Virtual Conference of Health Education and Research 2021

#INHWEOnline2021

Abstracts Book

Summary

3rd European Conference of Health Workforce Education & Research

We are very pleased to announce that the 3rd European Conference of Health Workforce Education & Research will take place virtually, online with the support of our hosts at the Royal College of Surgeons in Ireland on Thursday 7th and Friday 8th January 2021. The event will take place across multiple time zones (and be streamed live on YouTube) which will hope will enable many of our members to attend. Hosted in collaboration with the RCSI Faculty of Nursing & Midwifery, the International Network for Health Workforce Education holds the conference to promote interdisciplinary co-operation and critical understanding of the latest research in the field of health workforce education, research, training and development. The event will bring together researchers, educators, trainers and policy makers from around the world.

Virtual Conference Theme: Team Based Learning and Leadership

Leadership and Team Based Learning, the theme of the #INHWEOnline2021 Virtual Conference, are two of the most important topics for our members. Health professionals are dealing with constant changes to both the health systems they work in and the patients they serve. Equipping the health workforce with the skills to deal with this change is of the upmost importance for healthcare educators, researchers and policy makers. Leadership and collaborative practice are distinct but interrelated topics that are assisting health professionals adapt to their changing environment.

Leadership training for health professionals has been on the rise since the early 1990's when 'new public management' changed the opinion of policy makers and catapulted leadership skills to the top of the public-sector agenda. Rising financial and operational pressures to health systems in recent years have placed an ever increasing responsibility on all health professionals to conduct their activities with the wider health system in mind. Healthcare education has thus looked to increased leadership training as a way of equipping health professionals to deal with such pressures.

Team Based Learning (TBL) is a highly structured "flipped classroom" teaching method that solves common challenges encountered in healthcare education. TBL creates enquiring students, who are able to study information independently outside of the classroom and can then use that information to solve scientific or clinical problems with their colleagues, creatively. TBL helps students to take responsibility and be accountable for their own learning, to be able to explain key concepts, make a reasoned argument, and work well with others, including in an inter-professional setting. TBL as a method really can deliver all this and promotes collaborative practice when students enter the workforce.

Virtual Workshop

The use of virtual patients in Motivational Interviewing skill acquisition through self-preparation for team-based learning

Professor Adrian Schoo, Fellow of ANZAHPE, Prideaux Centre for Research in Health Professions Education, College of Medicine and Public Health, Flinders University

Dr Richard Leibbrandt, Research Development Assistant, College of Medicine and Public Health, Flinders University

Full Abstract

2020226

Research Champions: An interdisciplinary training programme to build research capacity

Mrs. Beth Baldock, Research Facilitator, Kent Community Health NHS Foundation Trust

Objectives

To implement a research education programme across professions within a community NHS Trust in collaboration with a local university to support frontline healthcare professionals who are looking to progress their own research ideas with dedicated, backfilled time. Working in a community trust and covering a large geographical area means contact with other professions or services can be limited. This programme gave clinicians the opportunity to work and learn collaboratively and support research development within the Trust as a whole. Due to the ageing population and the rise in co-morbidities, interdisciplinary working is vital for the care of patients and it is hoped that by bringing together different clinicians and different specialities that research will begin to follow the patient pathway and holistic care rather than be limited to an individual service or profession.

Method

Kent Community Health NHS Foundation Trust was awarded funds from Health Education England to develop research capacity within the Trust. Nurses, AHPs and practitioners within the organisation were lacking the experience and confidence to progress their own ideas. There were some good pockets of research activity but this was limited to specific areas. Many staff members were not even aware of the existence of the research team. It was therefore anticipated that this programme would help to grow and embed a research culture as well as focus on individual development and retention of clinical staff. Successful applicants were given 2 days a month, backfilled for a year, to work solely on their proposed project in addition to undertaking academic workshops at Canterbury Christ Church University. The programme was supported by the Deputy Chief Nurse and a Non-Executive Director which enabled the progress of the champions to be highlighted at a senior level, as well as discussions around how the champions could be supported after the programme to continue to develop their research skills.

Results

- Successfully recruited 11 applicants to the first cohort, many of whom were new names to the Research team.
- Applicants have engaged in a variety of events including the Research Interest Group, academic workshops, work experience opportunities with the university and Trust, academic supervision and clinical mentorship.
- They produced a poster abstract and write-up of their work at the end of the programme. Posters have been presented at the Trust Quality Conference and four were also submitted and accepted to national conferences.
- Two applicants have secured positions on the National Institute of Health Research Integrated Clinical Academic Programme. One Champion who had no academic experience, having qualified as a nurse prior to Diploma and Degree requirements has been accepted onto a Master's programme after submitting her write-up as an example of the work she can produce. Champions have also been involved in government papers and priority setting with the James Lind Alliance.
- One of the objectives was to improve retention of staff by giving them development opportunities. Six months after the end of the programme all were still employed in the trust, with one receiving a promotion with research being a priority within the new role.
- They have also involved other staff members in their work, fostering a growing research culture within the Trust. This has included presenting to their services and adding research as a running agenda item in team meetings.

- Line managers reported that the programme helped to raise awareness of the value and importance of research within teams and the majority stated they would be happy to encourage other team members to take part in the programme.

Conclusions

An evaluation of the programme showed that 100% of respondents felt more confident to make improvements to their practice and 71% have intentions to continue to develop their research skills.

Due to the success of the pilot further funding was awarded for a 2019/20 programme with recommendations and input from the previous cohort. Peer support was noted to be a positive element of the programme and to encourage this, new trainees are mentored by the previous champions to grow the network across the Trust and promote collaborative practice. For 2021 the programme is now accepting champions from other local organisations, including Local Authorities and NHS Trusts. This will further build on collaborative and interdisciplinary working across the region to share learning and transform care.

2020235

Interprofessional education: Creating a national interprofessional quality framework

Dr. Caroline Hills, Lecturer and Practice Education Coordinator, National University of Ireland, Galway

Dr. Sinead McMahon, Practice Education Co-ordinator, School of Public Health, Physiotherapy, and Sports Science, Bellfield Campus, University College Dublin

Dr. Annemarie Bennett, Assistant Professor in Dietetics, Department of Clinical Medicine Trinity Centre for Health Sciences St. James' Healthcare Campus, Dublin 8, Ireland

Dr Duana Quigley, PhD, Practice Education Co-ordinator, Department of Clinical Speech and Language Studies, Trinity College, the University of Dublin, Dublin 2

Aoife Hunter, Practice Education Co-ordinator, Occupational Science and Occupational Therapy, Cork Ground Floor, Brookfield Health Sciences Complex, College Road, University College Cork

Fiona Haughey, Practice Tutor, National Rehabilitation Hospital, Rochestown Avenue, Dun Laoghaire, Co Dublin

Objectives

Background: In Ireland, there has been growing numbers of university undergraduate and graduate entry programs for health and social care professionals. In response to this growth, and in recognition that all of these programs require clinical education/practice placements the Department of Health commissioned new programmes and funded new infrastructure following on from the recommendations from a workforce planning project, called the Bacon Report. A large number of posts across professions created a new infrastructure to support placements. Each post created was attached to one university and to one profession. This structure has resulted in significant commitment, innovation and research into practice education but mostly within singular professions. In addition, even with these posts in place the focus has been sourcing sufficient numbers of student placements rather than the quality of placements.

Objectives: This national project aimed to create a national interprofessional quality framework with an associated audit tool.

Method

Led by an interprofessional team there were three stages to this project. 1. A scoping review of quality placements across health and social professions 2. National consultation meetings with all stakeholders including managers, practice educators (clinicians) students and service users. Using the nominal group technique to gain consensus in answering the question “What is a quality placement”. Stage 3 involved the creation of the quality framework based on the findings of stage 1 and 2. Consensus on each standard in the framework was achieved using the Delphi method. The associated audit tool was then trialed for reliability.

Results

This presentation will provide detailed results of each of these three stages. The consultation stage involved sixteen meetings across Ireland with representatives from 11 health and social care professions.

Conclusions

The creation of a national interprofessional quality framework using robust research approaches is innovative and is one important step in the development of interprofessional education.

2021103

"Nothing becomes real 'till it is experienced" - exploring students, educators and senior nurses experiences and perceptions of leadership

Ms. Alison James, Senior Lecturer, Cardiff University

Objectives

What are students, educators and senior nurses experience of leadership and what is their perception of leadership preparation in pre-registration education?

The aims and objectives of this study were to review the evidence for leadership development in undergraduate nursing. To acquire an understanding of the perceptions and experiences of final year nursing students, educators and senior nurses of leadership, their expectations of leadership skills in nurses entering registration and effectiveness of preparation for the role of leadership.

Method

Narrative inquiry was chosen as a methodology applying Dewey's perception of experience as a constant and unceasing interaction of notions and personal, social and material situations (Clandinin and Rosiek 2007). Photographic images as symbolism and metaphors for leadership provided impetus to expand the narratives of experience (Reissman 2008). Semi structured interviews were recorded and transcribed. The narrative inquiry methodology and analysis of Clandinin and Connelly (2000) and Dewey's theory of Temporality, Sociality and Place was applied (Dewey 1958)..

Results

Experience of leadership can influence perceptions of leadership.

Tensions exist for students between expectations of leadership, defining leadership and associating experiences with a vision of leadership in the future role.

There is a perceived disconnect between the social and cultural experiences and contexts of learning.

Experiences of academics revealed juxtapositions between aligning experience of leadership with the education preparation of students and the experiences from clinical leadership, within the social constructs of dual professions and learning contexts.

Narrative inquiry and visual images was evocative in allowing emotional expression and metaphorical associations to be told, revealing the impact of experience on the cognitive processes of reflection and reasoning

Leadership was perceived to be important for nursing, both as a profession, to maintain quality of patient care and to drive for positive improvement. However, clarity in how to become or prepare for leadership roles was indistinct

The impact of emotional reasoning and reflexivity following experience of leadership influences the vision of self as leader. This was deemed an important finding as it shapes the view of students approach to leadership in the future.

Negative examples of leadership still pervade hierarchical social contexts within the profession.

Conclusions

Applying a narrative analysis framework based on Clandinin and Connelly (2000) and exploring a 'critical event' for each participant (Webster and Mortova 2007), an individual analysis of each participants' narrative and

common themes analysis was developed to convey the experience of leadership and perceptions of preparation for leadership from all participants.

This has led to a further understanding of leadership and contributes to the empirical knowledge within this area. It is acknowledged that some of the data and analysis reflects previous evidence, however there are also significant new contributions in the complexity of defining leadership at the level of student and newly qualified nurse, and the impact of interactions and social contexts of experience of leadership.

2021104

The use of television documentary review and group discussion for intercultural learning between nursing students in Glasgow and Singapore

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Dr. David Hunter, Lecturer, University of Glasgow

Dr. Dora Howes, Associate Professor, University of Glasgow Singapore

Objectives

The University of Glasgow delivers undergraduate nurse education to students in Scotland who study the Bachelor of Nursing (Honours) degree. In addition, the University of Glasgow Singapore, offers a two-year Bachelor of Science (Honours) top-up degree for Singaporean Registered Nurses who hold a diploma. In normal circumstances, our Singapore students would visit Glasgow for a four week Overseas Immersion Programme each July. Due to COVID19, this was not possible in 2020. Simultaneously, our 1st year Glasgow students were unable to attend practice placements so were receiving some of their 2nd year theoretical content early.

Both student groups were covering materials relating to social policy. The impact of COVID19 provided us with an opportunity to deliver live joint sessions with students in Glasgow and Singapore.

Method

Both student groups (approx. 130 students) were asked to view a BBC documentary called "The people vs. the NHS: who gets the drugs?" which focused on access to PReP for HIV prophylaxis. They were provided with guidance on how to view the documentary and how to make notes. At a set time, students were then brought together online and split into breakout rooms which consisted of a mixture of Glasgow and Singapore students and a facilitator. A number of discussion questions were provided followed by a brief summary with the whole group at the end. Feedback was gathered via a questionnaire hosted on SurveyMonkey.

Results

Generally, the feedback from students was positive with them finding the session both helpful and enjoyable. Students reported the benefits of sharing their experiences with colleagues from each other's location. Issues around small technical problems, initial interaction at the start of the group and the time difference (Glasgow students had to start the session at 8am) were also provided in the feedback.

Conclusions

Overall, we feel that this session was beneficial to both sets of students. It allowed intercultural exploration of different health care systems and around a sensitive issue regarding how these systems allocate their resources. Students enjoyed the social aspect of the interaction as well as the educational benefit. This is something we will strive to continue in the future.

2021106

Heart Auscultation Trainer: Development and Deployment of an Innovative Learning Tool for Medical Students During the COVID-19 Pandemic

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Dr. Valeriy Kozmenko, Director of Clinical Skills and Simulation Center, University of South Dakota Sanford School of Medicine

Objectives

Simulation-based learning is a valuable adjunct in medical education. As a response to the COVID-19 pandemic, efforts to develop Distributed Screen-Based HFS (DSB-HFS) have accelerated in order to provide enhanced remote learning. The authors set out to develop cost-efficient, high fidelity, user-friendly software to assist medical students in developing cardiac auscultation skills and clinical reasoning. Heart Auscultation Trainer (HAT) is one part of a comprehensive medical education software package developed at the University of South Dakota Sanford School of Medicine. Previous to 2020, second year medical students used Self-Assessment Manikins (SAMs) only; HAT was made available in 2020 and SAMs continued to be available to students, albeit only on 3 separate occasions.

Method

Several critical features were considered while developing HAT: effectiveness as a teaching tool either in-person or remotely, cross-platform usability, cost efficiency, high level of fidelity, simplicity and ease of use, and ability to be distributed over the internet and over firewalls. Two versions of HAT were developed, one compatible with Macintosh operating systems, and one compatible with Windows operating systems. The two programs were uploaded to a cloud-based data sharing system and medical students received instructions over email on downloading either version of HAT. This software did not require the purchase of any software or hardware that students did not already have access to, so the cost to create and use HAT was minimal. An installation video tutorial has been created.

HAT features an on-screen model representing the human torso. Users are able to select any of 52 heart sounds and then hover their mouse over four cardiac auscultation points to hear the sound as if listened to with a stethoscope placed at the respective area. A button designed as a question mark brings up a second panel (Lesson) that describes the heart sound and explains clinical relevance. Lessons were developed with the aid of clinical faculty and most are accompanied by sonograms. A built-in rudimentary Test function requires two users, but allows medical students to listen and identify a pre-selected heart sound before revealing the answer. Effectiveness, simplicity/ease of use, and cross-platform usability were assessed via survey distributed by email; results are presented and discussed below.

Results

The 11-question survey was distributed to 70 second year medical students and 57 responded (81.4%). (1) 98.25% of students used HAT during the cardiovascular educational block vs 1.75% that did not use it. (2) 66.67% used HAT on Windows operating system, 28.07% on Macintosh operating system, and 5.26% used HAT on both operating systems. (3) 50.88% of students used HAT 1 or fewer times per week, 43.86% used HAT 2-5 times per week, and 5.26% used HAT more than 5 times per week. (4) 56.14% of students found the process of installing HAT on their computer very easy, 36.84% found it easy, 7.02% found it difficult, and no student found it very difficult. (5) In terms of the Graphic User Interface, 35.09% found it self-explanatory, 56.14% found it required little effort, 8.77% found it confusing at times, and none reported having a hard time learning how to use HAT. (6) When comparing the quality of heart sounds in HAT to SAMs, 12.28% found HAT sounds to be of much higher

quality, 7.02% somewhat higher, 42.11% equal quality, 36.84% somewhat lower, and 1.75% found the quality of HAT sounds to be much lower than that of SAMs. (7) Built in lessons were found to be very useful by 28.07% of students, somewhat useful by 24.56%, and 47.37% of students reported not using the built-in lessons. (8) The Test function was found to be very useful by 14.04% of students, somewhat useful by 8.77%, marginally useful by 10.53%, 1.75% completely useless; 64.91% of students did not use the Test function. (9) HAT was found to be very useful in learning heart auscultation by 63.16% of students, somewhat useful by 33.33%, of limited use by 3.51%, and none found it completely useless. (10) 66.67% of students reported that they are very likely to recommend HAT to future medical students for learning heart auscultation, 33.33% reported that they are somewhat likely to recommend it, and none reported being somewhat unlikely or very unlikely to recommend it. Question (11) asked students to submit narrative recommendations for changes to HAT. 28 students skipped this question and 10 students did not have any recommendations to suggest. 2 students recommended improved sonograms, 1 student recommended organizing the list of sounds, 1 student recommended being able to open Lessons directly from the Test mode, 9 students recommended a self-test mode, 7 students recommended improving heart sounds, 2 students recommended making auscultation areas always visible, 1 student recommended the search function for the list of sounds, and 1 student recommended including a video tutorial for installing HAT.

Conclusions

Heart Auscultation Trainer was a successful and inexpensive addition to the remote learning software package available to medical students at the University of South Dakota Sanford School of Medicine. HAT was perceived to be an effective learning tool, easy to install on both Windows and Macintosh operating systems, and easy to use. Survey responses suggest that HAT is non-inferior to SAMs for learning cardiac auscultation. HAT will continue to be made available to medical students in the future. The local Technology Transfer Office is considering commercialization, open-source, and free options. User-generated feedback will be implemented to improve HAT, with prompt attention to the inclusion a Self-Test mode, improvement of the quality of sound samples, and improvement of sonograms. An important limitation to this project is a lack of quantitative data. Versions of HAT compatible with both Linux and Rasberry Pi are currently available.

2021107

Medical Students As Simulation Educators: a curricular program with aims to enhance inclusiveness, interprofessional team dynamics, patient's safety and satisfaction

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Short Paper

BACKGROUND

Teaching has always been one of the implied physician's responsibilities as they are expected to educate their patients with various backgrounds. How well the patient education was delivered influence patient compliance and satisfaction. Over the last decades, healthcare has become more advanced technologically and has transitioned from the individual to a team-based form of practice. This made the need for effectively learning new skills and be able to educate others to them vital. There have been several communication techniques and protocols developed to make team dynamics more effective and patient care safer and more efficient. Even though centuries of experience and wisdom of how to teach effectively are available, healthcare providers in the United States have not been formally taught on how to effectively educate peers and patients. Many healthcare providers use intuition and personal experience to guide patient education interactions since seeking well-known techniques and methods can be time and effort consuming.

HYPOTHESIS/GOAL

The University of South Dakota Sanford School of Medicine (USD SSOM) has developed and implemented the Medical Students As Simulation Educators (MSASE) elective course for medical students to enhance their ability to teach as well as learn from peers and patients and to improve patient's safety. The course has been designed to provide a strong theoretical foundation and extensive practice with teaching so that the skills are internalized and become a part of students' knowledge base and educational beliefs.

METHODS

The course consists of two main parts: didactic and practical implementation. The didactic part includes the following teaching modules:

1. history of simulation-based education

2. learning theories

3. simulation modalities

4. debriefing and feedback

5. developing learning objectives and content for teaching

6. teaching methods used in simulation

7. essentials of curriculum development

8. assessment and evaluation

9. essentials of operating a high-fidelity simulator

Each didactic module is concluded with a ten multiple choice question quizzes (MCQ). Completion of all quizzes is a required pre-requisite for participation in teaching sessions.

The USD SSOM four-year curriculum consists of three Pillars.

Pillar 1 (18 months) – basic science and the foundations of clinical practice

Pillar 2 (12 months) – longitudinal integrated clerkship (LIC) with clinical rotations

Pillar 3 (18 months) – clinical rotations, elective courses, residency preparation programs.

Pillar 2 and Pillar 3 medical students were provided with the following teaching opportunities:

Pillar 1

Patient-Based Learning (PBL) and small-group sessions (Pillar 2 and Pillar 3 student-educators)

High-fidelity simulation for cardiovascular, renal, and pulmonary blocks (Pillar 2 and Pillar 3 student-educators)

Airway Management Course (Pillar 2 and Pillar 3 student-educators)

Interprofessional educational (IPE) activity for nursing and physician assistant programs (Pillar 2 and Pillar 3 student-educators)

Pillar 2

High-fidelity simulation (Pillar 3 student-educators)

Clinical skills (Pillar 3 student-educators)

In preparation for each simulation activity, student-educators reviewed current literature and guidelines pertinent to the scenario, familiarized themselves with the MCQ questions used to test trainees' knowledge before and after the simulation, and reviewed the teaching plan and supplemental materials. A typical simulation encounter lasted 15-20 minutes followed by a debriefing session. The first round of teaching is provided by faculty and observed by student-educators. The debriefing was conducted in the form of the facilitated discussion aimed to identify learners' reasoning patterns, positively reinforce correct decisions, and trigger discussions among the learners to correct misconceptions. Additionally, the debriefing helped to ensure all learning objectives were achieved. The same MCQ was used before and after the simulation to assess the quality of teaching and learning and all learners completed a satisfaction survey at the end of the training day.

RESULTS

There were 14 student-educators who participated in the MSASE program from February 2020 till October 2020. During this time the learners' satisfaction survey demonstrated a high level of student satisfaction from being taught by senior medical students. Analysis of the pre and post-activity MCQ results has shown learning objectives were met equally whether simulations were led by clinical faculty or student-educators. Learners also endorsed that being taught by senior medical students provided them with a role model to follow and set a goal for them to achieve. Observing senior medical students in their teaching roles reduced learner reported levels of anxiety about the remaining parts of the medical school curriculum.

DISCUSSION

After completing a full day of simulation-based teaching, MSASE coordinators met with student-educators to discuss their teaching experiences. There have been several patterns in performing teaching identified including warming factor. As expected, the first round of teaching was accompanied by an elevated level of performance anxiety and lower levels of self-confidence. With subsequent rounds of teaching, the anxiety and confidence levels stabilized to normal levels. At some point, student-educators started demonstrating the effects of emotional and cognitive fatigue that expressed itself as difficulty to keep track of the discussion points and

several debriefing sessions mentally blending into one. Interestingly, more experienced educators were better able to maintain steady teaching patterns under higher production pressure than their less experienced peers. This confirms previous study results of the relationship between pressure and production.

At the end of the simulation activity, a debriefing session with student-educators was conducted. One of the questions of the discussion was how useful the didactic modules were in preparation for teaching activities. There has been an interesting phenomenon identified: senior students had a better appreciation of the didactic modules than their junior peers. This confirmed that teaching is a skill that itself goes through the evolutionary cycle:

1. Passive observation

2. Imitation

3. Analysis and abstraction

4. Developing new concepts

5. Testing the concepts in practice

Some Pillar 2 student-educators mentioned that observing clinical faculty conducting debriefing was the best model for them to follow. Pillar 3 students commented that clinical faculty example of the debriefing gave them a starting point in their analysis of how teaching was supposed to be conducted. They were able to translate exact experiences of the faculty's teaching into the generalized concepts and ideas that were further processed and then implemented with personal variations. Based on these observations, we concluded that programs like MSASE need to have a long enough duration so that the student-educators complete the entire learning cycle from passive observation to analysis and abstraction followed by testing the hypothesis in practice.

CONCLUSION

Teaching is an important skill that can enhance patient-doctor communication and relationship, interprofessional team dynamics and correspondently improve patient's safety and satisfaction. Some people are born with talents to teach, still the rest of us can be taught how to teach on par with our talented peers. Presenting educators with the educational theories and advanced techniques that have been developed up to date and providing them with opportunities to practice teaching will give valuable skills to every healthcare provider that will make their work safer and more effective. The importance of teaching and effective learning skills grows exponentially as more interprofessional healthcare teams include members with a variety of cultural backgrounds.

2021108

IPE Curriculum development, design, implementation and integration into an existing curriculum

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Objectives

Background: Modern healthcare has been shifting to the team-based patient care which requires team members to have effective communication skills and knowledge of scopes of practice and professional responsibilities of the other healthcare providers. Learning these skills at the point of healthcare can compromise patient safety, so it gave rise to the interprofessional education (IPE) in the academic programs. Similarly to other courses, IPE requires careful curricular design and integration into the existing curricula. While curriculum and instructional design have well-tested and long-time established principles, having more than one healthcare academic program involved makes IPE curriculum design even more complex. According to the WHO definition, IPE is an activity where learners from two or more healthcare professions learn with and from each other. To meet the criteria and engage participants in teaching each other and learning from each other, IPE must be based on the engaging teaching methods. Simulation is one of them. Many principles of the simulation-based curriculum design are applicable to IPE. At the same time, there are unique IPE concepts that require special attention.

Goal: Describe the process of IPE curriculum design, development, implementation, and integration.

Method

Any curriculum design starts with the needs assessment which can be done in several ways. Curriculum mapping and identification of gaps and redundancies is one of the methods. This method is one of the task analysis methods that is widely used in the instructional design. The main purpose of the curriculum mapping is to perform an extensive analysis of the content of the existing curriculum. Curriculum mapping cannot answer if the learning objectives are achieved though. To assess the outcomes, a different task analysis method is used, it is called outcome analysis. Outcome analysis uses competencies assessment, exit surveys, and post-graduation follow-up surveys that assess if graduates are meeting the practical healthcare expectations. After the desired outcomes are identified, process analysis of the existing curriculum needs to be performed. Process analysis analyzes each educational activity not as a separate teaching and learning event but as an organic component of the entire curriculum. Process analysis identifies each activity's pre-requisites, learning objectives, and teaching methods. One of the fundamental principles of process analysis states that each educational activity sets the foundation for the next one and requires its successful completion. Since IPE involves more than one educational program, these and some other task analysis methods need to be applied to identify educational needs of each program participating in IPE.

Next step in the IPE curriculum design is to identify its learning objectives and to develop an instrument to measure that the learning objectives are achieved. Briefly, learning objectives are the focus items that the educators set for themselves to teach. They are educator-focused and define what teaching will be about. The assessment tool needs to be designed to measure what learners learned. So, they are learner-focused, and measure what learners have actually learned. Defining learning objectives and developing the assessment instrument needs to be done prior to the content development.

After the learning objectives are defined and an assessment instrument is developed, the content of the curriculum needs to be created. The role of the content is to create an operational framework for achieving the learning objectives. As it has been mentioned before, it is critically important to identify pre-requisites for each

activity and ensure horizontal and vertical integration of the material. Horizontal integration is consistency between the subjects during a given part of the curriculum. For example, educational activities during cardiovascular and respiratory blocks of the medical school basic science curriculum should share the same fundamental principles. Vertical integration is consistency between different parts of the given healthcare curriculum. For example, Objective Structured Clinical Examinations (OSCE) performed during the basic science years and during clinical rotations should be based on the same fundamental principles. This will ensure that learners perceive the curriculum as a continuum rather several unrelated parts. Applying this principle to IPE, the curricular content needs to be based on the learners' needs in given period of their program's curriculum, all pre-requisites need to be met, and the activities scheduled in the appropriate sequence where each activity's achievement is reinforced by the following ones. Ideally, this step should be followed by a pilot implementation but it is not always possible. Often, the curriculum proceeds with the implementation. After the first round of implementing the curriculum, it needs to be subjected to the extensive task analysis using the same methods as during the educational needs analysis. The following questions need to be asked and answered:

1. Has the curriculum achieved its goals? Have the learning objectives been met?

2. Have any other educational needs been identified? Are they new or they were overlooked during the initial needs assessment?

3. If curriculum failed to achieve some learning objectives, what was the exact cause of the failure?

a. Was it because the learning objective was incorrectly defined?

b. What it because the assessment instrument was faulty and did not measure what it was expected to measure?

c. Was the content inappropriate and did not support the learning objective?

d. Were the learning objective, assessment tool, and the content appropriate but the implementation was faulty? Was the sequence of the teaching activities wrong? Pre-requisites have not been met?

4. Which parts of the IPE curriculum were successful and need to be kept, and which parts of the curriculum need to be revised? How will suggested changes affect those parts of the curriculum that achieved their goals?

5. If the teaching took place but the learning did not occur, what was the cause?

IPE curriculum integration is a big challenge because all participating programs have different requirements from the corresponding accreditation bodies, and they all must be met by the same curriculum. To meet these criteria the IPE curriculum development team need have outstanding team-work and communication skills themselves. If the IPE educators share the same mental model and demonstrate effective communication skills, their attitude to IPE becomes instilled into their learners and contributes to the program's success.

Based on these principles, the University of South Dakota has developed and implemented an interprofessional curriculum for healthcare students called "ICU interprofessional simulation-based bedside rounding" which involved medical, nursing, pharmacy, physical therapy, and occupational therapy students.

Results

Needs assessment for IPE curriculum was performed by distributing an online survey to professional healthcare students in nursing, physician assistant, medical doctorate, and physical therapy/occupational therapy. The survey was a 29-item Academic Interprofessional Education Attitude Scale (AIEAS) scored on a 4-point Likert scale. This survey found positive attitudes for readiness towards starting IPE were highest for early or late implementation within a program's curricula. Implementation in the middle suggested to be counterproductive. The knowledge gained from this survey was utilized to design an IPE program for healthcare students nearing the end of their curriculum.

The learning objectives of the program were for the students to be able:

1. At the patient's bed side, address all clinical aspects his or her care in the ICU

2. Educate other specialties about the main concepts of decision making within the scope of their practice and items of importance that affect their decision making

3. Learn from the other specialties about their scopes of practice and their use as an ICU resource

4. Establish rapport with the students from other health care programs

5. Develop effective communication skills that include shared mental model, closed loop communication, flattened hierarchy, anticipatory response etc.

In order to assess student IPE and clinical competencies, a simulated intensive care unit (ICU) IPE course was developed utilizing the insights of the IPE curriculum development team and the survey-based assessment of IPE readiness. This course included students from programs in medicine, pharmacy, nursing, and other medical specialties working in a simulated ICU environment to develop a patient care plan and summarize the patient's current condition. This course utilized an electronic medical record (EMR) system that was developed in house. Hybrid simulation modality has been chosen as a teaching tool. It used both live standardized patients and a high-fidelity simulators, the Laerdal SimMan 3G. Students' IPE competencies were assessed by other students, the standardized patient, and clinical faculty. The clinical faculty also assessed the students' clinical competencies. This program was implemented in the 4th and final year of the medical student curriculum, congruent with the results obtained from the IPE readiness survey. One of the future goals is to expand this course to multiple campuses to reduce the students' needs for traveling as well as to develop more clinical cases for the program. While progress was made towards these aims, they are presently interrupted by the ongoing pandemic.

The results from the simulated ICU IPE course indicated that students performed well in the IPE areas of learning, team skills, teaching, and attitude. The "attitude" portion was assessed mainly using a satisfaction survey, in which the students rated the program 4.54/5 on average, indicating high satisfaction with the course.

Feedback from the participants has confirmed the survey findings that conducting similar activities in the beginning of the programs' curricula would be beneficial for the students because it will build a foundation and help to raise and maintain interest in the interprofessional education. The participants commented that because an opportunity of early introduction into the IPE has been missed and their educational focus during the middle of the program's curriculum shifted toward individual competencies, conducting IPE during the middle of the program's curriculum would be counter-productive.

During the IPE curriculum, it has been discovered that healthcare providers and patients have different expectations from the providers and different perception of the success or failure. Since according to the current health care standards, patients are considered members of the interprofessional teams, this discovery has identified new learning objectives for the next iteration of the IPE curriculum that include patient education and educating health care providers on the effective methods of obtaining patient's insight of the clinical situations.

Conclusions

Curriculum design is a challenging process, IPE curriculum design is even more difficult due to the logistics of the multitude of programs involved. Challenging areas include coordinating program's schedules, meeting individual program accreditation requirements, ensuring a proper teaching method is utilized and learning objectives are met. Although this process proves to be difficult it is rewarding once a successful curriculum has been designed. The ICU IPE course's initial implementation proved to be successful with the task analysis showing good performance scores in IPE learning and team skills, and a positive attitude assessment. The findings gathered are currently helping refine the IPE curriculum for the activity's second iteration. For continuation of a successful curriculum the perpetuation of implementation then evaluation is critical. Continued re-evaluation of the learning objectives, teaching and assessment methods will insure a successful course.

2021109

Multi-institutional Virtual IPE (VIPE)

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Dr. Andrew Wiss, Director of Online Learning, George Washington University

Objectives

1. Learn how to create synchronous content for a virtual IPE (VIPE) symposium utilizing web-based video conferencing tools and chats

2. Learn how to develop asynchronous content for a virtual IPE (VIPE) symposium using a learning management system to incorporate videos, scripts, and multi-media interviews.

3. Analyze the roles/responsibilities/contributions of a multi-disciplinary VIPE committee to create a virtual IPE symposium.

Method

Faculty facilitators using synchronous online classrooms facilitated small group break-out sessions of 10-15 students each. In preparation for the synchronous break out group sessions, students were instructed to view materials (asynchronous materials) and videos that included a text-based case vignette, video case vignette and information about each of the health professions' roles and responsibilities that would be collaborating in breakout sessions. The synchronous IPE event began with faculty providing this group of 180 students with an introduction to the casework they would be engaging in with their breakout groups. Students then worked in small groups for a period of 90 minutes, addressing various case-specific questions posed by their faculty facilitator. These break-out sessions were then followed by once again assembling all faculty and students back together to share key takeaways and plans of action devised by each group. All students were invited to complete pre/post-interprofessional assessment questionnaires and pre/post-test interprofessional education questionnaires that assessed their interprofessional knowledge before and after the training. We also utilized the Interprofessional Attitudes Scale (IPAS) and Interprofessional Collaborative Competencies Attainment Survey (ICCAS) . IPAS consists of 27 items in 5 sub-scales, which we have called "Teamwork, Roles, and Responsibilities", "Patient-¬- Centeredness", "Interprofessional Biases", "Diversity & Ethics", and "Community-¬- Centeredness".

Results

Pre/Post Survey about Professional Roles/Responsibilities: showed significantly more participants rated very well to extremely well in their knowledge of the roles and responsibilities of all 7 professions (increased in range of 24.6% to 47.5%, the McNemar's test statistic S ranged from 24.03 to 50.58, $p<.0001$) (N= 118) Pre/Post Assessment interprofessional Scenario Questions: significantly improved healthcare profession student total knowledge score about interprofessional care ($p<.0001$) (N=117). IPAS, ICCAS and subjective feedback from the students all showed significantly significant positive results.

Conclusions

Experiential education and training in virtual contexts can be used to prepare healthcare students. Virtual education and exercises that promote knowledge about the interprofessional team, the role of each health professional, how the team communicates and collaborates with the patient and team during the episode of care and across treatment settings and the specifics of assessment, formulation of the problem/diagnosis, goals of care and treatment planning, interprofessional interventions and coordination of services across the continuum of care.

2021112

Training standardized patients to provide effective feedback: development, implementation and its effect on the efficacy of medical students' education

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Mrs. Julie Swenson, NRP, University of South Dakota

Objectives

Deliberate practice is one of the pinnacles of healthcare education and training. Deliberate practice refers to a special type of practice that is purposeful and systematic and whose goal is achieving mastery of a given skill or competency. Without positive and constructive feedback learners would lack guidance for improving, thus, deliberate practice would not be possible. Feedback must be descriptive, timely, and relevant. During the last decade, healthcare has shifted to the interprofessional team-based approach to patient care, and patients are considered team members. Healthcare education in the United States spends much time and effort to ensure its graduates are competent in communicating with patients and performing physical exam in a respectful manner. These skills are tested during institutional high-stakes Objective Structured Clinical Examinations (OSCE) and at the United States License Examination (USMLE) STEP 2 Clinical Skills (CS) national board exams. According to the deliberate practice principle, it is imperative to provide medical students with quality feedback so that they can achieve mastery. Most of the medical schools in the United States have Standardized Patient (SP) programs. By definition, an SP is a layperson trained by script to simulate a given medical condition. Healthcare students practice taking medical history and performing physical exam via interacting with SPs. SPs are considered co-educators with clinical faculty. The quality of the feedback that SPs provide affects the quality of students' learning.

Hypothesis: To assure quality and standardized method of delivering feedback as the Standardized Patient's title suggest, standardized training for the SP regarding how to give feedback must be provided. Training SPs to provide quality feedback enhances medical students' learning patient-focused communication and physical exam skills. Additionally, the project investigates for confounding factors that affect the quality of SP performance in providing written and oral feedback.

Method

Invitation to participate in the training has been sent to all SPs in our database. 43 SPs expressed interest in the training and enrolled. Each training session was conducted in-person while observing social distancing and using personal protective equipment (PPE) to comply with COVID19 precautions. Prior to the training day and on the day of training, all SPs were screened for COVID19 symptoms via a web-based questionnaire. Only symptom-free SPs were allowed to attend the training. From July 2020 till October 2020, there are have been 9 two-hour SP-training sessions conducted. Each training group consisted of the SP educator and 2-10 participants. Prior to the activity, each SP completed a multiple-choice quiz (MCQ) that tested SP's expectations from the workshop along with attitudes and knowledge regarding how to give feedback. The workshop was conducted as a media-enhanced interactive guided discussion. During each activity, the material was presented by the same SP educator and on several occasions by a medical student as his Scholarship Pathway Program project. The training provided clear definitions of the main principles of giving feedback and supplemented by many illustrations. Participants of the workshop had an adequate number of opportunities to practice giving feedback and to obtain feedback on their performances. The workshop covered written and oral feedback. Immediately after the activity, participants completed post-activity attitude/knowledge MCQ and satisfaction surveys. 43 SPs have been trained for the period from July 1st, 2020, until October 1st, 2020.

After completing the training, over the course of several weeks, the SP participated in a series of simulation activities that required written feedback to the learners. Each feedback form completed by the SP has been graded with a specifically designed 10-item rubric and collected data has been entered into the database. Data continues being collected as the curriculum progresses. Once data collection is complete, the following factors that might confound the quality of SP's feedback will be investigated:

1. Are all the feedback-related skills equally easy or difficult to acquire and master?

2. How quickly is mastery in giving feedback achieved?

3. Are there any apparent trends that might influence feedback skills acquisition such as educational background, prior team training, occupation, etc.?

4. Are there warming up and fatigue effects in giving feedback?

5. Is there a correlation between oral and written feedback? Which one is more prone to stereotypical or non-constructive statements such as "Good job, keep doing what you are doing!"

6. Over the course of several years after establishing the SP training, we will be monitoring if the rate at which medical students learn various skills that depend on the quality of the feedback from the SPs is accelerating and mastery is achieved sooner. This will be a challenging task since the SP pool is not consistent.

Results

At the time of submitting the proposal, we have available the data from pre- and post-workshop MCQ from 43 Standardized Patients. The data are currently being analyzed and will be available at the time of presentation. Quality of the SP feedback data are still being collected. Based on our observations of SP performances during high-stakes and practice OSCEs, the following results are expected:

1. Quality of the feedback improves. We will grade written feedback obtained during high-stakes OSCE from the prior 3-4 years and from this year's practice and high-stakes OSCE.

2. There is a warming-up effect. Starting from the second encounter, there is a consistent quality of the feedback until the fatigue develops.

3. Warming-up effect is more specific for oral feedback than to written feedback.

4. Fatigue effect occurs earlier with written feedback than with oral.

5. Not all feedback giving skills are equal in mastery.

6. Regardless of the same training, there will be variability among the SPs in how the feedback is given reflecting on the differences in personality, background, and education.

Conclusions

We believe that collected data will allow us to conclude that standardized training for SPs regarding how to provide quality feedback to the learners enhances quality and consistency of SP performances which results in more efficient student training.

2021114

Afri-VIPE a multi-country Virtual Interprofessional Educational Experience

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Short Paper

The researchers attached to this study all met at the second International Interprofessional Conference which was held in Nairobi, Kenya in July 2019. Through informal discussions they realised that they all share the same challenges with regard to implementing successful in-person IPE activities. The challenges experienced by almost everyone were co-ordinating student schedules, physical space, logistical arrangements and academic (faculty) staff time. It was also expressed that the health and social science students are not always clear about their professional roles and responsibilities as well as that of the other health and social care professionals. Academics from Africa were invited to join a Virtual IPE Committee comprising six universities in the USA to form the Afri-VIPE committee so that they could collaboratively explore the feasibility of an international virtual IPE activity to establish whether health and social science students globally, could learn with, from and about each other about their professional roles and responsibilities. The researchers were of the opinion that the use of online technologies could assist in overcoming the current barriers experienced.

350 students have signed up for the 26th of October event. The students will be provided with asynchronous content materials prior to the virtual event. This includes information about the roles and responsibilities of the participating providers, along with video interviews, a case, and a video of the patient. A video simulation with a standardized patient was created with a patient in South Africa. The patient has HIV, Diabetes, STI and multiple medical problems. The case also touches upon multiple elements of the social determinants of health. The students will receive the content and then meet synchronously in interprofessional groups to discuss the case and their roles with a facilitator leading the session in a problem-based learning format, encouraging student engagement.

This study will utilise a pre-test, post-test quantitative, survey design. A pre- and post-test quantitative survey design will be used to conduct this study. The study also utilizes the validated IPAS and ICCAS scales. Descriptive and inferential statistics will be used to analyse the research data. A high standard of research ethics, reliability and validity will be ensured throughout the study.

2021116

Introducing entrustable professional activities for medical students in pre-clinical rotations using rapid cycle deliberate practice

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Objectives

Background: One of the pressing challenges of the healthcare education in the United States is educating medical students in such a way that they can effectively perform clinical skills and exhibit professional behaviors under indirect supervision from the very first days of their residency training. The American Association of Medical Colleges (AAMC) acknowledges the importance that medical students are taught these skills and has developed a concept of entrustable professional activities (EPA). According to the AAMC, "This is an important opportunity for undergraduate medical education to develop a new construct toward preparedness and, as an end goal, improvements in patient safety. Ideally, students will perform the Core EPAs consistently in situations of varying complexity …" Entrustment is defined as trustworthiness in applying knowledge, skills, and attitudes in performance of an EPA. "To be 'trustworthy,' students must consistently demonstrate attributes such as conscientiousness, knowledge of their own limits and help-seeking behavior, and truthfulness." (Kenedy et al 2008). EPA entrustment is defined as a judgement by a supervisor or collection of supervisors signaling a student has met specific, defined expectations for needing limited supervision." Rapid cycle deliberate practice (RCDP) is a simulation-based teaching method whose aim is to ensure 100% correct and consistent performance of clinical skills. It is an effective tool for conducting EPA. Most often, EPAs constitute the clinical rotations part of the medical schools curricula and transition to residency bootcamps, making pre-clinical rotations missed opportunities. Gone are the days when the learning objectives of the preclinical activities were to "just to scratch the surface" of the clinical subjects leaving it for the residency training to achieve mastery of the clinical skills. All United States Medical License Examinations (USMLE) emphasize clinical application of medical knowledge.

Hypothesis/Goals: The University of South Dakota Sanford School of Medicine (USD SSOM) group of faculty, educators, and researchers is implementing the RCDP as a means of incorporating EPA in preclinical rotations with the ultimate goal to enhance transition from academia to patient care.

Method

RCDP is a teaching method developed by John's Hopkins University in 2012. It quickly achieved popularity and has been widely implemented in healthcare curricula. The distinguishing feature of the RCDP is providing immediate feedback to the learner and allowing him or her practice the skill over and over again until the mastery is achieved, and the learner demonstrates 100% correct and 100% consistent performance. RCDP can be used for teaching both cognitive and motor skills. During the preclinical rotations of the USD SSOM curriculum medical students participate in the Airway Management course. In 2020, the USD SSOM faculty and educators have used the RCDP methodology to convert the Airway Management course into the EPA. Based on the definition of the EPA, after completing the Airway Course medical students are expected to consistently perform induction into anesthesia and endotracheal intubation of a non-emergent simulated patient.

The Airway Course combines flipped classroom and RCDP methodologies. Prior to the simulation activity medical students are given reading assignments to learn the airway anatomy and physiology as well as pharmacology of the medications used for inducing patients into anesthesia and intubation. Additionally, medical students

memorize the standard sequence of the steps involved in an induction/intubation procedure. Students' knowledge before and after the activity is assessed with a 10-point multiple choice quiz (MCQ).

On the day of the activity, the students are given a demonstration of how to correctly perform an endotracheal intubation by the clinical faculty. After the demonstration, the students are split into groups of two learners and one instructor per each simulation station and practice inducing simulated patients into anesthesia and performing endotracheal intubations. High-fidelity simulators are used as simulated patients. Each student's performance is assessed with a validated checklist used for assessment of clinical competency of PGY1 anesthesiology residents. Each student receives an immediate feedback and repeats the procedure until he or she demonstrates 100% competency in a consistent fashion. After the activity, all students repeat a post-activity MCQ. This methodology is used for teaching orotracheal (day 1) and nasotracheal (day 2) intubations. Approximately six months after completing the Airway Management course, all students participate in a follow-up simulation session to test their induction/intubation knowledge and skills. Knowledge and skills degradation is assessed with the use of MCQ and performance checklists. While the performance checklists will remain the same as they reflect the standard of practice, the MCQ questions will be re-written so that the knowledge of the concepts is tested rather than just correct answer memorization.

Results

Multiple studies, including USD SSOM presented and published findings, demonstrate that one-time exposures to learning opportunities produce significant immediate knowledge and skills gain which deteriorates over six months without follow-ups. They show effectiveness of the used teaching methods in allowing learners to understand the concepts. The very nature of RCDP gives the USD SSOM educators reasons to expect that it will allow the learners not only to understand the concepts but also to achieve and retain proficiency in performing given clinical skills. As the RCDP relies on immediate expert feedback and multiple iterations of the procedure, it requires a different student/instructor ratio and time allocation. Just to understand the concept of intubation and practice it once, one instructor per six to eight students and a 30-min practice are enough. To allow students achieve mastery via RCDP, one instructor per two students and 60 min training session are required.

Conclusions

Modern healthcare places higher expectations on medical school graduates than it did a decade ago. Early introduction of EPA in medical school curricula can enhance students transition to residency training and ensure patient safety.

2021117

Designing an effective online interprofessional learning environment: Implementation and lessons learned from two faculty development programmes for educational practice improvement in the health professions

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Objectives

Well-designed interprofessional programmes amongst learners in the health professions has been found to foster teamwork, communication, and valuing the role of others in the healthcare team. On the contrary, poorly planned and delivered interprofessional initiatives may generate reluctance to engage in interprofessional collaboration and reinforce stereotypes. To foster an optimal interprofessional learning environment, educators themselves need to be supportive of interprofessional learning, and ideally have experienced it, so that they can role model best practices. Unfortunately, most health profession faculty development programmes are delivered within uniprofessional settings, with no evidence-based justification. For educators from different disciplines to effectively work together and value other professions, they should learn together understanding and becoming aware of each other's disciplines and teaching practices. One way to address this challenge is to deliberately design faculty development initiatives with participants from different health disciplines actively learning with, from, and about each other's professions and ways of teaching. Our study, therefore, aims to present the design, implementation, and lessons learned from two fit-for-purpose interprofessional faculty development programmes for educational practice improvement in the health professions.

Method

The Clinical Education programme (Masters, Postgraduate Diploma and Postgraduate Certificate awards) at the University of East Anglia (U.K) and the Postgraduate Diploma in Health Professions Education at the University of the Andes (Chile) were designed to enhance teaching, learning and assessment in an interprofessional learning environment. Both programmes were designed to provide educators with the opportunity to understand the work ethos and professional values of colleagues from other health professions, along with experiencing interprofessional learning and collaborative work. Despite the difference in geographical location, language, and culture, the courses exhibit several similarities. Table 1 illustrates the main features of both programmes. The interprofessional environment was built on four pillars: professional diversity, egalitarianism, blended learning, and active learning strategies. The learning experience is enhanced by the diversity of professionals who contribute to the teaching, and the learners from different professional backgrounds and work experience enrolled in the programmes, thus reinforcing a culture of interprofessional practice. Recognising the busy working schedules and needs of 21st-century health professionals, the programmes use blended/online learning to make the courses flexible and available off-campus. Programme activities are designed to facilitate critical thinking, collaboration, and workplace-based reflection and learning, facilitating inclusivity and promoting learning that will equip healthcare professionals for their roles as educators in health and social care environments, where professional collaboration is increasingly essential.

Results

A multidisciplinary mix of learners and educators have participated and interacted with each other throughout the different cohorts in both programmes. Table 2 shows the diversity of health professions involved in the courses, which has provided the opportunity to model interprofessional learning. Learners and educators have reported positive feedback across both programmes' internal quality assurance reports, with additional external

validation for the Clinical Education programme at the University of East Anglia being accredited for Fellowship from the Higher Education Academy (FHEA) and Membership of the Academy of Medical Educators (MacadMEd). The multidisciplinary team of educators, coming from different health professions and social sciences, has encouraged learners to appreciate each other's backgrounds so that all gain the best experience from the courses. Programme leaders agreed that the interprofessional environment established in both courses was mainly facilitated by three characteristics: a professions-inclusive teaching style, a flexible learning climate, and through interprofessional peer work. Teaching has been conducted through fully online and blended learning activities, where educators have delivered tutorials using a mix of examples, resources, applications, and guided readings coming from different health professions and focused on topics that provided common ground, such as clinical and student-centred teaching. Personalised tutorials and flexibility have also been essential to support students' needs and personal interests. The interprofessional setting has been facilitated by designing neutral online resources. Furthermore, providing a balanced workload, flexible attendance and assignment submission, and reduced face-to-face and synchronous contact has contributed to include a mix of clinicians with busy schedules. Finally, peer work has been conducted employing on-campus and online discussion, debates, and teamwork, with a balance of professional membership in groups, and through different peer-assessment activities in which the tutors deliberately conducted an interprofessional matching.

Conclusions

Faculty development initiatives that seek to prepare educators and learners for interprofessional learning and collaborative work should be an integral component of health professions education. Delivering these courses within professional silos is no longer justifiable. The successful implementation and delivery of these two programmes in geographically diverse settings showed that interprofessional learning can be facilitated through the creation of an environment conducive to collaborative working and learning from each other. Course developers carefully considered the pedagogical approaches used, the learning environment created, and the use of social learning to support communities of practice and interprofessional collaboration. This enabled participants from various professional backgrounds to learn together and from each other. The successful implementation of interprofessional learning strategies needs a flexible and adaptable team of educators able to collaborate and continually learn about, from, and with each other. This was possible, partly, as a result of the values and practices brought by the multidisciplinary teaching teams and the programmes' structure. Future research should explore the value and perception of these interprofessional settings for learners, along with potential transferability to their teaching practice. As the validity and relevance of interprofessional education grows, an effective way of promoting it is to train the trainers in formal and explicit interprofessional settings.

2021119

Do No Harm: International strategies to avoid harmful medical voluntourism

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Short Paper

Global health immersion provides care that fills resource and personnel shortages and can bring in significant tourism revenue, but there is potential for harm. The question of balance between the benefits of providing healthcare assistance and the potential harm requires closer investigation. Clinical projects that were not initiated by the community itself may cause existing health infrastructure to collapse and conflicting priorities between the host community and the medical volunteers (1). Some even argue that the creation of international medical outreach programs boosts a western governmental agenda without addressing the root causes of global health inequities (2). Global health electives are often accredited in the same manner as elective credits at home institutions, however, global health electives have specific considerations outside of the traditional elective that is not included in that accreditation (3). Medical voluntourism is a medical trip or program usually of a couple weeks duration organized by medical universities, religious groups, or others and provide a variety of services. A few strategies to mitigate the risk of harm include:

1) requiring pre-departure training

2) addressing the needs of the host community

3) a 2-way learning exchange focus

4) self-reflection and debriefing

These strategies have been widely used by medical groups around the world and provide additional insight for medical universities that design, develop, and implement global health immersion electives.

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2021120

Educators of healthcare professionals: the role of the interprofessional educator

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Short Paper

The aim of the healthcare educators' values and activities (HEVA) study was to establish, through an international five-phase consensus-building approach, a statement of the shared values and key activities, applicable to all healthcare professions educators without exception and regardless of the level of seniority or profession. The outcome of the HEVA study was a framework of nine core values and 25 activities that facilitate interprofessional discussions because they are based on a common understanding of the values and responsibilities that we all share.

However, it is known that otherwise excellent professionals may still fail to work effectively in teams (Lingard 2016) due to both horizontal and vertical factors. These factors may apply to teaching teams as well as to clinical teams. Since interprofessional education by its nature requires active and adult approaches to learning and a team approach to educational design and delivery, it is critical that interprofessional educators are properly equipped. In order to develop the clinical team workers of the future, they need to be able not just to teach within their own professions but also to teach as part of an interprofessional team. A shared identity as healthcare educators may ameliorate some of the professional and hierarchical barriers to effective interprofessional education (Browne et al, forthcoming).

The next part of the study has commenced and aims to address three further key questions:

• Which aspects of the HEVA framework apply particularly to interprofessional healthcare educators?

• Are there any additional values and activities that apply only to interprofessional educators?

• What are the team competences that enable interprofessional teaching teams to work effectively together?

There are three main components to this current work: a review of the literature and guidance on the role of the interprofessional educator; testing the feasibility and acceptability of using the HEVA framework as a guide to continuing professional development and recognition with general educators; and further work with interprofessional educators to explore how their role might be better supported through recognition of their specialised skills and capabilities. We will report on the project to date, together with its theoretical underpinning and main findings. We will also outline future directions for phase three of the project.

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2021123

Performance at Medical School predicts success in the Intercollegiate Membership of the Royal College of Surgery (MRCS) examination

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Objectives

Identifying predictors of success in post-graduate examinations can help guide the career choices of medical students and may aid early identification of trainees requiring extra support to progress in specialty training. Studies have already demonstrated the validity of academic performance during medical school in predicting ability during Foundation Training. However, there is little research on the association between medical school performance and performance during specialty training in the UK. This is an important gap in the literature as research from other contexts indicate that examination results taken during and shortly after medical school predict later performance on board certification examinations, patient outcomes and complaints. We assessed whether performance at medical school as quantified by the Educational Performance Measurement (EPM) and scores from the Situational Judgement Test (SJT) used for selection into Foundation Training predicted success at the Membership of the Royal College of Surgeons (MRCS) examination. Successful completion of the MRCS is mandatory for all UK surgical trainees and examination performance is known to predict future training outcomes within surgical specialties.

Method

This was a longitudinal, cohort study analysing data from the UKMED Database for UK graduates who had attempted MRCS Part A (n=1,975) and Part B (n=630) between 2013-2017. Univariate analysis examined the relationship between performance and the likelihood of passing MRCS at first-attempt. Logistic regression identified independent predictors of MRCS success. Given success in medical education and training is related to socio-demographic factors as well as academic ability, we also examined the relationship between MRCS success and sociodemographic factors, including these in logistic regression models.

Results

For every additional EPM decile point gained the chances of passing MRCS at first attempt increased by 52% for Part A (odds ratio 1.52 [95% confidence interval (CI) 1.46-1.60]) and 27% for Part B (1.27 [1.18-1.38]). For every point awarded for additional degrees in the EPM, candidates were 29% more likely to pass MRCS Part A first time (1.29 [1.12-1.48]). SJT score was not a statistically significant independent predictor of MRCS Part A or Part B success after adjusting for sociodemographic factors including gender, ethnicity and graduate status (P=0.182 and P=0.125 respectively).

Conclusions

This is the first study to investigate the relationship between medical school and foundation training selection performance with success at a high stakes UK postgraduate surgical examination. This study demonstrated the EPM's independent predictive power and found that medical school performance deciles are the most significant

measure of predicting later success in the MRCS. Whilst group-level attainment differences between sociodemographic groups have also been identified in other postgraduate examinations in the UK and United States, these require further investigation with differential item functioning analysis to rule out systemic bias as a cause. The findings of this study can be used by medical schools, training boards and workforce planners to inform evidence-based and contemporary selection and assessment strategies.

2021125

Peer Enhanced e-Placement (PEEP) – an innovative, technological and pedagogical answer to placement capacity emergencies within health and social care workforce education

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Prof. Gilly Salmon, CEO and Principal Consultant, Education Alchemists Ltd

Short Paper

Health and social care workforce education involves a significant proportion of the student learning time in mandatory practice placements. Placement capacity was an issue even before COVID-19 but has now become an emergency situation with recovery needed due to lost hours to COVID-19 and increasing student numbers (HEE, 2020); a global problem. Further, changes are needed in curriculum and pedagogy to prepare students for the increasingly complex demands within the workplace (Burgess et al, 2017), and placements play a key part in this (Taylor, 2020a). Covid-19 has forced higher education providers to reconsider placements and to explore facilitating earning through different modes. This presentation explores the PEEP, its reflection of the key principles of Team Based Learning (TBL) and the process of adoption of the PEEP acquisition package, customising the PEEP for multiple health and social care professions, supporting the education of the future health and social care workforce.

The original Peer Enhanced e-Placement (PEEP) was created to address the suspension of 2nd year BSc Occupational Therapy student practice placements. The usual placement outcomes, processes and paperwork were at the heart of the PEEP to provide the students with a consistent learning experience (Taylor, 2020b). The design, provided a digital learning ecosystem, using the University's Virtual Learning Environment (VLE). The students demonstrated a range of learning from their online placement, especially encompassing the principles of TBL.

The PEEP design drew upon the principles of TBL (Burgess et al, 2017; Jackson, 2020) and the five stages of learning (Salmon, 2011, 2013), providing a rich evidence based pedagogical underpinning for this model of placement delivery. The structure of the PEEP facilitated independence for students throughout their study and the deployment and application of acquired knowledge, to creatively solve clinical problems with their peers and colleagues. What emerged strongly was the exceptional ability of student to take responsibility, to be able to explain key concepts in discussion with peers, and to make and support their judgements whilst working together online. The emergent outcomes included large benefits around peer learning and working, professional reasoning and collaborative learning and practice.

The PEEP encourages students to be enquiring learners, through the structure of the PEEP timetables, where there are opportunities for independent learning and working peer groups, as would be expected within TBL (Burgess et al, 2017). Health and social care graduates need to be able to demonstrate problem solving, communication and collaboration skills and not just knowledge (Burgess et al, 2017). The PEEP presents students with a range of clinical problems or scenarios for them to manage and solve, which was demonstrated through the online experience. The learning further facilitated the development of employability skills to assist with the transition into the workplace (Taylor, 2020a).

The basis of the pedagogical approach to the PEEP was a grounded model of learning which addresses TBL in a practical and applied way demonstrating the concept of equivalence (Jackson, 2020) to ensure that learning not only met placement outcomes but offered additional benefits (Salmon, 2011, 2013). Models using Salmon's principles and those of TBL allow a rapid transition to online learning, whilst also facilitating self-directed learning (Jackson et al, 2020).

The value of peer learning is well reported and evidenced in the literature (Murray et al, 2020). The PEEP captured the benefits of the peer learning through the structure of the process, ensuring a student centred approach (Burgess et al, 2017). Core pedagogical principles from Salmon's (Salmon, 2011, 2013) 5 stages of

learning model underpinned the process of the student learning, reflecting some of the principles of TBL including equivalence of experience and learning (compared to traditional face to face), accessibility, good organisation, learning and robust design (Jackson, 2020). The promotion of metacognition was further enhanced in the PEEP with regular feedback and reflection (Zafran, 2020). The evaluation unearthed rich learning from the peer enhanced learning process, supported through the PEEP design, structure and implementation.

A PEEP acquisition package was developed to facilitate the scaling up and widespread adoption across Health and social care education. The package, through a flipped learning method of delivery, facilitates individual courses to adapt and contextualise a PEEP for their local requirements. The agile nature of the PEEP has enabled customisation and adoption by multiple health and social care professions, with the PEEP acquisition package process ensuring that the crucial underpinning pedagogical considerations in the design and implementation are maintained.

This presentation offers the audience an introduction to the PEEP, its reflection of the key principles of TBL and the process of adoption of the PEEP acquisition package, customising the PEEP for multiple health and social care professions, supporting the education of the future health and social care workforce.

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2021126

Sri Lankan Undergraduate Healthcare Students' Perceptions of Interprofessional Learning: A Cross-Sectional Study

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Objectives

Interprofessional learning primarily aims to reduce prejudice among professionals, improve awareness of the roles and duties of other professional groups, and advance teamwork and collaborative competencies. This study was conducted in order to assess the perception of undergraduate health care professional students on interprofessional education/learning in Sri Lanka.

Method

This was a cross–sectional and descriptive-analytical study conducted in 2016 on 300 undergraduate health care professional students. The study population consisted of fourth-year undergraduate healthcare professional students' in four main professional degree programs - medicine, nursing, pharmacy and occupational therapy - across two selected Universities in Sri Lanka. Quantitative data were collected through a 19- item, validated and modified questionnaire. 'the Readiness for Inter-Professional Learning Scale (RIPLS)' containing four subscales: teamwork and collaboration, negative professional identity, positive professional identity and roles and responsibilities. Means and standard deviation (SD) of the scores were calculated. All the analyses were carried out using SPSS version 20.

Results

The total mean score for all four items was M= 69.15 and SD =10.97). The RIPLS total score was significantly different between genders (P= .028). Statistical difference were identified between subscales and genders. In order to comparing students' RIPLS total scores by degree programs of study a significant difference was identified between each degree programs (P= <.001) due to group size are unequal. Comparing each degree programs results of the nursing students indicate higher total score as 72.08 and the pharmacy students' highlighted lowest mean score as 61.08. The respondents' between 29.7% and 53% gave the highest rating for teamwork and collaboration as strongly agree. For negative professional identity, the lowest rating by 22-27% as strongly disagree. The highest rating reported as 26.7-32% for the items in positive professional identity and for roles and responsibilities the highest rating were indicated as 10-31.3% and the lowest rating were 4.7-23.3%.

Conclusions

This analysis produced the level of undergraduate healthcare students' readiness for interprofessional learning in Sri Lanka.

2021127

Perceptions of RCSI Bahrain Nursing and Medical Students towards Inter-Professional Education and Social Interactions

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Short Paper

Interprofessional Education (IPE) is becoming increasingly popular and highly recommended to be included in the health care professional curricula.1 IPE can result in positive outcomes of the educational intervention in improving students' knowledge, skills and attitudes towards collaborative teamwork, that can highly benefit the patients.2 The aim is to understand the Nursing-Medical Students perception about the effectiveness of IPE on the professional and social interaction RCSI-Bahrain. Moreover, to explore the barriers affecting their interaction and suggested facilitators to be implemented in the university to improve their collaboration. A qualitative study was conducted on June, 2018, using a purposive sample of 8 medical and nursing students. Data was collected via two separate semi-structured focus groups. The inclusion criterion was medical and nursing students who have been in the university for more than two years. Data was transcribed and analysed verbatim. The results revealed that students from both school had a clear understanding of the IPE definition and its importance even on a long term view. Students admitted that lack of interaction is an issue but they never tried to fix it. Three themes emerged as barriers: (1) students perception at a cultural and religious level, (2) personal, and (3) professional level. The solutions reported included (1) current RCSI role in bridging the gap, (2) formal and informal activities that are suggested by the students to enhance their interaction.

This study was funded by the RCSI Research Summer School Fund.

2021128

The Relationship of Personality, Spirituality and PTG to Subjective Wellbeing

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Objectives

A growing number of studies are indicating that a number of people report psychological growth after experiencing trauma. This may be so because suffering stimulates the need and search for meaning.

Method

In this cross-sectional and correlational study, we sought the relationship of subjective well-being to posttraumatic growth (PTG) in view of past trauma experiences and perceived stress. In particular, we investigated a sample of tertiary students' perceived stress, past traumas, subjective well-being, faith maturity, positive and negative affect, and personality, together with demographic correlates.

Results

Past traumas included loss of a loved one, chronic or acute illness, injury, divorce, violent crime, and job loss, amongst others. Only a quarter of respondents experienced their trauma/s 5 years or more prior the study, thus indicating relatively recent trauma experiences. Post-traumatic growth correlated with personality, faith maturity, well-being and positive affect. In examining the patterns of correlations noted above, a hierarchical multiple regression analysis was employed. Posttraumatic growth was found to have unique variance even after partialling out key variables such as perceived stress, personality and faith maturity.

Conclusions

Although situational factors and personality did play important roles, this study clearly points at the relevance of faith maturity and posttraumatic growth for the promotion of holistic well-being of those affected by trauma. Religious beliefs may counter hopelessness and form an important buffer in this equation. The psycho-social implications of these results were discussed.

2021129

The Public Health workforce in Romania - from data to recommendations to future implementation

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Objectives

The contribution of a competent public health workforce to any health system is vital to ensure the proper functioning of the system. The Romanian health system has long been experiencing chronic health workforce shortages. The aim of this paper is to provide an overview of the Romanian public health workforce and identify potential solutions to address the identified challenges.

Method

Data has been extracted from the Activity of the Healthcare Institutions (Activitatea Unităților Sanitare), a yearly report issued by the National Institute of Statistics.

Results

Between 2009 and 2018, approximately half of the counties (22 out of 41) in Romania did not have public health specialists. Also, over the period 2009-2018, the number of public health specialists fluctuated between 140 and 217. There was a decrease of 35% specialists in 2012 compared to 2009. More than three-fifths of all public health physicians were women, which shows a tendency of feminization in the public health workforce. Furthermore, the majority of the workforce is concentrated in Bucharest (both specialists and residents) and other large, academic cities such as Timișoara or Iași.

Conclusions

Given the shortages highlighted by current data, we conclude that planning, training, and employment of the Romanian public health workforce should be reconsidered. Policy efforts should focus on raising the attractivity of public health jobs, as well as recruiting, retaining, and motivating public health workers.

2021130

Enhancing the leadership knowledge and skills of Namibian and Welsh qualified nurses and student nurses

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Mrs Julia Todd, Lecturer, Cardiff University, Dr. Carolyn Middleton, Aneurin Bevan Health Board

Objectives

The Namibian Nurse Leadership Project (NNLP) commenced in January 2019 funded by a grant from the Wales in Africa, Welsh Government Scheme. It was a collaboration between the School of Healthcare Sciences, Cardiff University (CU); the School of Nursing, University of Namibia (UNAM); Aneurin Bevan Health Board (ABUHB), and the Ministry of Health and Social Services, Namibia. The main objectives were to:

Develop joint leadership competencies, assessment and teaching materials for use in undergraduate BSc. Nursing programmes in Cardiff and Namibia

Develop and implement a buddying scheme between final year student nurses studying at UNAM and CU centred on leadership and the enhancement of cultural competence.

Develop and implement a buddying scheme between qualified nurses in Namibia and qualified nurses in ABUHB based on leadership in clinical practice and the enhancement of cultural competence.

Develop and implement a leadership and health improvement programme for qualified nurses in Namibia, to prepare nurses to lead and implement health improvement initiatives.

Prepare 'leadership champions' to cascade leadership and health improvement education to nurses across Namibia.

Method

The project had three parts, with a focus on leadership development for undergraduate nurses, a focus on leadership development for qualified nurses and a leadership and health improvement programme for qualified nurses.

Part 1. Academic staff from UNAM and CU worked together to develop leadership learning outcomes suitable for use in the Bachelor of Nursing Curricula for both Universities. Focused on an approach of a) focus on self; b) working with others; c) improving healthcare and building learning throughout the programme, commencing with a focus on self through to improving healthcare (Health Education England 2018). For the basis of this project a decision was made to concentrate on the element of emotional intelligence.

The student buddying system was established between UNAM and Cardiff final year nursing sessions. Five sessions were run, each with a different focus: getting to know one another/ nursing in another culture; emotional intelligence; leadership theory; scenarios from practice. A pre and post questionnaire was administered to the students to check understanding of nursing/ culture in the respective countries, and to gain baseline data on their understanding of emotional intelligence and leadership theory and practice.

Part 2. A formal buddying scheme between senior nurses in Namibia and ABUHB to facilitate sharing of information, knowledge and skills and provide nurses with insight into other cultures and experiences in nursing. Films pertaining to 'a day in the life of a nurse in intensive care in ABUHB; 'a day in the life of a district nurse in

ABUHB'; and 'a day in the life of a nurse in emergency care in ABUHB' were used to demonstrate what nursing in the UK looked like in different clinical environments.

Four virtual sessions of 2 hours took place for those engaged in the buddying scheme to share experiences and explore leadership in practice. Leadership materials were shared with participants that included an emotional intelligence questionnaire and response form, which allowed individuals to measure their own emotional intelligence and use this for personal development. A pre and post evaluative questionnaire was distributed.

Part 3. A 2 day workshop was developed with both partners to deliver leadership and health improvement education to 75 Namibian nurses comprising of 25 nurses from each of the regions of Windhoek, Oshakati and Rundu, with workshops delivered in each of these regions. Evaluation of the workshop took place via a short questionnaire.

Results

The project achieved the majority of its aims, other than training trainers to deliver the programme in Namibia.

Part 1. The student buddying scheme was effective for students in both countries, with very positive responses received. Five sessions were run, each with a different leadership development themes. Approximately 20 nurses from each University expressed an interest in being involved. Initially there were problems with IT and organising the sessions at UNAM. This was overcome and approximately 8 nurses from Cardiff and 24 nurses from UNAM (Rundu, Oshakati and Windhoek campuses) took part in the buddying. Qualitative comments suggest nurses from both countries gained an understanding of nursing/ culture in the UK and Namibia.

Part 2. The qualified nurse buddying scheme included very small numbers from ABUHB and although the 3 that participated found it very useful, these responses cannot be translated into the wider population of nurses in Wales. Namibian nurses who participated have not yet completed post-evaluation questionnaires, and a variety of nurses attended, with few nurses attending all sessions, making the whole buddying experience difficult to evaluate. There are huge difficulties both from a technical and a staff resource perspective in establishing such a scheme for qualified nurses. Nurses from both countries needed to attend a central point in the respective Universities to partake in the remote buddying, which proved difficult in terms of release from the work environment.

Part 3. Recruitment to workshops met with poor response due to staffing shortages and one workshop in Windhoek was therefore.11 nurses attended the 2 day workshop. Overall, the workshop was a success and the objectives were achieved. Volunteers were requested to act as 'change champions' within their own organisation. Three people volunteered to partake in the 'train the trainer' workshops. These were planned to take place in March 2020, however covid-19 has restricted international travel plans.

Conclusions

The project achieved the majority of its aims, other than training trainers to deliver the programme in Namibia. This has been affected by Covid-19 and the restrictions on travel. There were challenges recruiting to the workshops and qualified nurse due to workforce pressures. The workshop evaluations were extremely positive and proved that learning had taken place. The lack of evaluation of whether nurses who attended implemented health improvement projects as identified is not known, and hence the effects on practice cannot be demonstrated.

2021133

Analysis on educational activities for professionals of the Primary Health Care in São Paulo city, Brazil

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Dr. Douglas Andrade, Prof., Universidade de São Paulo

Dr. Andréa Viude, Prof., Universidade de São Paulo

Objectives

The purpose of this study is to describe a diagnostic of educational activities provided to professionals actuating in the Primary Health Care in the city of São Paulo-Brazil, and from such diagnostic, to present a proposal of an Observatory, which was developed to know, monitor, assess, and supply conceptual, methodological, and pedagogic subsidies to systematize the educational activities provided to the professionals.

Method

Quantitative-qualitative, descriptive study carried out through documentary analysis and interviews with 50 professionals, from different categories, who work in Primary Health Care services, in a poor region of the city of São Paulo-Brazil.

Results

There is evidence of a commitment on the part of services to offer educational activities. But, there is a lack of evidences of the purposes of the educational activities as well as its alignment with the National Policy of Permanent Education in Health. The lack of definition and lack of the method to assess professional development.

Conclusions

Before such results, an Observatory was implemented seeking to support, monitor, assess and provide conceptual, methodological, and pedagogic subsidies to the educational activities. As the city of São Paulo is representative of many metropolitan areas in Brazil and in countless other low-income countries, although having their own specificities, it is believed that such proposal may have correspondence or even be applied to public health systems abroad.

2021134

"Lurker" to Learner: Encouraging Collaborative Learning Using a Scaffolding and Peer Assisted Learning Approach

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Prof. Phillip Smith, Neurologist, Cardiff School of Medicine

Objectives

This research presents the first evaluation of a peer-led scaffolding workshop, aiming to increase engagement with question writing and commenting on questions on PeerWise. PeerWise is a widely used collaborative learning platform that allows a cohort of students to generate a multiple-choice question repository. Despite evidence that writing and commenting on questions is associated with improved performance in summative exams, few students are engaging with these activities, instead prioritising answering questions. Here, we evaluate Cardiff medical students' engagement with PeerWise since its introduction in 2013 and pilot a peer-led scaffolding workshop.

We aimed to improve Cardiff School of Medicine medical student engagement with question writing and commenting on PeerWise, using peer-led scaffolding to help students transition from 'lurkers' to learners and foster deeper learning. We hoped to achieve this through 3 objectives:

1. To conduct a literature search to evaluate learning with PeerWise.

2. To evaluate how Cardiff 1st year medical students use PeerWise.

3. To design and evaluate a pilot workshop with the short-term aim to increase engagement with PeerWise learning activities and the long-term goal to promote deeper learning.

Method

This research describes two cycles of educational action research with a focus on quality improvement. Initially, we addressed the question: Does peer review help students write better quality questions on PeerWise? However, following the literature search and thematic analysis of the preliminary study data we identified that Cardiff students were not using PeerWise for deep learning.

In the second cycle, we extracted participation data from PeerWise for students enrolled in 4 of the Year 1 courses during academic years commencing 2013 until 2018 (n= 1,272).

Finally, we designed an interactive workshop applying a scaffolding and peer assisted learning approach for first year medical students. We used thematic analysis to analyse students' pre and post session questionnaires as well as work completed in their workbooks.

Ethical approval was granted by the Centre for Medical Education, School of Medicine, Cardiff University.

Results

The 4 described cohorts wrote 7,540 questions, answered questions 846,275 times, posted 1,276 comments and rated questions 432,997 times. Students wrote a median of 1 question but answered 485.5 questions. The 10 most prolific student authors represent 0.7% of the study population and collectively wrote 33.3% (2,803) of all questions. Most peer-comments on their colleagues' PeerWise questions were only positive, without feedback for improvement. Positive comments were also shorter (64.3 characters) than the mean (129.6 characters). Student perception of the peer-led scaffolding pilot workshop was overwhelmingly positive and suggests that the workshop may increase student engagement with collaborative learning.

Conclusions

Most Cardiff Medical students are relying on others to write questions, favouring answering over authoring on PeerWise. This 'lurking' behaviour does not facilitate higher order thinking and likely represents a strategic learning approach. Our peer-led scaffolding workshop should be improved in line with student feedback and integrated into the current curriculum in order to promote deeper, more collaborative learning.

2021135

Service Design and Interprofessional Collaboration in Finnish Social and Health Care Education

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Mr. Timo Sirviö, MSc, Senior Lecturer, Design, Savonia University of Applied Sciences, Unit of Design

Objectives

This study is a part of the national SoTePeda 24/7 project and concentrates on Interprofessional Collaboration (IPC) and Service Design knowledge of social and health care teachers in Finnish higher education. Service Design in Social and Health care focuses on user experience and the development of the patient path in the service system. It is a human centered approach and the whole idea of Service Design includes a strong implication of ICP. IPC is crucial to get a wider perspective of the social and health care service to be developed. In an educational context Service Design Thinking that includes IPC is an approach that focuses on developing students' creative confidence and IPC-skills. Participants with different professions in working life and students from diverse programs (nursing, social care, engineering, business, ITC etc) engage in hands-on design challenges that focus on the key core of Service Design: developing ICP and empathy, promoting a bias towards action, encouraging ideation from different perspectives, building tangible prototypes of new service concepts, developing metacognitive awareness and fostering creative problem-solving with an interprofessional approach.

Method

The collection of data was made through an Internet questionnaire which was sent to teachers in Social- and Health Care Education at 24 Universities of Applied Sciences in Finland. The preliminary results were analysed in SPSS, Statistical Analysis Software. The questionnaire surveys teacher`s attitudes, knowledge and implementation of Design thinking and ICP in Social- and Health Care Education.

Results

The questionnaire was answered by 172 respondents. Findings show that about half of the respondents (n=85) had very good or good knowledge of Service Design including ICP and 38% of the respondents were aware of processes needed in the method. 32% answered that they knew the methods well or very well. About 28% answered that they had very good or good knowledge in how to use Service Design in teaching.

Only 26% had very good or good knowledge how to implement or solve problems in working life with Service Design. Over half of the respondents (57%, n=93) thought that Service Design is important in developing working life and person centered care.

Conclusions

According to the results, it seems that educators in social and health education thought that Service Design thinking and IPC is important in developing education and working life. However, the skills to combine design thinking and IPC in the education should be developed in the future. The Service Design Educational package developed in Sote-Peda 24/7 project can be used to increase the knowledge of students and teachers in Universities of Applied Sciences. The knowledge gained can be integrated in collaborative courses for students from different sectors and thus create and give competence for ICP in future working life

One of the key objectives in the Sote-Peda 24/7 project is to increase the knowledge and the use of the Service Design in the social- and health care field. This will be done by producing educational materials for teachers and students and by training teachers to become Service Design mentors in their own universities.

2021136

Leadership in Action: Personal Reflections of an Occupational Therapy Student Placement

Miss Lily Thompson, Level 6 Occupational Therapy Student, Cardiff University

Miss Ibtisam Jeraj, Level 6 Occupational Therapy Student, Cardiff University

Short Paper

The importance of leadership training within healthcare education is becoming increasingly recognised. It gives newly qualified practitioners a level of leadership knowledge which can help them to take on their roles more effectively and provide a smoother transition from an educational setting to clinical practice (Barr and Dowding 2019).

At Cardiff University, this has been put into action by providing leadership and management placement opportunities for final-year occupational therapy students. As two students on our final placement, we have been working within the School of Healthcare Sciences to explore and develop leadership skills across an interprofessional setting. Within this placement, various opportunities have been provided to observe leadership within the school and the wider healthcare structure. Through attending, organising and leading meetings with senior staff, we have explored different leadership styles, the qualities needed to be a good leader and how the role of a leader needs to be adapted when unexpected events, such as Covid-19, occur. To help us develop our leadership skills, the placement has provided us with the opportunity to lead several projects which has allowed us to demonstrate our leadership skills in action.

To help develop our knowledge and understanding, we have identified different leadership theories and critically evaluated the similarities and differences between them. Within this discussion, we will present our reflections on the use of two of these models in relation to projects that we have undertaken.

Project 1

Using the principles of compassionate leadership (West et al. 2017), we undertook project work which contributed to a wider school initiative, focussing on the process required for securing healthcare provision within the university setting. As leadership students, we led a project investigating student perceptions of areas of best practice and recommendations for development. The four themes explored were interprofessional education, digitalisation, simulation learning and practice education offered by the university.

Our action plan identified the people we needed to speak to and the method for collating the perceptions of students which resulted in us designing a survey. Once data was collected, results were analysed and a report was created to be shared with the wider project team. Throughout this process, we applied the compassionate leadership principles of attending, understanding, empathising and helping.

Project 2

Using an action centred approach to leadership (Adair 2020), we facilitated and led a group project for all Level 4 occupational therapy students. The aim of this project was to enable Level 4 students to develop their ability to present the role of occupational therapy to people from different health and social care backgrounds using different methods of communication. Our role in this project was to facilitate discussions within the groups and provide constructive feedback from a Level 6 student perspective. When carrying this out, we worked on team building, developing individual members of the team and completing the task as we applied the principles of an action centred approach (Adair 2020).

Findings and discussion

Within practice, healthcare practitioners share common goals and will often demonstrate leadership with their patients/service users and teams. Each profession must lead in their area of expertise (Chreim 2013) by leading treatment/therapy sessions and working towards shared goals. As a result of this placement, we have developed

our own understanding of leadership and what effective leadership looks like in action. As a consequence of our experiences, we have realised the importance of learning leadership skills early on in our careers as healthcare students. This resonates with Health Education England (HEE 2018) and the Welsh Government (2019) who both recommend healthcare students engage in leadership from the outset. For the student body, leadership skills such as project management and the importance of different methods of communication within an organisational structure may not always be evident within their placements. Therefore, we recognise that these skills require thoughtful development throughout the curriculum, and we will present ideas around this theme.

Throughout our placement, we have seen the need for healthcare professionals to take into consideration implications of their actions on the wider healthcare system, fostering collaborative interprofessional practice where necessary. Having the opportunity to learn from professional heads, senior staff members and external healthcare professionals within this placement has been invaluable. The opportunity to develop our leadership strengths and reflect upon our skills will ensure that we are able to be leaders of future.

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2021137

The use of Graphic Medicine in Interprofessional Education

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Miss Katie Laing, Student, University of Glasgow

Miss Amie Hutty, Student, University of Glasgow

Short Paper

Introduction: Visual aids, such as diagrams, mind maps or flow charts, are well-established implements in medical education; however, the utilization of visual narrative remains in its early development. Graphic medicine combines the use of illustration and words to effectively portray both patient and practitioner healthcare experiences, which can be difficult to explain and understand. It also encourages in-depth reflection through creativity; exploring important themes such as interprofessional education, professional identity and the hidden curriculum. Whilst interprofessional education is being increasingly incorporated into medical education, it continues to prove challenging to integrate these important opportunities in spite of the comprehensive educational potential from learning with and from all healthcare professionals.

Despite increasing educational evidence, the stereotyped history of comics as a form of mediocre childhood literacy dominated by superheroes has inhibited the integration of Graphic Medicine within medical education. This presentation aims to provide a window into destigmatizing the value of using comics to allow students to learn from the healthcare team through creative means.

Description: The Graphic Medicine Student Selected Component (SSC) is a five-week program at the University of Glasgow, with the January intake consisting of three 2nd year medical students. Students both read and created their own comics that enabled them to explore and reflect upon their own perceptions of the roles of the Multidisciplinary Team and what their own professional identities are. An interdisciplinary approach was developed, where students participated in creative exercises with different healthcare professionals: sharing their actions, views and behaviors in relation to the intersection of professional clinical practice and personal identity.

Discussion: Learning from a variety of healthcare professionals using Graphic Medicine allowed students to express and explore their opinions in a creative form. Being taught by qualified and experienced nurses within the NHS gave students a different and real perspective on the thoughts and feelings healthcare professionals have whilst working together. This helped to identify and address barriers and challenges that can exist between doctors and other healthcare professions in the working environment, therefore working to improve team cohesion, wellbeing and patient safety. Additionally, this approach enabled greater student involvement within the healthcare team and thus reflection within the sessions compared to traditional teaching styles.

Conclusion: The SSC created a powerful opportunity for students to build upon relations with their peers and the wider healthcare community, which strengthened their own understanding of interprofessional education and their professional identity.

Key learning points

1. Understand that interprofessional education can be challenging to teach, as stigmas and barriers from within the hidden curriculum of the healthcare environment can prevent or disrupt learning. Identify how this can be combated through student learning being discussed and expressed through creative mediums with members of the healthcare team, thereby flattening traditional and outdated hierarchies.

2. Understand the difference between traditional teaching styles compared to new innovative styles and analyze how their integral relationship impacts and enhances interprofessional education strategies.

2021141

The Salutogenic Personal Leadership Framework: Promoting personal, team, organisational and community health

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Short Paper

The increasing demands faced by health care professionals and services has been brought into spotlight by the recent pandemic. These demands are also experienced by the patients and service users. Alongside this is the need for personal resourcing, collaborative and agile leadership. One approach to support these demands and needs is through the holistic learning of professionals via the use of storytelling (see StoryAidEU).

Story telling provides a humanistic and holistic approach to education and collaboration across disciplines and stakeholders. It also builds strong and trusting relationships which are fundamental to the delivery of effective healthcare.

Building relationships is an essential part of leadership. Resonant leaders, are aware that their presence, values and actions have the ability to impact others. They build relations and are effective in managing their own emotions [1] and use their emotional intelligence to inspire and guide others. By being resonant, they are likely to have high levels of job satisfaction and subjective wellbeing [2]. Alongside this, leaders and organisations also have an accountability to manage workplace demands and promote health for their teams and employees [3]. Salutogenesis is a term that encompasses a cross-cultural approach to promoting health and wellbeing in workplace settings [4] and within the public at large [5,6]. Fundamental to the ability of individuals to maintain health during periods of challenge is their sense of coherence. This relates to their beliefs regarding meaning in their lives, their sense of comprehension (understanding their role/place in the situation) and their ability to manage [4,5,6]. Self-stories, narratives or biographies are an important part of our construction of self and the professional and personal relations we form. Coaching has been shown to develop resonant leaders [1] and we propose that , using a narrative-based coaching methodology supports the development of personal leadership to promote mental wellbeing in the challenge of living with and beyond cancer [7].

Coaching is a process that explores both the attainment of goals and/or the attainment of personal growth and development to reach their personal and/or professional potential. It is delivered through interactions that are one to one or one to several [8]. Coaching skills are now common within leadership in many organisations. There is the opportunity to further enhance these skills particularly for resonant leaders, who are able to self-regulate on an emotional basis, through the learning, practice and integration personal leadership model.

Coaching for personal leadership involves collaborative exploration through dialogue and focuses on the value of narrative frameworks and storytelling. The collaborative dialogue of 3rd generation [9] narrative coaching provides a process by which the coach and client (colleague, patient, organisation or community) develop critical awareness of the reality of their situation, gain access to information and utilise this in the development of knowledge (learning). This coaching process creates a cyclical practice of reflection, exploring emergent goals and integrating the learning into practice. It is based on the 4 key areas of the personal leadership framework and are the stories/biographies or narratives that relate to the elements of awareness, Sense of Coherence (salutogenesis), leadership and self-leadership.

Coaching has been shown to be effective in developing health narratives [10, 11] and is a viable approach to develop in health care settings.

This presentation aims to share with the INHWE community the thinking (research) and experience of using the personal leadership framework within the coaching process.

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2021142

Regular weekly simulated patient scenario teaching increases both confidence and preparedness in final year medical students for finals exams and working as a junior doctor

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Objectives

Final year medical students whilst at the Royal Bournemouth Hospital received weekly simulated patient scenario teaching covering common medical and surgical emergencies over a 6 month period. Towards the end of their placement a regional Mock OSCE was held covering stations on history taking, examination, clinical skills, communication, radiology, prescribing and emergencies. Frequently students reported anxiousness and lack of confidence for their upcoming exams and the beginning of their careers as doctors. To evaluate the usefulness and preparation that regular teaching provided, the medical students were asked how confident and prepared they felt at different stages of their training and after starting work as junior doctors.

Method

Final year medical students were asked to fill in a questionnaire anonymously pre and post mock OSCE. The questionnaires were focused on how prepared and how confident they felt for their upcoming real OSCE. Answers were based on a 1-10 scale, for example, where 1 was not at all confident and 10 extremely confident. Questionnaires were filled in at the briefing before and after the mock OSCE.

The final year medical students that received weekly simulation teaching were also asked to complete two further questionnaires. The first after completing their OSCE as part of their finals exams and the second after a couple of months of starting work as a newly qualified doctor. These questionnaires were asking how well they thought the regular teaching sessions and mock OSCE gave them confidence and prepared them for their actual OSCE and for starting work as junior doctors. Answers were again based on a 1-10 scale.

Results

Twenty one medical students participated in the regional mock OSCE. The average pre mock OSCE level of confidence was 5/10 and this improved to 7/10 post mock OSCE. The average pre mock OSCE level of preparedness was 3/10 and this improved to 6/10 post mock OSCE.

After completing the final OSCE exam the medical students were asked how well the SIM teaching, skills teaching and Mock OSCE gave them confidence for the real OSCE, the average result was 9/10. On average the medical students felt that the teaching had given them a 9/10 level of preparedness for the real OSCE.

A couple of months after starting work as junior doctors the same group were asked how well they thought the teaching gave them confidence and preparedness for being a foundation doctor. The average level of confidence and preparedness from the teaching were both 8/10.

Conclusions

Regular simulated patient scenario teaching, skills teaching and mock OSCE preparation sessions gave the final year medical students increased confidence and preparation for their final OSCE exams as well as for being newly qualified junior doctors.

2021144

Interprofessional Team Based Learning in an Online Setting

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Dr. Michelle Camilleri, Senior Lecturer & Head of Department, Department of Nursing, University of Malta

Dr. Maria Cassar, Senior Lecturer, Department of Nursing, University of Malta

Short Paper

The COVID-19 pandemic has forced educators individually, and universities collectively, to rethink their mode of teaching and assessing. Several universities have radically shifted from traditional face to face teaching to online modes of teaching and assessing. The aim of this presentation is to share the experience of three health workforce educators in the design, coordination, delivery and assessment of a fully online post-registration programme. Now in its twelfth year, this programme is interdisciplinary in nature and caters for qualified health professionals from various sectors and with various levels of experience seeking a baccalaureate qualification. The presentation intends to explain the shift from a face to face to an online mode of delivery for this academic top-up programme, its underpinning ethos and its attempts at fostering a community of learners in an online setting. It explains the challenges encountered and the lessons learnt through feedback from the students, stakeholders, external examiners and individual and group reflection by the programme's team. Finally, the authors intend to share good practices that may be of interest and applied by educators in other settings and countries.

2021146

Effect of Peer Assisted Learning (PAL) on improving psychomotor skills, self-confidence and attitude towards PAL of second year Nursing students

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Dr. Gayathripriya Narayanan, Assistant Professor, University of Bahrain

Objectives

1. To measure the effectiveness of PAL on psychomotor skills, self confidence and attitude among nursing students

2. To explore nursing student's perceptions towards using PAL in physical examination course.

Method

Research Design: Mixed methodology in which both quantitative and qualitative approaches were adopted. In quantitative approach, a quasi-experimental design was used to measure the impact of PAL on improving psychomotor skills, self-confidence and attitude. In qualitative approach, a phenomenological design was used to investigate nursing students' perception toward the effectiveness of PAL .Non-Probability Convenience sample of 17 nursing students who were enrolled in second years in the academic year 2019/2020. Data collection methods involved Quantitative data: Performance of psychomotor skills during physical exam, self confidence and attitude during cycle 1 and cycle 2 and compared the results between two. Qualitative data: focus group interview was conducted at the end of cycle 1& cycle 2.

Results

The mean age of male students were 21.50 and female students were 201.58.Equal percentage (77.2%) of students revealed that they had both experienced as peer tutors and tutees. Repeated measures ANOVA showed the overall psychomotor mean skill score was statistically significant between pre-test, cycle-1 and cycle-2($F = 59.71$, $p \leq 0.001$). Post hoc multiple comparison of Bonferroni t-test showed the skill improvement score from precycle to cycle-2 (80.11 ± 4.79 vs 85.89 ± 3.46, respectively, which was statistically significant ($p \leq .001$). In relation to self confidence, student paired't' test revealed in cognitive domain ($t=3.26, p=0.01$), affective domain ($t=2.99, p=0.01$),psychomotor domain ($t=3.69, p=0.01$) between cycle 1&cycle2 and overall significance at ($t=6.23, p=0.001$). Through McNemars's test the level of attitude was measured and there was a significant difference between Cycle-1 and Cycle-2 in the level of attitude score at the level of $p<0.05$.

Focus group interview: Emerged themes are increased communication skills, increased self confidence, Effective learning environment, enhanced teaching skills & time consuming process.

Conclusions

All over the world, especially in the educational field there is a major global shift from teacher centered learning to student centered learning (SCL). PAL is one of SCL enhanced nursing students psychomotor skills, self-confidence, increased communication skills, gained socialization and emotional support, attitude and all these factors contributed to the personal development. PAL molded nursing students to become a professional nurse who can exhibit professionalism in their future career. Undoubtedly, PAL is one of the most effective learning strategy which significantly contributes to the nursing education researches. PAL has been gaining momentum to enhance student centered learning approach, and thereby improve the quality of teaching and learning practice in any higher educational institutions.

2021149

Problems in public health program planning exercise with a team-based learning approach during COVID-19 confinement: An experience from Indonesia

Mrs. Nuzulul Putri, Assistant Professor, Universitas Airlangga

Objectives

Public health program planning is one of the required core courses for Bachelor of Public Health students in Indonesia. Universitas Airlangga conducts this course by using a case-based that involves interdisciplinary health workforce and community. Small teams of students exercise the situational analysis to design the health program. We describe the course structure and any challenges to apply this approach during COVID-19 confinement and share lessons learned.

Method

This lesson study was conducted during the "study at home" policy related to Indonesia's COVID-19 confinement. The teams of lecturers collaboratively plan dan modify the lesson instruction with any limitations due to the confinement. A process note was created for each discussion during course planning, implementation, and evaluation. We also recorded the student's responses and performance during the course.

Results

The lecturers realized the significant limitations is sharing an authentic experience in conducting qualitative primary data collection during situational analysis. Otherwise, a more COVID-19 contextual setting also urge to be delivered since it brings a massive disruption in how a public health program is conducted in Indonesia.

Conclusions

The COVID-19 confinement force the lecturer to move all of the learning processes to be virtual. Hence, a refinement of study design and material is a basic need that should be considered. More innovation on a case-based with team-based learning setting should be more explored.

2021150

Language Interpretation Devices in Clinical Medical Examinations

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Objectives

This study explores language interpretation in clinical medical examinations. RCSI Bahrain, is a multicultural educational setting where language barriers between students and patients in a clinical medical exam can pose difficulties for both parties. The context of this research was English speaking medical students who were taking the history of patients with limited English proficiency. The study was divided into three inter-related action research cycles. Action Research Cycle 1 (ARC1) assessed the benefits and the challenges of using a medical interpreter in examination settings while Action Research Cycle 2 (ARC2), which is the focus of this abstract, explored the benefits and the challenges of using a digital language interpretation/translation device.. . In Action Research Cycle 3 (ARC3), the findings from ARC 1 and ARC 2 were used to develop specific guidelines for language interpretation practices. Hence, as a team, this research was conducted with the aim of improving language interpretation processes within the context of clinical medical examinations.

Method

Action Research Cycle 2 (ARC2) was aimed at exploring the use of language translation technology. It involved a mock clinical examination where English-speaking students took a medical history from non-English speaking patients using an in-ear interpretation device. This device was capable of instant translation from Arabic into English and vice versa. The device also connected wirelessly to the student's phone producing a transcription of the conversation as a pdf file. Data collection involved conducting a follow up focus group interview with students and semi-structured interviews with two examiners. Data was analyzed by using the Braun and Clarke (2006) 6 step approach to thematic analysis (1).

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Results

The in-ear translation devices exhibited certain limitations primarily in terms of accuracy and connectivity. Ultimately a range of errors and inconsistencies had the potential to affect the accuracy of the language interpreting/translation process. However, students found some features of the interpretation device useful.

Conclusions

Overall, there was a general consensus that using an interpreter was preferable to using a technological device/app at this point in time. However, additional research is required to investigate the possibilities of using interpretation devices as a way to overcome language barriers within clinical medical examinations and healthcare interactions in general.

2021151

Supporting Graduate Nurses Through a Bespoke Orientation Programme

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Dr. Michele Hardiman, ADON Practice Development, Research and Education, Galway Clinic

Objectives

Aim: To develop a programme to support graduate nurses to become confident professionals in the delivery of person-centred and world class nursing care.

Objectives

• Evaluate a person-centred nursing graduate programme delivered in an acute hospital through focused facilitation of a healthful culture.

• Review and critically appraise current literature related to the transition period from student nurse to staff nurse.

• Examine the perceptions of those who have participated in the graduate nursing programme and thematically analyse the findings.

• Develop the graduate programme further to equip the mentor with necessary facilitation skills to enhance action learning in the midst of practice.

Method

An integrative literature review was conducted in order to synthesis research on the transition period from student nurse to nursing graduate staff nurse. The literature was critically appraised to identify gaps in the research related to nursing graduate programmes.

A bespoke programme of facilitation was developed utilising the three principles of practice development; enlightenment, empowerment and emancipation (West, 2013). The aim of the programme was to support, mentor and enable newly qualified nurses to develop both confidence and competence in their knowledge and skills while also undertaking professional development activities. The methods utilised landed themselves to person-centred research principles whereby both the participants and facilitator were co-facilitators of the graduate programme (McCormack et al., 2017).

The graduate programme was evaluated and re-established to change the teaching pedagogies and methods of delivery focusing on action learning, transformational learning and a move from didactic teaching strategies. The graduate nurses created their own curriculum of learning by completing a self-assessment of knowledge and skills. They also engaged in clinical supervision in practice and focussed on their own personal and professional development.

The participants of the programme engaged in creative reflections throughout the period of transition using active learning (Dewing, 2008). They analysed their progress during the transition period utilising poetry and creative design.

Purposeful sampling occurred for the semi-structured interviews. The interviews were conducted in order to ascertain the perceptions of the newly qualified and their experience of the graduate programme. The semi-structured interviews were completed by a person independent of the study. The data was transcribed, separated into concepts and codes, thematically analysed to determine the impact of the programme to the nurses' professional development.

Results

The themes which emerged from the data included:

• Confidence in Providing Care

• Time to Flourish

• Supportive Practice Environments

The graduate programme illustrated that there are higher levels of retention of those nurses who were supported throughout this programme, with over 63% of those remaining employed within the organisation. Nurses stated that they felt more confident in their practice and had developed enhanced skills in a protected, supported environment.

Conclusions

Transition from student nurse to staff nurse programmes are key to improving the retention of newly qualified nurses (Whitehead et al., 2015). In order to support these nurses a mentoring, support and teaching programme should be developed, including supernumerary status to up-skill and enhance knowledge. These programmes enables to participants to develop their confidence and competence, leading to greater patient safety and satisfaction. Movement towards the enhanced role of the nurse has identified further need for transition programmes to meet service needs (DoH, 2019).

The mentor assigned to facilitate the learning of the graduate nurse during this transition period must also be supported. They must consciously engage with the nurse as a colleague, overseeing their work but also facilitate the persons' learning. Research has shown that though hospital units are extremely busy, this can be the best opportunity for a nurse to learn (Manley et al., (2009), Durrant et al., (2011), Smith (1994) and Rycroft-Malone (2004)). In order to do this, the mentor must also be supported and equipped with the appropriate knowledge and skills to assist the newly qualified nurse to reach their learning outcomes and overall potential.

2021152

Facilitating and enabling a person-centred culture through facilitation on the run

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Objectives

Aims and Objectives

• Develop work-based facilitators of person-centred practice through the enhancement of facilitation skills to enable team working and staff well-being.

• Explore values and beliefs of nurses within the workplace, agree a shared purpose and develop action plans through shared decision making.

• Sustain and support values project through a Community of Practice

• Examine what is happening in practice, collaborate and listen to patients and their families and identify gaps between what we say and what we do.

• Commit to learning in and from practice

• Celebrate success and continue momentum

Introduction

Effective Work-place cultures cannot be changed by any individual alone and must involve the Collaboration, Inclusion and Participation (CIP principles) of all stakeholders (McCance and McCormack, 2017 p.50). The hospital set out to create conditions whereby clinical leaders could look inward at their own culture, enabling them to develop as Critical Allies and Critical Friends (Hardiman, 2017) of their own colleagues. The novice facilitators were supported through facilitated workshops and a weekly community of practice meeting, known as a huddle. The engagement process in this programme was initially slow, however this was anticipated and planned for. Our reflections concur with the PD literature that cultural transformation will only happen in an organisation where there is on-going leadership support (Cardiff, 2014). We intentionally use the person-centred practice framework (McCormack and McCance, 2017) to guide each element of our nursing practice. We have learned by doing this, we pay extra attention to our culture, thus enabling us to reflect on what we do, how we do it and how we feel about it. This has in turn focused our attention to becoming leaders and facilitators of others and resulting in human flourishing.

Method

The initiative commenced in 2016 and builds on an action research project focused on enabling and supporting a person-centred culture.

The programme commenced with facilitated workshops to explore values and beliefs and vision for care and for the workplace. Work-based Facilitators were provided with resources and practical skills for novice facilitators of person-centred learning. The new work-based facilitators who were CNM1 and CNS in the hospital agreed to take a lead role within their own practice environment. This role was enhanced and stabilised at a weekly 30 minute Community of Practice huddle. Progress was slow initially as the new facilitators developed an understanding of person-centredness and how to facilitate rather than tell colleagues what to do. Evidence based tools e.g Claims Concerns and Issues (Guba and Lincon, 1989); Person-centred practice Inventory Staff (PCPI-S) (Slater et al 2017) are used to continually measure and evaluate against the Person-centred practice Framework (McCormack and McCance 2017). This informed action plans for each individual area. Workshops are organised to augment weekly community huddles every 10 weeks with guest co-facilitators attending from

other areas. This provides an opportunity to work with nurses from HSE and discusses shared values relating to nursing practice.

Results

The development of person-centred cultures requires focused facilitated actions. Novice facilitators can be developed within the workplace to achieve this goal if supported to do so (Hardiman and Dewing 2014).

Since commencing the programme greater awareness of unique and individual needs of patients and their families have been incorporated into everyday engagement. Focus on the four outcomes for Person-centred Care (1) Satisfaction with Care (2) Involvement with Care (3) feeling of well-being (4) Creation of a healthful culture (McCormack and McCance 2017) are being measured and collated as part of the evaluation of the programme. Using evidence based tools such as the Workplace Cultural Analysis Tools (McCormack et al 2009) we are observing and recording how we are 'living' our values and vision and how this impacts on the patients in our care. Discussing as we discover new understandings how we can address and transform to achieve human flourishing.

• Feedback from patients on the patient Experience forms distributed both on paper and electronically is excellent >97% patient satisfaction.

• Negligible >0.01% complaints relating to nursing in 2017.

• Patients and families involved in all care decisions/ care plans in nursing. This is enabled through Person-centred focused language and care plans (electronically); bed-side handover and managers rounding.

• The language used in practice is thoughtful and person-centred and staff are reminded (by each other) to avoid using words that can be misinterpreted or may offend e.g. CABG (pronounced cabbage instead of Coronary Artery Bypass Graft); Non-Compliant (to describe a patient making a choice not to accept treatment). Facilitators work with staff to highlight the impact of language rather than chastise.

Conclusions

The work-based facilitators are becoming embedded into everyday practice which has the effect of 'normalising' facilitation of person-centred practice. The workshops have helped nurses explore previously hidden or unspoken concerns which are supported by the team. Recognising that as nurses we can get busy and distracted which can be a barrier to living our values. Nurses need to ensure we take time for mindfulness and allow ourselves the capacity to be compassionate in our interactions with patients and also with each other. Examples of projects

• One team initiative to support nursing though a 5 minute huddle refocuses the team to care about each other on busy days has now been extended to all in-patient units.

• The WBF group have just been accepted for publication for a collective reflection of the WBF project in a peer review journal.

• Strong leaders have emerged that are using evidence in practice and have enabled colleagues to examine how to turn a bad day into a good day.

• One outcome of the project and the culture change that continues to emerge has attracted nurses to apply for roles in the hospital. We currently have no nursing vacancies, lifting and reducing other pressures associated with low staffing.

2021153

Taking a virtual "Team Based Learning" approach to interprofessional PDoC education

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Short Paper

Introduction: Prolonged Disorders of Consciousness (PDoC) is an umbrella term for three conditions – coma, the vegetative state and the minimally conscious state. These conditions, caused by severe brain injury, are associated with profound motor, cognitive, sensory and functional deficits that require full and continuous care (Moretto et al. 2014). The complexity of their care and rehabilitative needs is complicated further by social, ethical and legal contexts. Our own research has highlighted some urgent training needs for health care professionals (HCPs) working with this patient group – including clarification around the debates concerning the diagnosis and care of these patients, communication with families and best interests' decision making (Latchem et al., 2015; Kitzinger and Kitzinger 2016;2018 Wade and Kitzinger 2019).

In a bid to address these learning needs, we (the Coma and Disorders of Consciousness Research Centre) developed a 'team-based learning approach' to a blended online learning course consisting of 8 online interactive self-study modules accompanied by 5 'real-time' virtual seminars and 5 tweet chats, addressing particularly, the social, ethical and legal components of PDoC care and treatment. Here we explore our evaluation of this course during delivery in 2019 and 2020.

People in a PDoC require the care of an extensive multidisciplinary team – a team that learns to work particularly closely together because the traditional roles their individual professions hold and the treatments and care they offer are heavily disrupted by the level of impairment people with PDoC have. The impact of cohesive multidisciplinary team working on patients' rehabilitative outcomes is extensively reported.

Education has enormous capacity to support such cohesion. For the learner, team-based e-learning which is undertaken with colleagues can enhance the contextualisation of learning through the discussion of lived real-life situations and offer the direct application of new knowledge (Booth et al. 2009).

Our PDoC course was originally developed for the interprofessional education (IPE) of pre-registration HCPs at Cardiff University and always multidisciplinary in nature. However the full multidisciplinary team was not represented by the professions within the IPE module and so, in refining it for continuing professional development, a broader multidisciplinary team became its core audience. The course was therefore designed and re-structured to maximise learning opportunities for working HCPs and to facilitate whole teams to learn together.

Methods: Here we reflect on our experience of designing and delivering a continuing professional development (CPD) online course and evaluate the learning achieved by multidisciplinary teams and individual HCPs involved in providing PDOC rehabilitation and long-term care. Our evaluation starts by describing the building blocks of a 10-week online course combining asynchronous, interactive self-study, 'real-time' online seminars and tweet chats with HCPs across the UK and the Republic of Ireland. We discuss how we tailored learning materials for the wider CPD context, maximised the participation of multidisciplinary learners and teams before providing a mixed-methods evaluation of the learning outcomes of the health care professionals who took the course in 2019 and 2020. The evaluation draws on continuous feedback collected during the course (via discussion in seminars, twitter comments, tweet chat transcripts, direct messages and emails), spontaneous feedback from learners reflecting on the course in the final online seminars, interviews with learners and feedback forms.

Results: 222 people registered for courses in 2019/2020 from 65 health care organisations across the Republic of Ireland, Wales, England, Scotland and Northern Ireland. COVID-19 disruption in 2020 meant that while some

learners completed the course in April (and filled in the feedback forms then) as originally scheduled, others had to withdraw (due to workload, redeployment or sickness). Although 64 people completed feedback forms, fewer still completed initial course data to enable pre and post course self-rated knowledge. However, self-rated learning was assessed across 5 domains, including knowledge of PDOC conditions, core allied health professional involvement, PDoC related medico-legal practice and confidence relating to speaking with families. Pre and post course scores demonstrate improvement in all of these areas of approximately 15-30% - however the measures used were not particularly sensitive and as completion rates were heavily impacted by COVID-19 the quantitative measures are of limited use in comparison to the wealth of qualitative feedback captured.

In comparison, qualitative feedback provided an 'across the board' positive response to the course in terms of accessibility and the range, quality and engaging nature of the learning materials. Participants particularly commented on how materials suited all learning styles and how materials which brought new perspectives (such as vox pops with a range of professionals, arts based interpretations of research data and research exploring the role of hotel service staff within PDoC care) engaged learners who considered themselves 'expert' in the field. Participants reported key learning and 'take home messages' which they felt had impacted their practice – such as improved understanding of how to communicate with and involve families, best interest decision making, law and ethics. Critically, connections between learners was key to the learning experience for many, with the design and set up of the course encouraging (and supporting) existing teams to learn together. Feedback on the importance of seminars and tweet chats focussed on the need learners had to discuss some of the particularly challenging aspects of PDoC care with other professionals and course tutors and highlighted how much learners appreciated knowing what was going on in other similar units both to share knowledge and also so they felt less alone with feelings and problems they faced.

Conclusion: Despite disruption from COVID-19, providing a blended online course with high quality interactive materials matched with 'real-time' seminars attracted an extensive range of health care professional teams from across the UK and Ireland. For those able to complete the course, material interactivity and variety was key to making learning accessible to the whole team. Alongside direct learning about the more challenging medico-ethical-legal aspects PDoC care, the opportunity to meet with and discuss key challenges with other professionals across the UK was seen as a hugely helpful component of the course.

2021154

Interprofessional Education – Initial perspectives of a first-year student nurse

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Short Paper

Before embarking on my degree in Adult nursing, I had no professional caring experience and my views around providing care as a nurse did not extend to include other disciplines. The first six weeks of the course have expanded my knowledge and understanding of the wider healthcare team and where the adult nurse fits within this. This work aims to explore how the interprofessional education strands within my university programme have helped me to begin to develop a greater appreciation of the relationship between interprofessional working and the role of the nurse.

At Cardiff University, the interprofessional education (IPE) themes are common across all healthcare disciplines (except midwifery) within the School of Healthcare Studies. These themes are interwoven throughout the academic modules within each Programme. At level 4, the focus is on developing a sense of what it means to be a professional within a particular healthcare career pathway. Through actively defining the role of the nurse, I was able to get a greater sense of the role and responsibilities. However, one role I had not considered was the role of interprofessional working and how this linked with my roles and responsibilities as a nurse.

Alongside the programme specific elements of IPE, there is also an online platform which over the course of my programme will help me to develop my interprofessional working skills and relationships with other disciplines within the School. Within the first week of my studies, the IPE programme was launched via Zoom. With over 750 students from 9 healthcare disciplines including 3 nursing fields, midwifery, diagnostic imaging, occupational therapy, operating department practice, physiotherapy, and radiotherapy & oncology, I did have reservations. I was already finding study within a large group difficult using the online platforms and I was unsure what I would be able to gain from a learning opportunity that included even more students from a more diverse background.

The IPE session was split into two parts. The first part provided background information through a keynote presentation and as participants, we were encouraged to ask questions and engage in discussion using the virtual chat room throughout this section. This allowed me to begin to get a sense of other disciplines and their perspectives of IPE. The second part of the session involved us taking part in a small group exercise which was not focussed on healthcare but required us to work together to develop a group 'pitch'. With the focus away from healthcare, I felt more confident, as I could relate the task to my own work and life experiences. This enabled me to gain a deeper understanding. Having the opportunity to share ideas and listen to the thoughts of others, I believe that we started to build working relationships that can be developed further in the future. Seeing how the problem was approached by different people from different disciplines helped me to recognise that there are wider solutions beyond a nursing perspective. Within the healthcare context, this highlighted the fact that we all have an important part in supporting patient needs.

Taking this back into the profession specific learning, I have been able see how IPE and the wider interprofessional working agenda is intrinsically part of the Nursing and Midwifery code (2018). I wanted to understand more about what this meant in practice and when I undertook a care planning exercise I became acutely aware that the patient would have needs that go beyond the role of a nurse, including physiotherapist, speech and language therapists, nutritionists and many others. As I explored the patient's journey, I was able to see my part of their journey and the role I need to undertake to assist them to the next appropriate stage. Through gaining a better knowledge and understanding of the roles of other professionals, I will be better placed to signpost the patient to ensure that their needs are being met. This early dip into IPE has already taken my learning on an unexpected route. It has shown me the importance of working together to achieve the best outcomes for the patient, ensuring that holistic, patient-centred care is at the heart of my practice. I am looking forward to seeing where the next two and half years take me on my interprofessional journey.

2021155

What are postgraduate diploma students' views of team-based learning (TBL)?

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Objectives

Team-based learning (TBL) is an active and collaborative learning pedagogy that has been used as a whole curriculum approach for the Master of Pharmacy (MPharm) programme at a UK University since 2012. The team-based learning student assessment instrument (TBL-SAI) is a validated tool which has been used previously to assess student satisfaction on the MPharm programme.

TBL was introduced in postgraduate (PG) pharmacy education in the same institution in 2018.

The overall aim of this study therefore was to assess the perceptions of team-based learning in students undertaking the PG Diploma in Clinical Pharmacy (Secondary Care). The first objective was to collect the satisfaction of PG students with TBL using an electronic version of the TBL-SAI. Quantitative and qualitative analyses of the findings were carried out with a view to make recommendations about how TBL could be improved in PG pharmacy education.

Method

The TBL-SAI was chosen as the instrument to collect the views of PG students. Ethics approval was granted by the Chair of the Biomedical, Natural, Physical and Health Sciences Research Ethics Panel at the University of Bradford on 04/11/19.

An online version of the TBL-SAI was constructed to be completed in a face-to-face setting. This was undertaken in four face-to-face teaching sessions with between 20-25 students in each group (total of 86 students). The aim of this was to increase response rates. The frequency of each response was recorded, and descriptive statistical analysis using SPSS was performed on quantitative data, while the brief qualitative responses were grouped into themes for ease of comparison.

Results

The response rate for completion of the TBL-SAI was 70% (n=60). The mean TBL-SAI scores for each subscale were all greater than the specified neutral scores, showing that there was a preference for TBL. The mean and standard error of the mean were calculated as: Accountability = 29.7 ± 0.57 (neutral = 24); Preference = 49.2 ± 1.34 (neutral = 48); Satisfaction = 30.0 ± 0.62 (neutral = 27). Themes were generated from the qualitative responses that were received from 20% (n=14) of the participants. The most prevalent comment related to the impact of the group members on the experience.

Conclusions

The TBL-SAI proved an effective method to collect data regarding students' views on TBL. Analysing the quantitative and qualitative data, overall PG students showed a preference to TBL. The study could be improved using focus groups and 1-1 interviews which may provide a better understanding of student motivation and individual learning styles and how this influences TBL preference. It could be that combining TBL with lectures may provide a fairer educational experience for students. Our study shows that TBL is an effective and enjoyable method of learning for PG students and reinforces the concept that careful group allocation is needed.

2021157

Interprofessional Identity in Health and Social Care: A Concept Analysis

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Objectives

Professional identity formation is regarded as one of the fundamental goals of education, leading to professionals that are equipped to function within an interprofessional healthcare environment. However, current education is predominantly organized in an uniprofessional way, with little opportunity for interprofessional interactions. As a result, students learn profession-specific competencies and pursue distinct goals, while they remain largely unfamiliar with the roles, goals, and perspectives of other professions. This uniprofessional education may give rise to false beliefs and stereotypes about a profession that can hinder one to see others' capabilities and unique contributions, thereby hampering interprofessional collaboration and affecting quality of care. Therefore, an investment in interprofessional education, where students from different professions learn with, from, and about each other, is needed. Evidently, the implications of interprofessional education on the professional identity formation of students are increasingly being investigated and has led researchers to presume the existence of an interprofessional identity (IPI). Nonetheless, there are noticeable differences in how this concept is operationalized. An analysis of the characteristics and components of IPI could reduce this ambiguity and aid in the development of educational interventions. Therefore, the literature pertaining IPI was reviewed and the concept was analyzed with the goal of providing a clear and measurable definition.

Method

Walker and Avant's model was adhered throughout this study. Firstly, the possible uses of the concept were investigated and the attributes (key characteristics) were determined by conducting an integrative review of studies mentioning and describing IPI or a synonym. Seven academic databases and Google Scholar were searched until July 2020, in addition to relevant journals, reference lists and citations. This has led to the full-text screening of 75 out of 1334 records and subsequent inclusion of 39 articles. Secondly, the attributes and associated antecedents (conditions) and consequences (outcomes) of IPI were data-extracted and analyzed independently by two authors by use of a coding frame which was developed after a pilot analysis of ten articles. The remainder of the articles were then analyzed deductively and were regularly discussed to facilitate triangulation. The constant comparison method was used to iteratively refine and establish a final list of attributes, antecedents and consequences. An additional concept derivation of 'intergroup relational identity' was required to create a definition. Lastly, illustrative cases were developed and the concept was defined in term of its empirical referents by discussing the measurability of each specific attribute.

Results

Three overarching perspectives were identified that define IPI as either; (1) a social identity, (2) a team identity, or as (3) a role identity. The majority (n=26) of the articles referred to social identity theory when describing IPI, and mostly as a dual identity (n=12). Qualitative analysis led to four categories reflecting (1) the characteristics of IPI, (2) values, (3) attitudes and beliefs, and (4) knowledge and skills. Firstly, the identity is thought to be fluid and dynamic (n=19), context-dependent (n=14), and a reconstruction of the professional identity (n=11) in which professionals share a mental model of teamwork (n=9) and a commitment to a superordinate collective (n=25). Secondly, professionals in collaborative practice are guided by a set of shared values such as respect (n=11), interdependence (=17), equality (n=16), trust (n=7), togetherness (n=4) and patient-centeredness (n=2). Thirdly, interprofessional attitudes and beliefs are fostered, comprising positive attitudes towards team members

(n=12), interprofessional openness and readiness for interprofessional collaboration (n=13), and an awareness of the value of a collaborative team approach (n=6). Lastly, professionals possess a shared repertoire of knowledge and skills pertaining roles and responsibilities (n=18, a mutual understanding of perspectives and the ability to use this knowledge), teamwork and collaboration (n=28, an understanding of leadership, mutual engagement and consensus building, and an ability to apply relationship-building values) and interprofessional communication (n=22, an ability to communicate with different health professionals in a way that supports a team approach). The integration of these categories led to following definition; an interprofessional identity is a fluid and dynamic identity embedded within an individual's professional identity comprising the internalized values, attitudes and beliefs, knowledge and skills shared across different professionals, consequently resulting in the thinking, acting and feeling as an interprofessional.

Conclusions

This study has shed light on the different takes of IPI, which can be attributed to a difference in perspective towards identity. In general, the two most dominant perspectives stem from social psychology (social identity theory) and sociology (role identity theory). Within social identity theory, identity is defined in terms of commitments to social groups, in which there is a predominant focus on intergroup dynamics. In role identity theory, identity is largely defined by the meanings associated with the roles individuals occupy in society. Hence, solely employing social identity theory as a theoretical basis may prove to be insufficient in understanding IPI as it largely neglects important within-individual factors such as knowledge, skills and attitudes, which have been identified as central components of IPI in this study. Therefore, adding role theory in the equation as a complementary perspective, allows identity to be defined in terms of individuals' membership in social groups as well as in roles. This combination of perspectives may enable researchers to investigate and educators to facilitate identity formation within individual students. Accordingly, we advocate such a multidimensional approach in education in which professional identities are (re)constructed through the integration of the knowledge, skills, attitudes and values required for an individual to fulfil the role of interprofessional, as well as develop a commitment to one's own professional community and to a superordinate collective. Our list of antecedents, sorted by individual or group level, and empirical referents could have considerable implications for educational interventions and assessments methods. This list can serve as a starting point for educators in establishing learning conditions that may foster the formation of an IPI. The consequences of forming such an identity on individual and group level have also been presented, although these remain largely hypothetical. Thus, further research is needed into the processes underlying IPI-formation, the antecedents and the resulting behavior.

2021158

The Great Escape: Using gamification to develop interprofessional education, problem solving and team cohesion through a simulation suite "Escape Room"

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Short Paper

Introduction: Interprofessional education is integral to healthcare training; however, in a dynamic and busy healthcare setting, opportunities for learning in diverse professional teams in a structured post-graduate setting can be limited, and antiquated professional hierarchies can create potential barriers to learning. It is therefore essential to consider innovative and creative approaches to interprofessional education.

In order to address these challenges, an 'Escape Room' teaching session was designed for healthcare education staff within NHS Lanarkshire. Participants were required to complete a series of tasks using simulation equipment under time pressure in order to 'escape' the room. This practical approach aimed to orientate staff to the simulation suite, introduce them to the simulation team and equipment and ensure confidence before working as faculty on simulation courses whilst utilising a competitive, problem-solving, "gamification" learning style.

A fundamental objective of the session was to encourage interdisciplinary learning and team-building, where nurses, doctors and allied health professionals worked in integrated teams as well as learning from the diverse faculty.

Description: Participants had 45 minutes in teams of two to complete 24 tasks that involved the use of different simulation equipment. Emphasis was placed on communication, where one candidate was situated in the simulation room and the other separated via a one way mirror in the control room, therefore requiring instructions for specific equipment to be relayed between team members. Afterwards, participants were then given allocated time to consolidate and ensure confidence in all skills with the simulation technician without any time pressure.

The course was delivered during staff induction at the commencement of the academic year. There were 10 participants and 3 faculty members consisting of nurses, doctors and simulation technicians. Both quantitative and qualitative data was collected via a pre- and post-course questionnaire. Quantitative data was in the form of a 5-point Likert Scale.

Results and Discussion: Despite 80% of participants having prior experience using simulation equipment, 40% reported a 1/5 pre-course confidence level of equipment usage, 50% at 2/5 and 10% reported 3/5.

Post-course, 100% of participants reported that it was a useful learning experience, and 100% of participants felt that tasks were an appropriate level of difficulty.

Qualitative data reflected a positive training experience. Participants reported increased confidence levels in using simulation equipment, improved memorability and enhanced interprofessional learning through a practical, problem-solving teaching style and enjoyment of the session.

Conclusion: Overall, the Escape Room created an engaging and enjoyable learning opportunity for participants to improve confidence, team cohesion and problem solving abilities in a highly interdisciplinary setting.

2021159

Use of Team Based Learning in Medical Schools - A case study from Romania

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Short Paper

Background:

Team Based Learning (TBL) is considered one of the most useful means of ensuring student engagement in the learning process and has similar outcomes compared to traditional teaching methods. Since its introduction in Medical Schools during the previous decade, it has been used not for under- and post-graduate teaching.

For the last thirty years, the higher education system in Romania has been in a constant reform. In order to align with the World Federation for Medical Education Standards', medical universities have started a curricular reform in which they also include new teaching methods.

The curriculum in Romanian Medical Schools follows the traditional pattern of preclinical and clinical cycles, while each University is, to a certain extent, autonomous in deciding the theoretical content and clinical competencies necessary for students to complete their training. The minimum number of hours is in alignment with European Union regulations (5500 hours).

The Medical School of the "George Emil Palade" University of Medicine, Pharmacy, Science and technology of Targu-Mures Romania is the only one in the country to provide teaching in a minority language, i.e. Hungarian. The curricular reform has started almost 5 years ago and apart for the content, new teaching methods have been implemented, such as team-based learning, case-based learning and problem-based learning.

The current paper aims to analyze the implementation process for the TBL at the Medical School of the "George Emil Palade" University of Medicine, Pharmacy, Science and technology of Targu-Mures during the period of 2016-2020

Inputs

Human resources

- A dedicated commission for the curricular reform was formed comprising members from the three main domains – general medicine, dentistry and pharmacy, with the aim to develop the framework for the implementation.

- Pilot departments volunteered for implementing the new teaching methods – formal training was provided for these departments

Logistics

- Specific infrastructure for voting was purchased

- Special lecture rooms for TBL sessions were available on demand

Organizational

- Specific commission under direct supervision of the rector with the power to establish rules and procedures for curricular reform implementation

Activities

- Procedure for training session for teaching staff – periodical training organized on demand; a specific post-graduate course with certification in teaching methods developed and implemented.

- Procedure for TBL implementation during lectures – provides general rules for the organization of TBL sessions with emphasis on the number of mandatory sessions for a discipline, the evaluation method – individual and team and the wight these sessions represent from the final grade

- Insuring logistics support for TBL sessions

Participants

For the last two years all disciplines must implement at least one TBL session/7lectures with mandatory attendance and graded evaluation.

Outputs

- Short term – available data from the annual report of the commission states that TBL sessions have been implemented, without any provisions in regards to specific indicators like number of sessions, grading score, etc.

- Medium and long-term – not yet available.

Issues to be considered

- Based on the available data, the TBL teaching method has been implemented in the Medical School of Tirgu-Mures without an a priori or a posteriori assessment of the degree of acceptance from the stakeholders involved – faculty and students.

- Formal training is available on demand, but is not mandatory

- No clear procedure for TBL sessions content or organization available, apart from general principles

- No data available on the implementation process in different disciplines

- TBL sessions are used as a form of evaluation

- TBL sessions are mandatory

Recommendations

- Audit on the stakeholder's perception regarding the teaching method – for example by means of a SWOT analysis

- Impact assessment – student's outcome – residency program insertion, level of knowledge pre- and post- TBL session

- Insert impact evaluation in the curricular reform strategy

Conclusion

Although the TBL implementation has started in the Medical School of the "George Emil Palade" University of Medicine, Pharmacy, Science and technology of Targu-Mures and has proved successful based on process indicators, further data and analyses are needed in order to assess the impact and level of acceptance for faculty and students.

2021160

Effectiveness of Interprofessional Education for undergraduate students in nursing and medicine: a systematic review

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Objectives

The delivery of effective, high-quality patient care demands collaboration between health care professionals, and research has been suggested interprofessional education (IPE) as an effective way to improve this collaboration. In particular, collaboration between nurses and physicians is very common in clinical settings, which implies the need to focus on IPE for nurses and physicians to ensure their effective collaboration. However, there is a lack of evidence to evaluate the effectiveness of structured IPE for nurses and physicians.

This study was aimed to assess the effectiveness of IPE interventions for undergraduate students in nursing and medicine compared to no education intervention.

Method

A literature search was completed with assistance of a professional academic librarian in multiple databases including Cochrane, MEDLINE, CINAHL, Embase, ProQuest, clinical trials, and grey literature with no restriction on the language of publication up until December, 2019. At least two review authors independently assessed the eligibility of potentially relevant studies. For included studies, at least two review authors extracted data and assessed study quality. A meta-analysis of study outcomes was not possible due to heterogeneity in study designs and outcome measures. Consequently, the results were presented in a narrative format.

Results

This review included 9 studies measuring the effectiveness of IPE interventions compared to no educational intervention for undergraduate students in nursing and medicine. Studies indicated that IPE interventions for nursing and medical students produced positive outcomes as followings: attitude in resuscitation skills training and in ethical discussion, confidence in clinical skills training, and attitude and knowledge in teamwork training. However, no study reported significant positive changes in students' skill in resuscitation, clinical skills or teamwork skill.

Conclusions

Findings suggest that more studies with rigorous design are needed to establish IPE for undergraduate students in nursing and medicine. In particular there is a need to elicit findings related to the effectiveness of IPE on students' performance and/or skills, and to establish IPE strategies to ensure these effectiveness in nursing and medical students, as well.

These studies will provide evidence at higher level to support the effectiveness of IPE on behavioral competencies of students, which may be expected to have translational impact of IPE for students into clinical settings.

Supporting Documents

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