient safety. In line with the recommendations from the General Medical Council (GMC) and the Royal College of Surgeons England (RCSE), Queens University Belfast (QUB) has significantly revised their undergraduate medical programme following a curriculum review. Within this new curriculum is the introduction of Specialty Focus week in Surgery within a Longitudinal Integrated Clerkship (LIC). This report reviews the processes used in the introduction of this week.

#### **Abstract - Method**

The initial curriculum was formulated with a weekly timetable consisting of tutorials, bedside teaching and students following a perioperative case. Feedback was collected via a QR code. We reviewed the first 200 students to leave feedback. Run charts were populated as continuous analysis with an alert when feedback dropped below a certain standard, which then triggered an intervention.

# **Abstract - Results**

Feedback run charts resulted in an alert when feedback dropped below 8/10. Following this we implemented subgrouping of students into smaller group bedside teaching. There was a significant improvement in feedback post intervention (P=0.04) with no further alerts. However, overall feedback had a non-significant feedback improvement post intervention (P=0.07) with once again, no further alerts. The ease of QR code lent itself well to collection of feedback and the high volume of student throughput lent itself well to process control.

# **Abstract - Conclusions**

Many institutions are attempting to correct this but it remains that most medical schools do not include all the curriculum set out by the GMC and RCSE. Therefore, students are not exciting medical skills with the required competencies. The feedback from the QR code allowed us to use alerts to identify when feedback dropped below an acceptable standard and therefore intervene quickly. This is seen as a meaningful strength of the programme as it prevents stagnation and allows dynamic interaction with the curriculum. The positive feedback from students suggests it is a student friendly curriculum. This review has shown how we have managed to provide some standardisation of local surgical teaching, as well as having a process centred model of monitoring. This curriculum is easy to implement and could be reproduced as necessary to standardise surgical teaching elsewhere.

# Co-designing with emerging health professionals and community members for asynchronous IPE

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### **Abstract - Objectives**

Best practice interprofessional education (IPE) often involves the opportunities for emerging health professionals (EHPs) to gather to learn with, from and about each other. Yet, IPE activities are often developed without theoretical basis (Shakhovskoy et al., 2022) or consumer and EHP input. Moreover, professional healthcare is increasingly offered in online formats or via settings in which interaction with other disciplines occurs asynchronously, or with limited overlap in time or place. IPE must be responsive to these workplace changes, providing opportunities for EHPs to gain skills that will facilitate asynchronous interprofessional collaborative practice (IPCP) in the workplace.

The present study aimed to engage students and community-dwelling healthcare beneficiaries to co-design asynchronous IPE (AIPE) activities aimed at developing asynchronous IPCP skills for the workforce.

#### **Abstract - Method**

Eight community members (CMs) aged 65+ who had interacted with at least three health professionals in the past year joined nine emerging health professionals (EHPs) from psychology, dietetics, occupational therapy and nursing to participate in two workshops held two weeks apart.

In the first workshop, students learned about IPCP competencies based on the Canadian Interprofessional Health Competency Framework, with CMs providing perspectives and observations from their interactions with the healthcare system. Three groups comprising 3 EHPs of different disciplines and 2-3 CMs were formed and set the task of developing educational materials for asynchronous use, targeting one or more of the CIHC framework competencies.

Groups collaborated asynchronously over the course of ten days, developing a learning activity to be shared with the whole cohort. Upon arrival in the second workshop, group artefacts were shared and discussed, with participants completing focus groups on their experiences of the program.

# **Abstract - Results**

Educational artefacts were varied, including dramatized roleplays, Al-developed case studies, and student-recorded videos addressing roles and scope of practice for peer-to-peer learning. Participants reported a range of outcomes in participating in the program, including that the program promoted collaboration, strengthened understanding, and changed the participants' future orientation. Additionally, participants reported appreciative practice in working with their groups but that they had new understanding from having experienced AIPE firsthand, along with noted opportunities for improvement to the program. The experience was reported to be valuable by EHPs and CMs alike, with the CM participants identifying that the workshops validated their experiences as healthcare system beneficiaries. EHPs reported that the program helped them to consolidate their theoretical learning as informed by the real-world examples provided by CMs.

## **Abstract - Conclusions**

The program developed for co-designed AIPE demonstrated a range of ways in which CMs and EHPs could be engaged to improve IPE in asynchronous settings, including regional or multi-campus universities, to prepare EHPs for asynchronous healthcare delivery, especially one which leverages technology. Participants provided insight into the risks of relying too heavily on technology, but further highlighted the need for advancing IPE in training programs. This study contributes to existing knowledge surrounding co-design methodologies in healthcare education. Future research may include the expansion of similar programs to aid EHP development and improve connections between tertiary training courses and communities.

# Increasing capacity to host medical students and improve medical student learning opportunities with single multidisciplinary team meetings

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## **Abstract - Objectives**

Background: Multidisciplinary team (MDT) members perform many of the clinical signoff competencies medical students need to gain. A partner university shared that many students had been unable to achieve their minimum number of clinical signoffs since the pandemic. They reported this was an issue for all their partner trusts who provided clinical placements for their students. Feedback from medical students and the university indicated this was occurring within our trust, raising concerns that future qualifying doctors could be less experienced on graduation.

Other student feedback reported that the MDT could prioritise students from other health disciplines over medical students for clinical exposure opportunities. Students also reported that the MDT did not appear aware of medical students' learning needs.

Proposal: The Undergraduate Medical Education Department hypothesised that inviting staff members to a voluntary meeting to discuss medical students' learning needs may provide an opportunity to increase awareness and facilitate discussion on how teams may provide medical students with opportunities for clinical signoffs.

Secondarily, due to a request from the partner university to host more students on clinical placement, the department hypothesised that speaking to teams could help to increase understanding of different teams' capacities to accept medical students while continuing to provide adequate learning opportunities.

#### **Abstract - Method**

Each team within the locality was contacted to ask if they would have availability for a lunch meeting. Teams were informed they would be provided with information regarding medical students' learning needs, given an opportunity to share any feedback, and ask any questions on how they may facilitate medical students. The invite was open to all MDT team members, including support staff, rather than restricting the invite to the medical team and leadership. To maximise the chances of as many MDT members attending as possible, and to allow flexibility around the team's clinical practices the meetings were scheduled at times agreed to suit each team. A lunch incentive was also offered to each team, taking dietary preferences into account.

The meetings were planned to consist of; imparting information regarding medical students learning needs, conducting a survey regarding the team's confidence in assisting medical students, providing an opportunity for the team to share their opinions and ask questions of the undergraduate department, and a final discussion on how many medical students could be facilitated within the team and still achieve their required clinical sign-offs.

At the end of each meeting, an e-mail summarising the content of the meeting was sent to each team and shared with the undergraduate department.

In response, the undergraduate team updated their clinical placement tracker to note how many students each team confirmed they could facilitate and for what time period. Feedback from students would be compared with previous years, as well as monitoring how many students achieved their required number of signs offs.

### **Abstract - Results**

Meeting outcomes: 100% of the contacted teams responded to the request to meet.

Five of the teams were able to hold a face to face meeting with the full MDT as planned, three meetings were held online with just the team's leadership, one team was unable to facilitate the meeting due to conflicting clinical pressures. For the meetings held online, we agreed that the Leadership team present would disseminate the information with the rest of their MDT. Two teams were unable to accommodate students due to long term staff absence, and so meeting arrangements were postponed until an ability to accommodate students resumed.

Few teams were willing to participate in the survey before imparting information regarding medical students' needs. However, the verbal feedback from the teams highlighted a state of uncertainty about how to support medical students in their educational goals; this was particularly common among non-medical members of the MDT.

After information sharing, teams expressed more confidence that they could support medical students. Which members of the MDT could facilitate medical student learning opportunities was discussed including how best to support medical students within their unique clinical environments.

Since the intervention, every student who has met the minimum attendance requirements has achieved the expected number of clinical sign offs.

Of the ten teams contacted at the outset, three accepted medical students, one accepted student for special interest days, four did not accept students, and two teams were impacted by staff absence and, therefore, unsuitable for medical student placements. After the intervention, six teams felt capable of accepting students and two teams felt capable of offering special interest days, with two of the teams that already accepted students increasing the number of students they would accept. This increased the overall number of clinical days able to be offered within the locality from 420 per year to 760 per year.

In 2022-23, ten instances of feedback indicated that the MDT was not confident in offering medical students opportunities to conduct supervised clinical assessments to gain their necessary clinical sign-offs. In 2023-24, just one instance of this type of feedback was received.

### **Abstract - Conclusions**

Reaching out to clinical teams improved the knowledge and understanding of medical student needs resulting in medical students having an improved clinical experience. It also successfully addressed the issue that medical students were not achieving their clinical competencies.

Further the intervention increased the trust's capacity to host students by 81%. These results raise the possibility that such meetings may increase the capacity of appropriate clinical environments to host medical students while improving opportunities for medical students to gain their necessary clinical competencies.

# How to ... navigate specialised foundation programmes for newly qualified doctors in medical education

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### **Short Paper**

### Abstract

Investing in specialised programmes for newly qualified doctors offers a strategic approach to shaping the future of health professions education internationally. These programmes create an early career pathway for aspiring clinical educators, scholars, and leaders. This paper explores the design and impact of a nationally funded specialised foundation programme (SFP) within the UK. Drawing on previous literature and the experiences of local trainees, we offer practical guidance for newly qualified SFP trainees navigating entry into the field of health professions education. We highlight the programme's value proposition, including academic opportunities and the challenges of balancing academia with clinical duties. This paper will be of local interest to newly qualified foundation doctors starting on an SFP in medical education and foundation programme leaders looking for a guide to navigate their new role in supporting early career educators and scholars. This paper also offers valuable insights for international stakeholders interested in establishing similar programmes for their own early career educators.

### Introduction

Internationally, fostering the next generation of medical educators is crucial. One strategic approach involves specialised programmes that equip newly qualified doctors with the necessary skills and knowledge to become clinical educators, scholars, and leaders. Whilst there have been many add-on programmes that provide on-the-job medical education skills for early career doctors, such as the residents as teachers programme and the clinician-educator tracks, there have been few centralised programmes with protected time for medical education. The exception is the United Kingdom.

The Specialised Foundation Programme (SFP), previously known as the Academic Foundation Programme, is a unique strand of the UK foundation programme, which provides newly qualified doctors (foundation trainees) dedicated time and opportunities to embark on academic pursuits in research, education, and leadership, alongside clinical competencies in their initial years of foundation training. The SFP in medical education (MedEd) typically provides four months of dedicated teaching time at a partnering educational institution, complemented by support and guidance for scholarly projects. The programme plays a crucial role in nurturing a pipeline of aspiring clinical educators, scholars, and leaders to address the expansion of the medical workforce constrained by a scarcity of clinical academic and teaching staff. Concerningly, there is a lack of tailored literature and guidance for newly qualified medical graduates transitioning into roles as educators and scholars in health professions education. This could lead to underutilisation of available resources and limitations in their growth. Additionally, the absence of concrete guidance can pose challenges for academic supervisors in effectively mentoring these trainees.

In this 'How to ...' paper, we address the primary challenges and offer practical strategies and guidance for navigating roles as educators and scholars within the SFP in medical education. Our insights are derived from a synthesis of existing literature and professional standards and a survey of doctors locally who have completed the SFP in medical education.

# Conclusion

The specialised foundation programme in medical education serves as a crucial platform for aspiring educators and scholars to shape the future of health professions education. This 'How to...' article provides practical guidance for newly qualified doctors embarking on the fulfilling journey of early-career education and scholarship and offers insights for international stakeholders interested in establishing similar programmes for their own early career educators. By adopting and adapting the principles and practices outlined in this article, we can effectively nurture a pipeline of future educators to address the growing demands for healthcare professionals while ensuring the sustainability and progression of health professions education worldwide.

# Unlocking the Specialised Foundation Programme (SFP): Providing the Keys to Clinical Academia through a National Teaching Series

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### **Abstract - Objectives**

The Specialised Foundation Programme (SFP) is a highly competitive strand of the foundation programme which provides protected time for doctors to develop research, medical education, and leadership skills alongside clinical practice. Concerns have been raised regarding access to preparatory resources by applicants and key stakeholders. We aimed to improve accessibility and transparency of the application through collaboration with SFP directors across different regions to offer guidance on the application process through a series of online webinars and workshops.

#### **Abstract - Method**

'SFP Unlocked: Keys to Clinical Academia', founded by SFP doctors, was established to support applicants, through bi-weekly online sessions over August-November 2023. SFP doctors facilitated sessions, alongside regional SFP directors. Pre- and post-session feedback surveys were disseminated to attendees.

# **Abstract - Results**

'SFP Unlocked' had 332 medical student attendees from >20 institutions globally. Session recordings accumulated 600 views, surmounting >10,000 minutes viewed. Feedback gathered Among 179 responses (54% response rate) were obtained. Knowledge regarding the application process significantly increased over sessions (pre-session median 3/5 [IQR:2-4]; post-session median 4/5 [IQR:4-5]; p<0.001). Additionally, students found the sessions highly engaging (median 5/5 [IQR:4-5]), and the session format received positive feedback (median 5/5 [IQR:4-5]). Content analysis revealed that participants appreciated the informative content, practical examples, personal insights, and valuable preparation for SFP applications. The innovative inclusion of SFP directors in the organisation and delivery allows for insights and advice from senior clinical academics' points of view, which adds value to the first-hand experiences shared by SFP doctors.

# **Abstract - Conclusions**

The 'SFP Unlocked' series was a nationally organised initiative which aided a wide range of students in preparing for the SFP application internationally. Our programme is the first to incorporate SFP directors alongside SFP doctors to provide a wide range of insights into the SFP. The teaching project not only fulfilled its objective of preparing medical students for the Foundation Programme application but also exemplified how innovative approaches and collaborative efforts can significantly enhance medical education.

# Skin Cancer Education in the Rural Massage Clinic

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# **Abstract - Objectives**

The rising rates of skin cancer incidents present an ongoing and escalating public health challenge worldwide. Prompt detection and intervention are paramount for optimizing patient outcomes and mitigating morbidity associated with this malignancy. However, rural communities face unique obstacles in achieving timely diagnosis and treatment due to diminishing presence of primary and specialty care physicians. Consequently, the scarcity of dermatological services underscores the imperative for innovative approaches to augment skin cancer detection in these underserved areas.

### **Abstract - Method**

Licensed Massage Therapists and students serving communities in South Dakota with populations under 25,000 participated in an educational intervention either through in-person visits or live online sessions facilitated by designated medical students. Prior to the presentation, participants completed pre-survey self-assessment to gauge baseline comfort levels in skin cancer prevention education, skin lesion detection, patient notification, and follow-up recommendations. The educational session consisted of a 30-40-minute presentation, followed by a post-presentation survey to evaluate immediate feedback and comprehension. Three months after the initial session, participants were invited to complete a final survey aimed at assessing the durability of the educational impact and its integration into practice of Licensed Massage Therapists.

#### **Abstract - Results**

Licensed Massage Therapists and student's self-assessed comfort with identifying suspicious skin lesions increased from pre-survey to post-survey along with an increased comfort in sharing skin prevention information with patrons. Licensed Massage Therapists also reported increased likelihood that they would alert patrons to suspected skin lesions and promote follow-up with a physician. After three months, participants continued to report increased comfort and rates of identifying and notifying patrons of suspicious skin lesions. Lastly, all but two participants reported either likely or extremely likely to recommend this course to other massage therapists.

# Abstract - Conclusions

Licensed Massage Therapists covet a unique role in healthcare, providing regular touch-based care to clients and often observing skin changes during sessions. These attributes allow Licensed Massage Therapists to serve as a bridge for skin cancer education in rural communities. Providing educational session geared towards Licensed Massage Therapists can increase their comfort regarding the ability to detect suspicious skin lesions, providing prevention education, and increase chances of timely detection and intervention to rural citizens.

# IPE Shared Mental Model vs. Groupthink

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### **Abstract - Objectives**

To improve patient safety, quality, and efficiency of patient care, healthcare is switching to team-based collaborative practice. Interprofessional education (IPE) is an activity in which learners from two or more professions learn about, with, and from each other. According to the contact theory, learning in the interprofessional teams improves understanding each team member's roles and team's common goals. Also, it reduces prejudice and improves relationships within the teams. Transactive Memory System (TMS) describes IPE from an individual perspective and has three components: (1) specialized prior knowledge, (2) team members' credibility, and (3) coordination of effective information retrieval and synthesis of new information. Developing shared mental model (SMM) which can be defined as shared understanding of elements relevant for the task is an overarching goal of IPE. Developing SMM is driven by interaction between transactive memory and metacognitive processes. While SMM is the goal of IPE, groupthink, which is defined as a psychological phenomenon that occurs within a group of people in which the desire for harmony or conformity in the group results in an irrational or dysfunctional decision-making outcome, has been observed in prior simulation activities. The presence of groupthink has resulted in decreased question scores, confidence ratings, and calibration. The purpose of this project was to adjust the IPE methodology to limit the effect of groupthink. Students were given a more thorough orientation that included information about convergence as well as a debriefing session that included a MD faculty member.

# **Abstract - Method**

This is a prospective study with pre- and post-test design. Medical, nursing, physical therapy, occupational therapy, and pharmacy students from the University of South Dakota (USD) and South Dakota State University in Sioux Falls, SD, USA, participated in this study with the total number of 200 participants. Learners in groups of 1 medical, 2 nursing, 1 physical or occupational therapy, and 1 pharmacy students practiced to round on an ICU patient with a stroke. Week before simulation, learners were provided with a patient chart to prepare for rounding.

Before and after simulation, students were assigned a set of MCQ SBA questions related to medical (MD), nursing (RN), pharmacy (PHARM), and occupational therapy (OT) fields. These questions, two from each profession developed by clinical experts, were presented to the 200 participants and focused on the care of a patient with acute ischemic stroke during their ICU stay. Debriefing on the case occurred after the second test. In this study, various factors were analyzed based on test data, including: (1) individual test item scores, (2) confidence judgment levels associated with test item responses, and (3) calibration or metacognitive accuracy. The analysis of pre- and post-simulation test data followed a specific protocol (Greengrass, 2023) with knowledge correctness values of +1 and -1, and confidence of their responses on the scale from 1 to 4. The calibration value was calculated as a product of knowledge correctness and assurance score.

# **Abstract - Results**

All groups had significant increases in confidence judgement ratings post-simulation for the total test (p<0.001). While there were no significant differences presented post-simulation in question scores or calibration for the total test, several of the professional groups did benefit from the simulation shown by an increase in question scores, confidence ratings, and calibration values.

# Abstract - Conclusions

The study highlights to importance of interprofessional education (IPE) in enhancing collaborative healthcare practice while addressing challenges such as groupthink within diverse student teams. By engaging learners from medical, nursing, occupational therapy, and pharmacy disciplines in simulated ICU rounds preceded knowledge of the effects of groupthink, improvements were observed in

individual test performance, confidence levels, and metacognitive accuracy following debriefing sessions. These outcomes underscore the value of fostering shared mental models (SMM) and effective team dynamics to optimize patient care quality and safety. Moving forward, continued efforts to refine IPE methodologies will be crucial for preparing healthcare professionals to navigate interdisciplinary teamwork and deliver comprehensive, patient-centered care.

# Students and teachers' perception of the impact of the test on student learning during assessment: A qualitative study

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### **Abstract - Objectives**

Introduction: It has been shown that assessment strongly affects students' performance. A deeper insight needs be gained into the interplay of assessment and learning. Conducted studies have shown that assessment can affect students' learning in the pre-assessment, during assessment and post-assessment period. In this regard, factors such as the type of assessment or high stake of the test can affect students' learning by influencing the students' study and learning approach before the assessment, and after assessment, usually through the feedback provided can affect students' learning. To our knowledge, the studies concerned with measuring the impact of assessment on further learning consider the impact of assessment on pre-test and post-test learning, and existing studies aiming at effect of assessment on learning during a test are scarce. Therefore, this study was conducted with the aim of investigating the factors affecting student learning during the assessment.

### **Abstract - Method**

This study used semi-structured interviews, focus group discussions, and observation and collection of field notes. An iterative purposive sampling technique was used to recruit participants according to their first-hand experience or expertise in assessment. A qualitative methodology by using the content analysis approach was used. The rigor and trustworthiness of the study findings was established by using, member check, peer check, expert check, prolonged engagement, and triangulation of data gathering were employed in the current study, in compliance with the criteria of Lincoln and Guba.

## **Abstract - Results**

Sixteen people (8 medical students, 7 faculty members,) were interviewed. One focus group discussion was held. The extracted concepts from our study were classified into three into three themes: test characteristics, interaction with peers and interaction with the

The findings were categorized into three themes: test characteristics, interaction with peers, and interaction with the assessor.

### 1. Test characteristics

The test through which the student is assessed at the test session and whether the student will be given time to answer the question or carry out the considered procedure can affect the student learning during the assessment.

### 1.1. Type of test

The experiences of participants (students and teachers) in the study showed that lack of proficiency in teachers to design a variety of assessments (designing highly specialized and complex questions or very simple multiple-choice questions). Also, design of clinical assessments suited to the level of undergraduate medical students, due to the provision of similar clinical situations, far better contribute to student learning compared to the assessments based on multiple-choice and essay-type tests during the assessment.

# 2.1 Duration of the test

The time allocated to the assessment session was another influential factor affecting learning during the student's assessment. Participants stated that lack of time to answer questions would increase student stress in the test session, distraction, and thus very little time for analysis to answer the question, and they will lack reasoning to achieve the right answer. In practical and clinical assessments, the limited time of assessment not only increases students' stress but also deprives them of the opportunity for reflection during the assessment session and as a result, learning will be disturbed during assessment.

### 2. Interaction with Peers

According to participants' experiences, interacting with peers during the test can help them learn during assessment. This category includes engagement with peers while on cheating during the test and group assessments.

# 2.1. Cheating

Experiences of students who cheated during the test showed that cheating in the test would help them remember the subject in the future due to the difficulty of finding a solution and the memories remaining in the minds of the cheating student at the test session. Of course, it should be noted that in most cases, students' experiences implied surface learning resulted from cheating as in the majority of cases, the correct answer remains in the mind without having to understand the cause. But in general, students expressed the positive impact of cheating on learning during the test.

### 2.2. Group assessment

A few experiences participants had regarding group assessment in some courses showed that group assessments have a positive impact on learning during assessment. In group assessments, the interactions among individuals in the group and the discussions on probable questions and answers as well as feedback provided through peers during the test help students to learn.

### 3. Interaction with assessors

The teacher-student interaction during the assessment in the form of guiding students and answering their questions and offering feedback to students during assessment also influence student learning while being assessed.

### 3.1. Assessor guidance

Some students who have experienced guidance on questions asked during the test of the assessor during the assessment indicated that the assessor's guidance during the assessment influenced their learning and enabled them to link between concepts through assessor's guidance during the test session in their minds. They stated that the assessor's proper explanation of the test questions would make the item questioned stay in their mind for a long time.

#### 3.2. Feedback

The feedback provided in practical exam, OSCE and clinical assessment is very helpful in students learning during the test. Although providing feedback during assessment takes during formative assessments, it has also been seen in some cases during summative assessments (if the student's response or performance is incorrect and corrected by the assessor, the student will not receive the point of that question). The experiences of teachers and students showed that the feedback during the assessment had a positive impact on student learning.

# **Abstract - Conclusions**

Test characteristics, interaction with peers and interaction with assessors during the assessment are the three factors affecting the students' learning during the assessment, which need to be taken into consideration to increase the educational impact during the assessment test. In addition, it seems that further studies in more various contexts are needed in this area.

# Innovation in care processes in primary care. The experience of using a simulator

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### **Short Paper**

In 2023, a program of innovation in care processes in primary care (Demand Management) will be designed and launched through the use of a virtual simulator. The purpose is to improve the health system through the redefinition and improvement of care processes referring to the Triple AIM: Improve the clinical result, the patient experience of the professional and do it in a sustainable way.

Material and method: Healthcare professionals, pedagogues and engineers have worked collaboratively to design a virtually simulated primary care healthcare centre.

A premise of process improvement is that you have to work and observe "where things happen" (what Lean calls Gemba). Through a gamified simulator of processes set in an ABS (basic primary care area) you can put into practice the different challenges that professionals have to face in this environment.

During the simulation, we place the participant in the role of a professional whose objective is to help the EAP to solve different problems, and interact with the professionals of the team who guide them. You have to manage agendas, demand, resources, and understand problems from different points of view. With this ecosystem, you travel through the content in a practical way, using the simulation to acquire knowledge through the transformation of concrete experience and subsequent reflections. Interacting and listening to the different roles promotes the ability to practice critical thinking and empathy.

It introduces us to learning about process innovation and understanding some of the main challenges we face in today's primary care environment. Each of the decisions gives feedback of theoretical knowledge. Improvement is reflected on individually and the exercise can be repeated to see the impact of different decisions. The added value of the evaluation of this course is the score obtained at the end of each module and is based on the skills of the participant to pass it and in a test at the end of each one the knowledge acquired is checked individually.

Results: A simulation program lasting 20 hours. A virtual space where you will find all the necessary interactive teaching materials, activities and evaluation questionnaires, as well as a set of tools that facilitate communication. The program has been completed by 500 professionals, valuing as the best element the plasticity and visualization of the reality of the simulator.

Conclusions: The new methodologies of operations management and continuous improvement applied to health (processes, lean, value-based healthcare) in the field of primary care, will allow us to promote a culture of transformation of organizations focused on the patient, improving clinical, safety and quality and efficiency results. With the use of simulators, real environments can be recreated where the participant tests and reflects on the impact of their management decisions.