AUDIENCE RESPONSE TO PROMOTE ACTIVE LEARNING IN A FLIPPED CLASSROOM

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INTRODUCTION:
Innovative teaching methodologies are slowly replacing Didactic lectures using PowerPoint. Flipped learning is a pedagogical approach wherein direct instruction moves from a group to an individual learning space, and the Flipped Classroom becomes a dynamic, interactive learning environment delivered by Lecture flipping with the Classroom used for active learning. Using Audience response system between the two components harnesses the use of technology to capture the impact of the strategy.

METHODS:
In this study, 4th year Medical students watched prepared narrated video presentations in Breast surgery and Oncology, the so-called “lecture flipping” at their own pace and in their own time, instead of a traditional lecture. Thereafter in a “Flipped class room”, students initially took a multiple-choice quiz, using their own web enabled mobile device. MENTIMETER, a web-based audience response system was used as a platform and the classroom response was recorded graphically as a direct measure of the understanding and retention of knowledge. It provided students with immediate formative feedback, increasing engagement and interaction. Live student feedback was sought through MENTIMETER, using three words to describe the experience generating a Word cloud. The small group facilitated case-based discussion resulted in application of knowledge with real case material. Student feedback of all the components of the Breast Oncology course was sought using a 5-point Likert scale.

RESULTS:
The strategy of lecture flipping promoted self-directed study. The MENTIMETER quiz provided a baseline understanding of the student cohort and individualised formative feedback. “Engaging and interactive” were the most common words generated on the Word Cloud. The case-based discussion promoted reinforcement, reflection and exploration. Written end of session feedback was 4.47 for Video content, 4.4 for Video presentation, and 4.65 for the MENTIMETER quiz on a Likert scale of 1-5.

CONCLUSION:
Audience response can be an adjunct in a “flipped classroom” model. Students move from the lower order foundations of the Blooms taxonomy in their “own time” to the higher order cognitive domains of the taxonomy in the Flipped Classroom with MENTIMETER Quiz successfully adding the elements of feedback and formative assessment.
IMPROVING LEARNING OPPORTUNITIES FOR THE NEW PHYSICIAN ASSOCIATES

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INTRODUCTION:
With an ever increasing demand on the NHS, healthcare practitioners have expanded to include roles previously reserved for the medical profession. The Faculty of Physician Associates defines their role as “a new healthcare professional with the knowledge base to deliver care and treatment under defined levels of supervision”. However, unlike the medical profession, physician associates (PAs) are required only to undertake 40 hours of Continuing Professional Development annually and a revalidation examination every six years. There is currently no compulsory nor advisory portfolio, curriculum or organised Trust-level teaching programme post qualification to maintain or develop professional competency.

METHODS:
All 6 PAs employed at Croydon University Hospital (CUH) consented to take part. An organised teaching programme was devised with the Post Graduate Education Centre to provide a one hour weekly teaching session between January-April 2019. Two questionnaires were supplied to each PA, one prior to the teaching programme commencing and a second after its completion.

RESULTS:
None of the PAs had ever received formal teaching at CUH nor any other Trust they had previously worked at. 3 of the 6 PAs reported feeling slightly dissatisfied, 2 moderately satisfied and only 1 extremely satisfied with their current job. 4 PAs felt somewhat valued, 1 PA felt undervalued and 1 PA felt moderately valued. The most reported barrier to satisfaction levels was the lack of an organised teaching programme and all 6 PAs mentioned that dedicated teaching would improve how valued they felt. Before completion of the teaching programme, 2 PAs left the Trust to take a job elsewhere. Of the remaining 4 PAs, all reported that the teaching programme was extremely enjoyable and useful for their everyday job. Job satisfaction and feeling valued improved following the teaching programme.

CONCLUSION:
A dedicated PA teaching programme not only improves the knowledge of these new healthcare professionals and their ability to succeed as a part of the multi-disciplinary team but also greatly improves satisfaction and thus retainability within the NHS. This simple yet very effective project highlights the need for The Faculty of Physician Associates to produce national guidance strongly recommending individual Trusts provide dedicated PA teaching programmes.
As a large teaching organisation, University Hospitals Bristol employs a large rotation of doctors in training. Around twenty percent are taking time out of the workplace due to parental, sickness, bereavement and career/research opportunities.

We felt it was necessary to implement some further support during the break from clinical practice. The resource would support the phased return and Keeping In Touch (KIT) programme as well as supporting the emotional aspects of returning to work.

We held a series of needs analysis meetings before arranging a Southwest conference in 2018 attended by seventy doctors. We arranged a variety of talks and collated information to supplement presentations at the conference.

We collated data pre and post conference which enabled us to determine the relevance of information and where resources needed to be further identified. We also benchmarked the improved ability of planning a return following an increase in knowledge post conference.

The collated data affirmed that conferences were a positive networking event. We identified that much of the information was available however difficult to source and the accessibility of information required improvement. We found that attendees benefitted from the open and honest discussions and we identified that resources were required to normalise feelings returning to work.

We were successful in a bid for funding from Health Education England to develop an online resource hub supplemented with real stories from trainees around our region. We designed the resource as an online ‘support’ network identifying resources relevant to specialty as well as reason for returning. The online resource hub mirrors the key information provided at the conference as well as communicating the stories at the conference and accessing support networks.

We further identified resources over a six-month period for the online resource which range from local Facebook and support groups to Royal College, GMC and BMA guidelines. The resource hub supports these institutions in ensuring resources are easily accessible for trainees.

We commissioned six videos based on real life stories ranging from psychological issues and sickness, burnout and parental leave. The stories are there to normalise feelings and provide advice with accessing support networks.

The resource is accessible at home and has settings for users to recommend and store resources.

Within a short timeframe, we are already able to foresee national trends relating to popularity of resources, where resources are lacking and the demographic of users accessing information.

We have also started to introduce resources to support trainees new to the UK and those considering an Out Of Programme experience.

In future we hope to collate key contacts for all Trusts, which will help improve the relationship and accessibility of information locally for returning trainees.
PEER ASSISTED LEARNING (PAL) IN UNDERGRADUATE MEDICAL EDUCATION: A SYSTEMATIC REVIEW
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INTRODUCTION:
Peer-assisted learning (PAL) is an educational method which is gaining a growing importance in the teaching field, especially in undergraduate medical education. It is meant to be an integration of traditional teaching methods, and it can be described as a approach where some medical students (tutees) learn from other medical students (tutors) with a similar level of education. Students-driven projects based on this new method are recently stepping into scientific literature. Thus, the purpose of this review is to state if the integration of PAL into traditional educational methods helps both tutors and tutees improving their knowledge in the medical area and acquiring new teaching skills.

METHODS:
We performed a systematic review of literature by searching PubMed, Embase and Cochrane Library databases. Our inclusion criteria were studies of any level of evidence published in peer-reviewed journals. Evaluated data were extracted and critically analysed. PRISMA guidelines were applied, and risk of bias was assessed, as was the methodological quality of the included studies. We excluded all the articles with high risk of bias and/or low quality after the assessment.

RESULTS:
We applied the previously described criteria and we included 25 articles assessed as medium or high quality. Most of these studies appeared to support students-driven projects as an educational method, whereas only limited evidence reported uncertainties about PAL being effective for medical education.

CONCLUSIONS:
There is an increasing evidence that PAL acts as an important tool that should be integrated into traditional educational methods, as it is an additional benefit for tutees in learning medical subjects and allows tutors to acquire teaching skills precious for their future career.

Further studies are needed to confirm this evidence.
HOW POPULAR IS EXCEPTION REPORTING AMONG FOUNDATION TRAINEES?

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INTRODUCTION:
In August 2016 there was a phased introduction of new junior doctors’ contracts, as a result of this Exception Reporting (ER) replaced diary exercises. Guardians of Safe Working (GoSW) were appointed to ensure government guidance and processes were adhered to in the Trust. All our current Foundation Trainees (FT) are on the new contract. ER is used by doctors to report when day to day work schedules vary significantly and or regularly. Reports should be submitted when concern arises both regarding safe working ours and education. Although trainees are aware of submitting reports effecting working hours, there appears to be a lack of general awareness around missed teaching opportunities. Analysis of ER in relation of missed teaching opportunities helps to make overall improvement in training experience and falls under the realm of the Director of Medical Education.

As a Trust, the Foundation team suspected FT were under-reporting, specifically for missed educational opportunities. In the last 33 months the Trust has had 89 ER from FT of which 12 are for missed teaching opportunities. We wanted to enquire as to the effectiveness of the Trust provision of ER training, whether the trainees felt supported when reporting and the reasons for not reporting.

METHOD:
A snap shot audit was conducted with all FT in the form of an anonymous questionnaire at foundation teaching. We received 36 out of 88 questionnaires, 41% responded.

RESULTS:
10 FT (3.6%) stated that they had received no ER training although this is delivered at Trust induction by the GoSW. This session is repeated in foundation teaching. 8 FT (2.8%) felt unsupported when reporting. 18 trainees (50%) were unaware that they could ER for missed teaching opportunities, hence none had reported. Of the trainees who had reported 4 of them (50%) felt the ER system was accessible and easy to use.

ACTIONS:
The foundation team plans to change the mode of teaching delivery to ensure it is more interactive with quality assurance lead by the GoSW. They will also choose FT year 2 champions to support their junior colleagues. The team will share the results of the audit with all FT to increase awareness and compliance.

CONCLUSION:
The above actions are to be re-audited by the foundation team in September 2019 which will coincide with the new intake of FT. To increase compliance they will be given regular reminders at teaching around exception reporting so that issues can be dealt with promptly. Overtime this will become embedded into the Trust culture which will be monitored by auditing periodically.
**“I’M JUST RINGING TO GET A REPEAT PRESCRIPTION FOR MY CONTRACEPTIVE PILL DOCTOR”: DEVELOPING AUTHENTIC SIMULATED TELEPHONE CONSULTATIONS FOR MEDICAL STUDENTS.**


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**INTRODUCTION:**

Within normal surgery hours telephone consultations now make up between 10-20% of patient contacts with General Medical Practitioners (GPs) and can, therefore, make up a large proportion of a GP’s daily workload. Although often useful and time saving, such doctor-patient interactions can be fraught with risk. Nevertheless, we feel it is important that medical students receive training in this often challenging form of consultation.

**METHODS:**

Authentic and properly supervised exposure of medical students to GP telephone consultations with real patients can be difficult to achieve in clinical placements. Therefore, we have developed the introduction of emergency telephone consultations within our GP SECO (Safe and Effective Clinical Outcomes) (Williamson et al., 2013) clinics which are simulated GP surgeries organised for our final year students. We have expanded the range of patients presenting to the students in these clinics by using trained, simulated patients who request an urgent telephone consultation with a GP. In doing so we aim to enhance our student’s skills and confidence in conducting telephone consultations.

**IMPLICATIONS:**

This poster will describe the ideas behind this development, the construction of simulated patient telephone scripts, and some of the difficulties and successes we have encountered in introducing telephone consultations into our GP SECO clinic. We hope that our ideas and processes will stimulate and enable others to help students prepare for an often challenging area of primary care medicine.

THEMATICS MULTI-STATION TEACHING IN A DISTRICT GENERAL HOSPITAL

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INTRODUCTION:
The foundation doctor teaching curriculum in our district general hospital mostly consists of sessions delivered by consultants in a lecture-based style. A survey conducted among junior doctors revealed that all individuals within this cohort retained less from lecture-based learning in comparison to interactive sessions such as simulation.

AIMS:
To introduce a regular, thematic multi-system teaching programme for foundation doctors in a district general hospital in North West England, consisting of three themes chosen by the junior doctors and validated by the educational lead.

METHODS:
The programme took place in the hospital education centre during the junior doctors’ protected teaching time. Two sessions were delivered with a third session planned. The specialties were selected following discussion with the foundation year one doctors, supported by the educational lead, and included respiratory gastroenterology and cardiology. The programme was designed by foundation year two doctors and facilitated by consultants, registrars, middle grade doctors and advanced nurse practitioners from that given specialty. The sessions included three stations: a patient review, a practical skills section and a simulation scenario, with each session defined by clear learning objectives. Feedback was collected, asking participants to score (out of 10) their confidence level in dealing with acutely unwell patients on the ward of that specialty, both pre- and post-session, in addition to scoring the session’s delivery and usefulness. Microsoft Excel was used to collate and perform statistical analysis on the data.

RESULTS:
Confidence scores assigned by participants in dealing with acutely unwell patients were significantly increased following both the respiratory (pre-session mean = 6.2 and post-session 8.0, paired t-test p= < 0.0001) and gastroenterology session (pre-session mean = 5.3 and post-session 7.7, paired t-test p= < 0.0001). With respect to learning stations within sessions, mean ratings for usefulness and delivery were: simulation; 9.2 and 9.3 respectively, patient review; 8.4 and 9.0 respectively, and practical skills; 9.0 and 9.2 respectively. In addition, positive written comments were left by the doctors following each session.

CONCLUSIONS:
The thematics multi-system teaching programme is an innovative, new teaching style designed and delivered by foundation year two doctors. The novel approach was found to increase the confidence of foundation doctors in specialties which they had recognised knowledge and skill gaps. Overwhelmingly positive feedback has led to the permanent introduction of the thematics multi-system teaching programme into the foundation year one doctors’ curriculum. Planning and facilitating monthly sessions covering all specialties may provide a more relevant curriculum than lecture-based sessions that are currently in place.
DEVELOPMENT CLUB: AN INNOVATIVE TOOL FOR UNDERGRADUATE EDUCATION OF CHILD DEVELOPMENT ASSESSMENT

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BACKGROUND:

Development assessment is an important skill for clinicians working in child care. As it is usually gained through experience, it can be difficult to teach in a lecture hall. Therefore, medical students can lack confidence in knowledge and practical skills of child development assessment. Innovative techniques are required to help medical students gain this knowledge and the confidence to carry out development assessment in children.

OBJECTIVES:

This study evaluated the effectiveness and quality of a Development Club to improve medical students’ confidence in child development assessment knowledge and skills. Additionally, the impacts and perspectives on participating parents were assessed.

METHODS:

Fifteen final year medical students in their paediatric clinical rotation participated in a Development Club. This involved a half-day session where pairs of students had five twenty minute stations to interact with healthy preschool children and their parents. The students were expected to analyse the four developmental fields and conclude the developmental age of each child. Students provided feedback on levels of confidence in communicating with children, knowledge of normal child development and evaluating child development, using a 5-point Likert scale questionnaire, both before and after the Development Club. The scores were compared using a two-tailed t-test. At the end of the session both students and parents provided feedback on its quality, also by a 5-point Likert scale questionnaire. Additionally, the parents’ questionnaire included a subset of questions to determine their perspectives on involving parents in paediatric medical education.

RESULTS:

Students rated the quality of the experience as an educational, engaging, and motivating way to learn, with average scores of 4.7, 4.8 and 4.7 out of 5 respectively. Average scores of confidence in communication with children increased from 2.3 to 3.1 out of 5, in child development knowledge from 2.3 to 3.3 out of 5 and in child development assessment from 1.9 to 3.3 out of five after the session. Therefore, regardless of previous exposure to children, there was a significant increase in confidence with respect to communication with children, child development knowledge and child development assessment after the session, when compared to before the session (P<0.05). All parents found the Development Club satisfying to be a part of and believed that parents could play an active role in assisting with medical students’ child development training.

CONCLUSION:

The Developmental Club increased students’ knowledge of, and confidence in, assessment of child development. It is an engaging and motivating way to learn. Additionally, parents believe that their presence benefits students and they wish to be involved. Therefore, this may be an innovative way to support medical student education.
IT LINKED LEARNING

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The Problem that we face with learning in the NHS, is that it often occurs in isolation. Great teaching occurs but is hardly ever captured to spread the knowledge. Following a primary secondary care conversations educational group formation in 2016, a strand of work was developed and has grown into the IT linked Learning project which started to harness opportunities presented in line with the GP Forward View and the NHS Long Term Plan to try and bring education to as many people as possible using Information Technology as a true enabler.

This was taken up by a pilot in NE London within the Newham and Tower Hamlets Community Education Provider networks (CEPNs). The aim of the pilot was to identify educational events that we could potentially record for viewing later and then build on this to then livestream events as well as allow future viewing thereby truly bringing live education to a wider audience who would otherwise struggle to attend an event due to time and logistical issues.

The Links that had to be created initially between primary and secondary care educational administrators and then with event coordinators was a challenge in that lots of potential educational events were identified as a rich source of education but the need to cross both primary and secondary care required some detailed work and focused on discussions around what topics would be suitable as well as liaising with speakers to ensure that they would be comfortable with their event being recorded and uploaded for later viewing.

Piecing together the events required some technical challenges to allow them to be of good quality to be viewed later. One of the biggest learning points was the need for a high-quality microphone as well as a video recorder that would allow clear capture of audio which was key to ensuring it would be of use as a recording. With livestreaming the key learning point was to have a capable internet connection. The videos that were captured included creating a link for online viewing initially on YouTube with a view to progress this onto a dedicated platform. Over time there has been development of editing the videos and including the presented slide decks which required a dedicated job role.

Building on this project and having tested out the learning that had occurred, the rollout of this successful pilot has now been extended to all the CEPNs involving primary and secondary care in North East and Central London. The plan is to build, with the lessons learnt from the pilot a source of education involving everything from grand rounds and community events to smaller localised learning events and short video clips dedicated to one to one teaching e.g. examining joints.
INTRODUCTION:
We discuss our 3-year experience in organising an regional surgical competition in conjunction with the Royal College of Surgeons (RCS). Candidates are assessed on basic surgical and laparoscopic surgical skills. Regional winners compete nationally, with Yorkshire candidates winning twice consecutively. We describe our experiences of incorporating competitive learning for surgical trainees.

METHOD:
The annual competition requires collaboration with the RCS, educational administrators and clinical staff as faculty. Standardised feedback forms from candidates were analysed for the previous 3 years.

RESULTS:
Candidates were enthused by the competitive nature, with 100% finding it a worthwhile experience.

The introduction of individualised feedback, viva questions and global rating scales for judging standards were introduced and this change increased an “excellent” score by candidate feedback by 47.5%.

CONCLUSION:
Surgical simulation and competitions allow trainees to refine surgical skills in an enjoyable training environment to comfortably “compare their skills with peers”. Hashimoto et al. has suggested that subjects exposed to a competitive training scenario demonstrated improved dexterity in virtual laparoscopic cholecystectomies compared to controls (1).

With the majority of candidates in agreement that competitive learning is a good way to learn, we feel events like these aid to prepare candidates for selection into higher surgical training.

References
SIMULATION TRAINING TO SUPPORT PHYSICIAN TRAINEES RETURNING TO PRACTICE

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INTRODUCTION:
Many physicians take time out of training and it has been shown that their participation in a return to practice programme increases their subsequent clinical and non-clinical prowess. Simulation training provides a safe and effective learning platform for healthcare professionals to become immersed in realistic scenarios where outcome is dependent upon technical and non-technical skills.

METHODS:
A standardised, one-day, multi-fidelity, interprofessional, simulation training course was developed by an interdisciplinary working party (comprising educationalists and healthcare professionals) and delivered at 4 sites, 1 in each sector of London. The course focused on human factors and patient safety and acute clinical scenarios relevant for physicians returning to practice (assessment of sepsis; management of delirium; management of the acutely ill patient; complex discharge planning; end-of-life care) followed by faculty-led debriefing. Learning outcomes included technical (clinical assessment/management) and non-technical skills (including time management/decision-making/teamwork). A mixed-methods evaluation approach was used to evaluate data from participants before and after training.

RESULTS:
34 participants (36% ST1-2 doctors; 41% ST3+ doctors; 23% nurses) with a median (IQR) time out of training of 23.5 (15.5 - 36) months attended 4 courses. Quantitative analysis showed a pre/post-course increase in candidates’ ability to monitor complex clinical situations (z=-3.0; p<0.01), prioritise actions (z=-2.3; p=0.01), voice concerns (z=-2.3; p=0.01), take on a leadership role (z=-2.2; p=0.01), work effectively with a new team (z=-3.1; p<0.01) and deal with uncertainty (z=-3.2; p<0.01). Qualitative analysis of free text learning outcomes showed 2 main themes for transference to practice (accounting for 62% of responses) of improved confidence and communication and 5 minor themes of reflection, self-care, refreshing clinical skills, managing adverse outcomes and asking for help.

CONCLUSION:
Simulation training was effective in helping to improve clinical competence and confidence for trainees at a time of career transition. The carefully designed standardised format may facilitate expansion of such training into other regions of the country.
ORAL HEALTH TRAINING FOR COMMUNITY PHARMACIES AND PHARMACY STUDENTS: PUTTING THE MOUTH BACK IN THE BODY

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INTRODUCTION: Good oral health upholds general health and wellbeing, reducing preventable incidents and NHS expenditure. Poor oral health can lead to pain, infection and hospital admissions. Prevention is the priority.

The Directorate of Multi-Disciplinary Dental Education (DMDE) within HEE North East delivers oral health training for health and social care teams. Community pharmacies are well placed to support oral health through prevention, and identifying, treating and referring oral conditions, but pharmacists have limited training.

METHODS: Oral health training for community pharmacy teams by DMDE commenced in January 2018, covering:

- Oral health impact on general health
- Giving oral hygiene advice, including fluoride toothpastes and mouthwashes
- Giving advice on pain relief and oral conditions
- Sugar-free medication
- Signposting to NHS dental practices

Courses have been evaluated qualitatively and quantitatively through questionnaires.

A more recent initiative delivered similar teaching to undergraduate Sunderland University pharmacy students in final year, recording understanding before and after teaching.

RESULTS: By May 2019, 89 community pharmacy team members had been trained in 8 sessions. 140 students were taught. Quantitative evaluations confirmed 100% learning outcome achievement for both groups. Figure 1 shows improved student understanding following teaching.

CONCLUSION: DMDE training has enhanced the oral health understanding of pharmacy teams, and thereby person-centred care. DMDE is expanding training to more pharmacy teams and students. Similar training for General Practice has commenced.

REFERENCES:
ACUTE PAEDIATRIC PRESCRIBING: AN EDUCATIONAL QUALITY IMPROVEMENT PROJECT
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BACKGROUND:
Antibiotic resistance is increasing and recognised as a global health problem. Antibiotic stewardship is a vital part of a prescriber’s role but in a paediatric population, antibiotics are sometimes given unnecessarily (Birnbaum, 2003). Antibiotics form a significant cost burden to the NHS (Force, 2002)(Gungor and Bluestone, 2001). A retrospective audit of all paediatric prescribing for acute otitis media in our A&E and Paediatric Assessment Unit for the 6 months following a trainee changeover revealed that over 50% of antibiotic prescriptions were unnecessary based on the documentation in the notes. Several prescriptions were for either a non-guideline antibiotic or non-guideline duration, and trainees reported a knowledge gap (Ettema, Brown and Luepker, 1983).

METHOD:
We performed a structured educational intervention consisting of posters and a teaching session targeted at new juniors in the department. The aim was to educate new junior doctors and refresh nurse prescribers knowledge on the NICE Guidelines for Antibiotic Prescribing for Acute Otitis Media (NICE, 2018). An ARCS(Attention, Relevance, Confidence and Satisfaction)(Keller, 1987) approach to designing the teaching session was employed to utilise trainees intrinsic motivation. This was complemented by departmental posters (Tudge, 1992) to reinforce learning.

RESULTS:
The teaching intervention was evaluated using three methods; pre and post-session self-assessment (using a modified Keller’s Course Interest Survey (Kaufman and Keller, 1994)), post-session feedback, and a later re-audit was planned to assess for cultural change in prescribing. Feedback from learners demonstrated a jump in prescribing confidence and knowledge. This was reflected in generally positive course feedback. A re-audit is planned for later this year.

CONCLUSION:
Antibiotic prescribing is a vital part of a prescriber’s role but there is often a knowledge gap regarding the details. A focussed intervention targeting new, junior staff members improved knowledge and prescribing performance.

Tudge, J. (1992) ’Vygotsky, the zone of proximal development, and peer collaboration: implications for classroom practice.’
A NOVEL EDUCATIONAL INITIATIVE TO IMPROVE PSYCHOLOGICAL SAFETY FOR MEDICAL STUDENTS

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Glasgow Royal Infirmary, Emergency Department

INTRODUCTION:
The Glasgow Royal Infirmary Emergency Department host fourth and final year medical students from the University of Glasgow for 5 week teaching blocks. The Education Team are continually striving to improve both the learning experience and supportive environment, emphasizing that students ask any questions at any time without feeling in any way self-conscious or apprehensive.

METHODS:
We advocate supportive measures with consideration for the emotional and psychological wellbeing of our learners. To achieve this, a google form was created to enable the posing of questions to the Education Team completely anonymously. We provide examples of topics there may be questions about:
1. Do you have any questions with regard to the lecture content?
2. Do you have any questions with regard to cases you may have seen in the clinical environment?
3. Do you require any other clarifications at all or have any other comments?

We also include a free-text option to pose questions on any subject.

CONCLUSION:
100% (3 cohorts) of participants have not experienced this method in other educational blocks and 80.0% find this to be a useful way to ask questions that may otherwise not be asked.

Free-text Feedback
“Great idea for students to be able to ask questions”
“It’s a great service and I’m glad it exists for people who may not want to ask questions in front of their peers or in person if they feel it’s embarrassing”
“Even if no student uses this, it is very important to sustain and retain this platform because every student is different and one never knows when they might use it. Keep up the amazing work”

Given the positive feedback we have received, we submit this as a successful novel educational initiative to provide and promote psychological safety and an increasingly supportive environment in keeping with our ethical educational philosophy.
MEDICAL STUDENT INFOGRAPHICS PROJECT

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INTRODUCTION:
The Emergency Department in Glasgow Royal Infirmary host fourth and final year medical students from the University of Glasgow for 5 week teaching blocks. The faculty are continually striving to develop the educational program and utilize technologies to achieve this.

METHODS:
The Education Team propose that students create informative infographics to aid their education and fill any gaps in knowledge on a subject of their choice from the teaching they receive. They utilize the Canva technology (a free technology) and share designs with their peers, hence facilitating peer learning. The winning design is awarded with a certificate for contribution toward the production of ‘excellent bite-sized educational material’ and all students receive a certificate for participation.

CONCLUSION:
Results from a google survey revealed that 71.4% of students found this project to be a useful tool for learning. Free-text responses:

“Good way to show information and useful tool for revising”

“Good to use another way of learning and learn from other people in turn”

“Fun and creative”

Given the success described, we submit this as a beneficial and resourceful educational method to facilitate learning. The Education Team proactively seeks to improve the learning environment and this is one such method of adapting to novel educational technologies that are cost-effective.
PATIENT EXPERIENCE PROJECT IN THE EMERGENCY DEPARTMENT

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INTRODUCTION:
The Emergency Department in the Glasgow Royal Infirmary are continually striving to improve the environment for our patients and the students who rotate. To facilitate this goal, we ask students to gather feedback from patients on their ‘experience.’ The department hosts medical students from the University of Glasgow for 5 week teaching blocks during which they receive a presentation on the benefits of engaging with quality improvement projects and on reflecting on patient feedback.

METHODS:
Students ask patients to complete a written survey (taking <1 minute) to capture their impressions of their journey through the ED. Students are motivated by obtaining a certificate of achievement for participation and with a competition element to the project; those who gather the highest number of feedback forms are rewarded for ‘excellent contribution to QI in the ED.’

CONCLUSION:
Three cohorts of medical students have participated in the project with an online google survey revealing 83.3% would recommend this to peers and 68.4% found this a useful way to expand their knowledge of QI projects. Free-text feedback revealed:

“It is good to see how patients generally feel about their time in ED and nice to see some nice feedback despite the media’s poor portrayal of ED’’

“Good to know what and how patients feel about how their managed and treated’’

“Being able to get involved in a QI project’’

Given the active engagement in the project and positive feedback obtained, we propose it is as a beneficial educational method for students to develop an understanding of feedback mechanisms, to contribute to the ED system and to reflect on patient emotions in a sometimes stressful and bustling acute setting.
DEMEC 2019 posters : Category 2. Teaching and facilitating learning

2-17

WHO CARES? WE DO...
Brown E*, Burns J & Taylor S
Glasgow Royal Infirmary, Emergency Department, 84 Castle Street, Glasgow, G4 0SF

INTRODUCTION:
The Emergency Department in Glasgow Royal Infirmary host final year medical students from the University of Glasgow and we utilize a broad range of educational methods to enrich their learning experience. The aim of our CARE (Compassion, Act, Recognize, Everyone) project is to teach medical students to increasingly recognize compassionate staff members (medical and non-medical) in the workplace and develop reflections on qualities that they aspire to for future practice.

METHODS: Students are provided with CARE forms that pose the following questions:

1. What was the nature of the compassionate event?
2. What difference did it make to the parties involved?
3. What did you learn?

CONCLUSION:
A google survey revealed that 100% of students enjoyed the participation in the CARE project, finding it to be a beneficial learning experience. When asked specifically what was learned, free text options revealed:

“Importance of compassion”
“Healthcare staff do a lot more than conventional treatments for patients. They go above and beyond”
“To look for and appreciate the small things that are done that can make a big difference for patient experience and to incorporate that into my own practice”
“When you look for kind acts by staff, you see many more”

Staff that receive special mention on CARE forms are awarded with a GREATIX certificate and we highlight this to educational supervisors, supporting colleagues in their professional development. Given the above success, we propose this as an innovative learning resource and a beneficial teaching strategy for developing self-awareness for compassionate and reflective practice in medical students.
DEMEC 2019 posters : Category 2. Teaching and facilitating learning

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DEVELOPING INTEGRATED, ON-LINE, CASE-BASED RESOURCES FOR QUEEN’S UNIVERSITY BELFAST THIRD-YEAR MEDICAL STUDENTS ON THEIR GENERAL MEDICINE PLACEMENT

Callaghan J*, Ditedu T.G*, Trimble M1, Harbinson M2, Thompson C3

*Year 3 medical students; 1 Clinical lecturer; 2 Senior lecturer, Centre for Medical Education, Queen’s University Belfast; 3 E-learning Developer, School of Medicine, Dentistry and Biomedical Sciences, Queen’s University Belfast, 97 Lisburn Road, Belfast, BT9 7BL

OBJECTIVE:
In the Year 3 general medicine placement, teaching is devolved to staff in the 5 hospital trusts across Northern Ireland. Student feedback has highlighted the need to provide a standardized collection of easy to access, e-learning materials covering common clinical scenarios, and this is what we aimed to do. The online resource, which was co-produced by both students and clinical educators, also aimed to develop good clinical reasoning skills and provide a framework that enables students to navigate their way from generating a hypothesis to making an accurate diagnosis.

METHODS AND METHODOLOGY:
This project was part of a Summer Studentship in the Centre for Medical Education. We devised some realistic scenarios based on common clinical presentations which formed the foundation for each case. The cases were written using different learning resources including textbooks and appropriate guidelines. Input from specialist consultants was invaluable in ensuring the cases were up-to-date and clinically accurate. The scenarios featured information which generated various possible differential diagnoses and formed the basis for learning points made later in the cases. The cases adhered to a standard format, beginning with the scenario, followed by sections on hypothesis generation, hypothesis testing, investigations, deciding on the most probable diagnosis and then discussion of treatment options. Students were encouraged to follow a specific diagnostic strategy. Treatment recommendations were based on National Institute for Clinical Excellence and other relevant guidelines.

The cases were developed as a word document and when completed placed on an online learning application (Articulate Rise©) which is easily accessed through the Queen’s medical education portal. This application allowed students to interact with the diagnostic process. The resources are available both in this online format and as a downloadable pdf. Students used the cases for self-directed study. They also then formed the basis for ‘flipped-classroom’ sessions with clinical tutors during hospital attachments.

RESULTS AND CONCLUSIONS:
13 cases, covering 5 disease presentations were available on the medical education portal by the August 2018. Based on feedback received so far, the cases were very well received. From a pilot survey that asked whether students found the cases beneficial to their learning; there were 58 respondents; 81% of whom either strongly agreed or agreed that the cases helped them learn.

We used digital technology to make these cases engaging and easy to use. The cases not only developed students’ knowledge of some common medical presentations, but also facilitated learning by providing them with a logical framework they can use when presented with any clinical scenario.
Medical Ward Based Educators: The New Medical Speciality Within Our Midst?

Campion, S *, Lewington AJP

Undergraduate Department of Medical Education, Leeds Teaching Hospitals Trust, Ashley Wing, St James University Hospital, Leeds, LS9 7TF

Medical education is continuously changing through initiatives to enhance the medical students’ learning experience. In some curriculums, there has been a move away from didactic classroom-based teaching to more clinical exposure-based learning, where the knowledge transfer is supported through timetabled teaching sessions delivered by clinicians within designated consultant-led teams. This shift has been introduced to enhance the students’ experiential learning, encouraging them to learn through experience and reflection. However, the increased clinical exposure places increasing responsibility on already over-stretched clinicians. In some cases this has resulted in a poor learning experience and a lack of essential senior mentoring.

In 2018, following a review of student feedback at Leeds Teaching Hospitals Trust, we noted ongoing difficulties with meeting the educational needs of students in particular clinical environments. This provided an opportunity to improve the students’ learning through the development of a new medically trained Ward Based Educator (WBE) position. The medically trained WBE would work with specific clinical placement leads, identifying the areas of the placement where improvement was needed and develop appropriate solutions using a Plan-Do-Study-Act approach.

One year on from establishing the medically trained WBE role, we have compared the medical student quality metric feedback data with the previous year’s data. The feedback covered the seven recognised domains, “Orientation and induction”, “Facilities”, “Learning environment and support”, “Delivery of scheduled teaching”, “Opportunities for learning and clinical experience”, “Feedback and assessment” and “Overall rating of attachment”.

There was a statistically significant increase in student satisfaction in the following domains “Learning Environment and Support” and in “Opportunities for Learning and Clinical Experience” in 2019 compared to 2018 in the placements the medically trained WBE supported (Table 1).

<table>
<thead>
<tr>
<th></th>
<th>Learning Environment and Support</th>
<th>Opportunities for Learning and Clinical Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2018</td>
<td>2019</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>56</td>
<td>48</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>0.810</td>
<td>0.911</td>
</tr>
<tr>
<td><strong>Variance</strong></td>
<td>0.011</td>
<td>0.004</td>
</tr>
<tr>
<td><strong>P (two-tail)</strong></td>
<td>0.049</td>
<td>0.029</td>
</tr>
</tbody>
</table>

Table 1

The initial analysis of the quality metrics and the free text medical student comments show that the appointment of a medically trained WBE has had a significant improvement in the quality of education delivered to medical students over a 12-month period. Further work will need to be performed to demonstrate whether the improvements can be sustained and how to extend the role further to enhance the medical student experience.
SURVIVE AND THRIVE: PILOTING A WORKSHOP TO ENHANCE RESILIENCE OF DOCTORS IN EARLY TRAINING
Crowe, K*¹, Holt, N², Hegde, R²
¹ Clinical Teaching Fellow, ² Consultant Psychiatrist Older Adult Liaison, Foundation Programme Director - Medical Education Department, University Hospital Monklands, Monkscourt Avenue, NHS Lanarkshire, ML6 0JS.

INTRODUCTION:
Stress-related burnout in medicine is being recognised with increasing prevalence and impact¹,². Burnout has organisational ramifications in terms of finance, workforce recruitment and patient safety as well as the cost to individual clinicians³⁵. Work-place based changes and psychological interventions can reduce stress amongst individuals, thus improving wellbeing and performance⁶. Resilience is the individual’s ability to thrive on challenges⁶.

METHODS:
Following on from NHS Education for Scotland’s ‘Thriving in Medicine’ work, a resilience training workshop was piloted with Postgraduate Year 1 doctors (PGY1) in a medium-sized district general hospital⁷. The aims were to provide insight into the emotional demands of working within medicine, and provide a framework to manage this.

The workshop consisted of three, one-hour modules linked to the UK Foundation Programme curriculum. These explored the relationship between stress and workplace functioning, pre-existing concepts of resilience, personal challenges and assessments of individual resilience. Frameworks were developed using a combination of peer discussion and self-reflection, enabling PGY1s to create a personal toolkit to thrive.

RESULTS:
Fourteen PGY1s attended, with 12 providing feedback. Sixty-four percent felt the modules had changed how they responded to stressful work events and 78% felt it should be run for all PGY1&2 trainees. Written feedback revealed peer discussion, encouragement of self-reflection and creation of a ‘safe space’ for these explorations were the most valued aspects of the workshops. Feedback indicated further tools to develop individual resilience strategies, and group work analysing negative thoughts would be valued.

IMPLICATIONS:
The next steps are to adapt the modules according to feedback and pilot these across NHS Lanarkshire University Hospital sites. Further evaluation of the impact of these workshops on the doctors’ work experiences will be carried out in the form of qualitative analysis of focus groups and completion of validated Brief Resilience Scales.

REFERENCES:
DEMEC 2019 posters : Category 2. Teaching and facilitating learning

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EVALUATION OF AN INNOVATIVE MULTI-SECTOR PRE-REGISTRATION PHARMACIST TRAINING PROGRAMME IN WALES

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¹ Health Education and Improvement Wales, Ty Dysgu, Cefncoed, CF15 7QQ, ² CUREMeDE, Cardiff University, Cardiff, CF10 3AT

BACKGROUND:
Following evaluation of the initial pilot of a multi-sector pre-registration training programme in North Wales, this unique training scheme was extended across Wales. A number of pre-registration pharmacists in Cwm Taf, Betsi Cadwaladr and Hywel Dda University Health Boards were exposed to hospital, community and primary care pharmacy environments, with varying durations/structures in the training year 2017-2018.

OBJECTIVE:
To evaluate a unique pharmacist pre-registration training programme, whereby trainees are exposed to hospital, community and primary care pharmacy environments on a rotational basis of varying durations / structures.

DESIGN OR METHOD:
The focus of the evaluation was on the 12-month multi-sector training programme, 2017-18. Following ethics committee approval, semi-structured one-to-one interviews were conducted with both multi-sector pre-registration trainee pharmacists themselves, and their tutors/primary care pharmacist supervisors. A broad topic guide with prompts and probes was used in order to explore participant experiences of pre-registration training/supervising pre-registration training and opinions towards programme structure. Interviews were audio recorded, transcribed verbatim and thematically analysed (Braun and Clarke, 2006).

RESULTS:
Twenty-six participants were interviewed. However one withdrew consent and so data from twenty-five interviews were analysed (nine multi-sector pre-registration trainee pharmacists and sixteen supervising pharmacists) in order to evaluate the multi-sector pre-registration training programme. Four themes were identified, namely: 1) importance of tutor and trainee factors for programme success, 2) the added value of the multi-sector pre-registration programme, 3) lack of consensus on “ideal” programme structure, and 4) suggestions for improvement.

CONCLUSION:
This study provides an insight into the perceptions of multi-sector pre-registration pharmacists and their tutors towards the multi-sector training programme in Wales. Participants reflected upon the benefits of the programme in comparison with a single sector scheme including the opportunity to shadow a range of pharmacists and other healthcare professionals, develop a “well-rounded” knowledge, an appreciation of transfer of patient care between settings and a better understanding of all sectors of pharmacy in order to make an informed career choice. Areas for improvement, such as the need to introduce trainees to the hospital ward environment from an earlier time point as well as improve communication between tutors, were highlighted.

REFERENCES:
Braun, V and Clarke, V. 2006. Using thematic analysis in psychology. Qualitative Research in Psychology. 3(2) pp.77-101
A CALL FOR SPECIALTY SPECIFIC COMMUNICATION SKILLS COURSES; OUR REGIONAL DERMATOLOGY EXPERIENCE

Elshimy N (1), Lane R (2), Mitra A (1)

1. Dermatology department, Chapel Allerton Hospital, Leeds, LS7 4SA, 2. Associate director medical education programmes, Leeds Institute of medical education, University of Leeds, LS2 9NL

Communication skills courses are a key component of both undergraduate and postgraduate medical training in the UK with evidence of behavioural change. However, these courses are often generic with little, if any specialty specific themes. As a result, the most challenging cases for trainees; which are often specialty specific in nature, may not be addressed, limiting the practicality of the ‘take home messages’ that may not necessarily be applicable in the clinical setting.

We report the results of a trainee satisfaction survey from eleven dermatology specialty registrars working in a UK denary who attended a dermatology specific communication skills course. The course involved an initial lecture based session followed by an afternoon of role plays in small groups based around trainee pre-chosen scenarios. Trained actors were used to deliver the scenarios. Trainees received feedback from a communication skills trainer, a consultant dermatologist, their peers and the “patient” in role. Each scenario was recorded and candidates were given the opportunity to revisit earlier parts of the consultation based on feedback or any issues that arose. Formal written feedback was collected from all trainees.

The case mix was varied and included breaking bad news in a melanoma case, communicating with the parents of an unwell child with a hereditary blistering condition and a case of dermatitis artefacta. The formal feedback obtained was excellent. The mean scores rated out of ten were as follows:

<table>
<thead>
<tr>
<th>Evaluation Point</th>
<th>Mean Score (Maximum 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interesting</td>
<td>9.4</td>
</tr>
<tr>
<td>Useful</td>
<td>9.5</td>
</tr>
<tr>
<td>Informative</td>
<td>9.5</td>
</tr>
<tr>
<td>Enjoyable</td>
<td>9.4</td>
</tr>
<tr>
<td>Felt respected</td>
<td>9.9</td>
</tr>
<tr>
<td>Felt ‘safe’</td>
<td>9.8</td>
</tr>
<tr>
<td>Tailored to training needs</td>
<td>9.8</td>
</tr>
<tr>
<td>Challenging</td>
<td>9.5</td>
</tr>
<tr>
<td>Video recording utility</td>
<td>9.4</td>
</tr>
</tbody>
</table>

The qualitative feedback obtained highlighted the unique opportunity that this course presented for trainees to participate in scenarios directly relevant to their everyday work and patient encounters. We believe such specialty specific trainee courses are most useful in empowering trainees to gain new relevant skills and reflect on their daily practice.
INTRODUCTION:
In recent years we introduced a modified flipped classroom method in a seminar room within our clinical ward; instead of the traditional method of clinical training. This transformed our teaching and helped our team to win the clinical teacher award from Sheffield University for five consecutive years.

METHODS:
In the modified flipped classroom clinical scenarios and integrated learning activities for the different phases of students were prepared beforehand. The students discuss these scenarios on their own in the mornings and the clinical teacher review their responses later on and provide timely feedback.

The feedback provided by the medical students in our team [group1] is compared to that of other teams in Barnsley where still the traditional methods of training is used [group2]. Four domains from the feedback were used [table] to compare the two groups.

RESULTS:
Each domain was rated from zero to ten; ten been excellent and zero very poor. The means of the rates given by twenty-six students from each group are presented in the table below.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Group1</th>
<th>Group2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1] How do you rate the quality of tuition?</td>
<td>9.8</td>
<td>6.1</td>
</tr>
<tr>
<td>2] How do you rate the provision of learning opportunities to your learning objectives?</td>
<td>9.7</td>
<td>6.5</td>
</tr>
<tr>
<td>3] Was the clinical experience relevant to your learning objectives?</td>
<td>9.5</td>
<td>6.7</td>
</tr>
<tr>
<td>4] How do you rate the quality of the placement over all?</td>
<td>9.5</td>
<td>6.4</td>
</tr>
</tbody>
</table>

DISCUSSION AND CONCLUSION:
All the domains were rated highly by the students who train with our team in comparison to other teams in the hospital. The organisation of the training in our team and using a modified flipped class room has transformed our training into a multi-award winner team.
INTRODUCING IN-SITU SIMULATION TO A DISTRICT GENERAL HOSPITAL EMERGENCY DEPARTMENT: REFLECTIONS AND RECOMMENDATIONS

*FAULKNER A
Emergency Department, Airedale General Hospital, Keighley, West Yorkshire, BD20 6TD

INTRODUCTION:
In-situ simulation (ISS), the simulation of a clinical scenario in the natural working environment of an established team, is a well-recognised educational tool; effective in individual and team learning. The Airedale General Hospital (AGH) Emergency Department (ED) sought to enhance staff performance by implementing ISS. This abstract discusses the achievements and challenges experienced to aid others wishing to follow suit.

METHODS:
A Foundation Year 3 doctor was appointed to a new ED Simulation Clinical Fellow (SCF) post (80% clinical, 20% non-clinical) at AGH. Low fidelity ISS was delivered periodically after morning handover using a patient simulator model and scenarios supplied by Leeds Teaching Hospitals Trust. Participants included healthcare support workers, nurses and doctors of all seniority. Session quality control was ensured by senior doctor observation.

RESULTS:
Achievements
1) Optimal timing established to ensure each session ran with minimal disruption to the department
2) Creative use of limited resources; improving participant experience
3) Group size limited to focus on individual learner needs
4) Optimum learning achieved by senior doctor debriefing
5) ‘ED Sim News’, a learning topic update outlining the scenario and focus condition distributed post-ISS to the ED team enables all to benefit from ISS while reinforcing learning to participants. “Good concise update of trust/current guidelines”, “increased my awareness and knowledge base”
6) ISS participant feedback: “it was a really valid learning opportunity”, “a very well lead session”

Challenges:
1) Scheduling ISS consistently and regularly is not possible within the constraints of the SCF’s ED junior doctor rota, which restricts momentum and hinders ISS development
2) A junior doctor as SCF is limited in clinical experience and simulation facilitation. The ISS scenarios were consequently aimed at the level of a junior doctor minimising active participation by senior doctors

DISCUSSION:
Multi-healthcare professional ISS has been successfully introduced into AGH’s ED following the appointment of a SCF. Staff report ISS and ED Sim News to be an effective learning resource. Collaboration with an established ISS scheme and an amended SCF clinical rota are recommended when introducing ISS. With senior support the appointment of a junior doctor as SCF is appropriate. Other departments wishing to introduce ISS would benefit from considering the achievements and challenges experienced by AGH ED.

REFERENCES:
CLINICAL MENTORSHIP SCHEME- A PAIRING SCHEME FOR CLINICAL MEDICAL STUDENTS WITH JUNIOR DOCTORS TO IMPROVE THE AVAILABILITY OF BEDSIDE TEACHING

Fleming S* (1), Patel K (2)

(1) University of Leicester Medical School, (2) University Hospitals of Leicester NHS Trust

INTRODUCTION:
The importance of bedside teaching being part of medical education is vital to produce confident doctors who have the best chance of making the correct diagnosis. Studies have found that a thorough history and examination of a patient can, on average, make 70% of correct diagnoses. (3). Unfortunately, due to various factors, the frequency of bedside teaching across medical schools is decreasing. In the 1960s, bedside teaching made up 75% medical education (1) but is now making up just 9-16% of medical teaching (1,2).

We sent a survey to 3rd, 4th and 5th years at the University of Leicester Medical School. Of the 147 responses, most medical students surveyed (68%) reported that they would like bedside teaching at least weekly and 17% said they would like bedside teaching twice a week in the months upcoming to the exam. The current bedside teaching offered is suboptimal with over 80% of medical students reporting to have this teaching just once a month or less. These results suggest a large need for an increase in the frequency of the bedside teaching for Leicester medical students.

METHOD:
In order to meet this need we designed and implemented a pilot scheme for 4th year medical students in the run up to their exams called the Clinical Mentorship Scheme (CMS). CMS is a programme which pairs a maximum of two 4th year medical students with a junior doctor for regular bedside teaching. This was organised by advertising the programme as a teaching opportunity to junior doctors via email, social media and lecture “shout outs”. We were then able to compile a list of tutors with their preferred location and frequency and offered the list to medical students who signed up to be allocated a tutor for the next 2-3 months. To facilitate the process, we gave each tutor a document containing information about the structure and format of the 4th year clinical exams.

IMPLICATIONS:
Our primary measurement outcomes will be the frequency that students on the CMS received bedside teaching in the run up to their exams and whether they felt the programme prepared them correctly for their OSCE examinations.

BIBLIOGRAPHY:
DEVELOPMENT OF AN INDUCTION MODEL FOR ST1 OPHTHALMOLOGY TRAINEES

Frangouli O *, Jain S , McKechnie CJ , Jones EC


AIM:
To develop and present a model of Induction for Ophthalmology trainees and tailor it to this group. To support trainees by providing practical skills they require at the beginning of their training, to discuss training responsibilities, support mechanisms and resources available. To evaluate via feedback outcomes, effectiveness and constraints of the induction.

BACKGROUND:
Patient safety runs through GMC standards and requirements and it is inseparable from a good learning environment and culture. Educators have to ensure appropriate Induction processes for all training grade doctors. Health Education England (HEE) launched a national online induction programme for doctors in training. Although it incorporates key clinical topics it is a general induction and not tailored to Ophthalmology ST1 trainees. There is limited published evidence on induction programmes for postgraduate specialty trainees.

METHOD:
The following aspects were addressed by the Training Programme Director (TPD): timing of Induction, session planning and venues, learning methods, timely notification and communications to trainees, College Tutors and facilitators and attendance monitoring.

The Induction followed a structured approach and included for all 18 trainees 1) an Introductory welcome session by the HEE team with details on ARCPs, examinations, training structure, Eportfolio, audits, leadership experience, educational resources, teaching, research, buddy systems and educational meetings, 2) A simulation session at the microsurgical skills lab of the Royal College of Ophthalmologists with sign off of core competencies, 3) Practical and clinical small group sessions on slit lamp use 4) Eye Casualty small group session, 5) Eye-Simulator practical session and demonstration, 6) Lectures and interactive case discussions on all ophthalmology subspecialties, 7) Electronic record-keeping for Ophthalmology, 8) Practical skills stations and live interpretation of diagnostics tests, 9) A session on orthoptics and paediatric eye examination, 10) Surgical videos of common cataract surgery complications and trauma management, 11) A trainee-led session “things I wish I knew as ST1”

Evaluation feedback and questionnaire were collected via electronic survey

RESULTS:
93.3% of trainees found the programme introductory session excellent, 90.2% found the small group practice excellent, 100% scored the surgical simulation day as excellent, and 80.5% rated the lectures on subspecialties as excellent. Constraints identified included negotiating space provision with Trusts, colleague and management engagement and effect on clinical activity.

CONCLUSIONS:
Ophthalmology ST1 trainees felt the tailored induction met their expectations. They favoured small-group practice and surgical skills stations for experience in a new specialty. Trainees found useful meeting their peers and the HEE team for support availability. Formal provisions for specialist inductions may be necessary especially with future plans for multiprofessional inductions.
USING SIMULATION AS AN EFFECTIVE TEACHING METHOD TO IMPROVE MEDICAL STUDENTS' CONFIDENCE IN PREPARATION FOR WORKING ON CALL

Gill D*, Parida S, Patel K

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BACKGROUND:
On call work can present circumstances that new foundation doctors have had little exposure to (1). On completing medical school, over 40% of students feel unprepared for starting foundation training (2) and feel that they would benefit from on-call simulation being integrated into the formal medical school curriculum (3).

METHODS:
To aid the transition to a foundation doctor working on-call shifts independently, we designed and implemented a three-hour immersive simulation programme for medical students. Sessions consisted of 5 medical students being bleeped to attend to common on-call scenarios across a large university teaching hospital site. Students assessed and managed simulated patients, escalated to senior colleagues via a mock switchboard and participated in pre and post shift handover. Individual and group feedback was provided by foundation year doctor tutors who observed each scenario.

RESULTS:
Primary outcomes measured to assess the efficacy of our programme were: overall confidence at working on-call, managing acutely unwell patients, giving and receiving handovers, telephone discussions with other disciplines, task prioritisation, time management, escalating sick patients appropriately. Following an initial pilot programme, we recruited a further 34 medical students. Data was collected qualitatively using pre and post-course questionnaires.

Prior to the course, only 3% of students agreed that they felt confident with overall on call ward working. 88% of students improved their overall confidence during the course. Over 90% of students were more confident at task prioritisation, time management and medical telephone discussions. 73% of students were more confident at assessing and commencing management of acutely unwell patients. 76% were more confident at escalating patients to seniors. 85% improved their confidence at effectively giving and receiving a handover. All students would recommend the course to colleagues. Additionally, all agreed that such a simulation-based on-call teaching course should be formally included in their medical school curriculum.

CONCLUSIONS:
Our results corroborate with previous studies, suggesting a clear need for teaching to ease the transition between medical student and foundation doctor and improve confidence at on call work. Simulation based teaching programmes can provide students on-call experience in a safe environment and would be invaluable as part of medical school curricula.

REFERENCES:
1. General Medical Council. [Internet]. 2019. Available from: https://www.gmc-uk.org/-/media/about/how-prepared-are-uk-medical-graduates-for-practice.pdf?la=en&hash=1797AFD84B5B269D4FA85E107A99EE93509ED12&fclid=IwAR0i4i8yo2zrEBAtKkwP7Z5NRmd_dyhS0G_rOzmBm1qeMBYw-LxFqJzA
3. Miles S, Kellett J, Leinster S. Medical graduates’ preparedness to practice: a comparison of undergraduate medical school training. BMC Medical Education. 2017;17(1).
A CREATIVE FORUM FOR GP TRAINEES – LEARNING HOW THE CREATIVE ARTS CAN BENEFIT HEALTH AND WELLBEING
Gill N*, Ward H
York GP Training Programme, Health Education England Yorkshire and the Humber, Heath House, Grange Park Lane, Willerby, Hull, HU10 6DT

INTRODUCTION:
Evidence shows that the creative arts have a positive impact on health and wellbeing. The 2017 UK Government’s All-Party Parliamentary Report ‘Creative Health; The Arts for Health and Wellbeing’ recommended ‘the key to progress will be leadership and collaboration across the systems of health, social care and the arts.’ We report our evaluation of a GP training day designed to address this recommendation, promote the role of social prescribing (highlighted in the NHS Long Term Plan) and to raise awareness of the positive impact of the arts on health and wellbeing.

METHODS:
An inter-disciplinary team planned a one day ‘Creative Forum’ for all trainees in ST1 and 2 on York and Scarborough GP Training Schemes. We facilitated learning by: ‘telling the evidence’, sharing patient stories, discussing patient cases in small inter-disciplinary groups and experiential learning (singing, dancing and a visual art project). We evaluated the day using a questionnaire. The Manchester Colour Wheel (plus one word to describe mood) was also used at the beginning and end of the day. (Image 1)

RESULTS:
49 trainees participated. 46 written evaluation forms were completed. (Image 2) 43 indicated they understood the potential benefits of the creative arts for their patients’ health.10 specifically commented that the day helped them understand the value of patient-centred care. 20 stated they planned to take up a new activity for their own wellbeing.

CONCLUSION:
Facilitating learning about using the creative arts enabled trainees to understand how the arts can benefit their patients’ health and their own wellbeing. The model for our Creative Forum could be used to facilitate learning in other postgraduate and undergraduate programmes. The day also had a positive impact on the wellbeing of the trainee GPs which will be vital to delivering the NHS long term plan.

ACKNOWLEDGEMENTS:
FOUNDATION TRAINING: WHERE IN THE UK IS THE RAINBOW FLAG FLYING?

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(1) Yorkshire and Humber Foundation School, Health House, Grange Park Lane, Willerby, East Yorkshire, HU10 6DT, (2) UK Foundation Programme, St Chad's Court, 213 Hagley Road, Edgbaston, Birmingham, B16 9RG

INTRODUCTION: Over two-thirds (70%) of lesbian, gay and bisexual (LGB) doctors/medical students report experiencing discrimination in their place of work or study (British Medical Association, 2017). Homophobic hate crimes reported in England and Wales varies significantly between different regions (Amnesty International UK, 2017). This study was undertaken to investigate whether sexual orientation influences where medical students apply to undertake their foundation training. This information would allow better allocation of resources, support and supervisor training.

METHODS: We retrospectively analysed information gathered from all medical students who applied for foundation training in the United Kingdom (posts commencing in August 2018). Responses to the demographic question about their sexual orientation were matched to their first preference region and allocated region for foundation training. This information was then analysed using the multivariate chi-square test for independence.

RESULTS: There was no significant correlation between the first preference region for foundation training and reported sexual orientation (Chi-square multivariate test) (table 1). However, there was a correlation between sexual orientation and allocated region for foundation training. Compared to general population statistics on sexual orientation there was a higher than expected percentage of LGB doctors in the Northern and Midlands & Eastern regions (Office for National Statistics, 2017).

IMPLICATIONS: These results demonstrate no correlation between sexual orientation and region of the UK that medical students apply for their foundation training. This allows better allocation of resources and support especially in areas with higher than expected numbers of LGB doctors and higher levels of homophobia. The association between sexual orientation and allocated region for training represents a potential further area of study. Limitations include the number of trainees who answered the question about their sexual orientation with “prefer not to say” or left their response blank.

<table>
<thead>
<tr>
<th>Region</th>
<th>Non-heterosexual (LGB)</th>
<th>Heterosexual</th>
<th>Prefer not to say</th>
<th>Blank</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>5.0%</td>
<td>81.4%</td>
<td>8.5%</td>
<td>5.1%</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>5.6%</td>
<td>85.1%</td>
<td>6.0%</td>
<td>3.3%</td>
</tr>
<tr>
<td>North</td>
<td>5.5%</td>
<td>88.8%</td>
<td>0.6%</td>
<td>5.1%</td>
</tr>
<tr>
<td>South</td>
<td>2.8%</td>
<td>85.2%</td>
<td>6.8%</td>
<td>5.1%</td>
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Chi-square multivariate test $x^2$13.66 (critical value 28.869)

REFERENCES:
DO MULTIDISCIPLINARY TEACHING WORKSHOPS ON OBESITY ENHANCE STUDENT LEARNING?

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INTRODUCTION:
The General Medical Council requires graduating medical students to be competent in discussing and supporting behavioural changes in patients with obesity1. Despite this, obesity teaching remains underrepresented in medical curriculums2 and clinicians feel unprepared to support and manage this patient group3. This is alarming considering education is a major public health intervention for tackling the obesity epidemic4. However if students are better prepared to discuss obesity with patients, this may improve patient outcomes when they are physicians2. In view of this, our study aimed to explore student views on obesity teaching at Bristol University and determine whether a multidisciplinary teaching workshop on obesity could enhance student learning.

METHOD:
The 3 hour teaching workshop covering obesity related health issues was delivered to 2nd year medical students at the University of Bristol. Students were consented prior to participation on the day. The workshop blended lecture based teaching and question and answer sessions, delivered by a Consultant Bariatric Surgeon, Bariatric Specialist Nurse and Dietician. Pre- and post-workshop questionnaires using a 6-point Likert scale were used to assess student attitudes and confidence.

RESULTS:
190 students consented to be included in the study. Pre-workshop findings: Nearly all students (98%) agreed that treating obesity was important. However most students (60.5%) felt they had inadequate teaching on obesity during their undergraduate training with only 61.5% aware of treatment options. Post-workshop findings: Self-reported confidence in understanding obesity improved from 72.5% to 95.3%. Overall, students felt more aware of the risk factors, impact and treatment options after the workshop, with a 38.5% increase in awareness of MDT members involved in obesity management (from 45.8% to 84.3%) and 23.1% increase in students feeling able to provide nutritional advice to obese patients (from 55.8% to 78.9%).

CONCLUSION:
Our findings suggest that MDT workshops improve student confidence in managing obesity. In keeping with previous research, students acknowledged they received insufficient teaching on obesity. Alarmingly, only 77% of students strongly agreed that treating obesity was important after the workshop. We do wonder how we can adequately support patient treatment of obesity when medical students are not trained to fully appreciate its value.

REFERENCES:
Differential Attainment: What’s the Prescription?

Hankins, K, MacDonald-Davis, J *, Rustecki, L

Health Education: London & Kent, Surrey and Sussex Professional Development Team, Stewart House, 32 Russell Square, London WC1B 5DN

Introduction:

The phenomenon of differential attainment has been recognised in medical education for many years. The term refers to the inequality of educational outcomes among different demographic groups, notably Black, Asian and minority ethnic and international medical graduate doctors undertaking the same assessment. GMC Research identified multiple factors which affect rates of progression including the influence of key relationships with trainers and the extent to which trainees had a sense of belonging and feeling supported.

HEE London & Kent, Surrey and Sussex Professional Development Team (PDT) offers a suite of events to support trainees preparing for postgraduate medical assessments and specialty selection. Now, in response to concerns from the GMC and local trusts in relation to completion of training and subsequent retention within the profession, the team has piloted a Differential Attainment Toolkit for educators.

Methods:

Following conversations with deputy deans several key development needs were expressed around issues thought to be important to differential attainment. The topics prioritised were: facilitating challenging conversations with trainees about their progress, cited as a key area of difficulty; exam failure and the knock on effect on confidence and performance; career coaching to optimise career development of trainees; and support for clinicians from diverse linguistic and cultural backgrounds to address the complexity of the challenges this group of doctors can face.

A two-day train the trainer workshop on these themes was designed and delivered by PDT specialists, the object being to empower attendees to cascade new knowledge and skills to local colleagues and encourage sharing best practice across trusts. Original, innovative and interactive learning materials were produced, with the opportunity to practise techniques, discuss case studies and share experiences.

Implications:

Immediate post workshop evaluation highlighted the value of such training, the importance of having the space to share experiences and explore potential interventions.

The next stage is to fine tune the workshop materials and to produce a final version of the educators’ toolkit for distribution to the trusts and to be hosted on the PDT website.

To measure the impact on differential attainment we aim to introduce regular evaluations and follow up with local monitoring and professional support to ensure the quality of the initiative is maintained.
**INTRODUCTION:**

Project ECHO (Extension of Community Healthcare Outcomes) established in New Mexico in 2003, and recently adapted for use in the NHS, is transforming the way we learn and work as teams. ECHO uses webcam-based technology to facilitate the sharing of knowledge between specialists and primary care. Since publication of the Hepatitis C trial showed equal outcomes for care delivered by specialists compared to community care with support through ECHO, the ECHO model has grown globally, with networks now across 35 countries and for a range of clinical domains.

There is growing interest in understanding what learning theories might explain the successful implementations of ECHO. Providing insight may help to afford a deeper understanding of the essential theoretical “do’s and don’ts” in order to maximise impact and to contribute to its successful evolution as ECHO continues to expand.

A scoping review was conducted to ascertain what is already known about learning within Project ECHO.

**METHODS:**

We followed the Joanna Briggs Institute (JBI) methodological guidelines for conducting a scoping review. The JBI framework has been derived using the work of Arksey and O’Malley, as revised by Levac, Colquhoun and colleagues. The objectives, inclusion criteria and methods for the scoping review were specified in advance.

**RESULTS:**

Of 548 articles screened, 14 were included in the scoping review. Ten of these were published from 2014 onwards, indicating that published research is growing in this area. Key findings from the review were mapped including origin of research, diseases managed and publishing journals. Other findings were explored using key themes, ‘timings and characteristics’, ‘learning theories in Project ECHO’, ‘motivators and barriers to learning in Project ECHO’ and ‘knowledge networks and learning loops’.

Ten of the fourteen studies cited specific learning theories as relevant within Project ECHO. These included six different learning theories: Community of Practice, Situated Learning Theory, Social Cognitive Theory, Adult Learning Theory, Social Learning Theory and Script Theory.

**CONCLUSION:**

Although several learning theories have been mentioned within the studies in scope, few give a comprehensive explanation of how these theories might be relevant, comprehensively explanatory or be of use to develop ECHO. Two of the studies highlight the need for further research to be done to elucidate the salient features of the learning processes within ECHO, and how these may be applicable to other learning theories.

The authors of this review hope to add to the body of evidence for ECHO by using Activity Theory as a methodological framework to explicate the learning processes involved in, and social context of Project ECHO.
“TEACHING AND TRAINING FOR THE FUTURE” - FINAL-YEAR STUDENTS’ PERSPECTIVES ON THEIR ROLE AS NEAR-PEER TEACHERS
Hettle D*, Morgan J. (University of Bristol North Bristol Academy, Learning + Research Building, North Bristol NHS Trust, Southmead Hospital, Southmead Road, Bristol, BS10 5NB)

INTRODUCTION:
The General Medical Council calls for all doctors “to contribute to teaching and training doctors and students”. Consequently the University of Bristol requires final-year medical students to participate in peer-assisted learning (PAL) as one of several Entrustable Professional Activities, contributing to a summative competency assessment. In North Bristol Academy we offered PAL teaching through a near-peer teaching programme in which final year students facilitated bedside teaching for first or second year students attending hospital for fortnightly clinical contact.

Near-peer teaching is an effective teaching method to supplement faculty teaching. Significant evidence exists for the benefit of near-peer teaching to learners. Effects on student teachers are less studied, particularly in settings where participation is mandatory.

METHODS:
We developed a questionnaire investigating teachers’ perceptions of the programme’s impact on several educational domains: content learning; teaching skill; enjoyment; likelihood of future involvement in medical education; and expected benefits once teachers are doctors. We also considered whether the requirement to be involved had any effect on benefits previously described in voluntary near-peer teaching programmes. Evaluation data were collected employing both quantitative (10-point Likert-style scales) and qualitative (free-text) responses.

RESULTS:
Most near-peer teachers (76%) had prior experience of teaching junior students, without prior formal teaching or teaching qualification. Using mean data, teachers revealed a positive impact on all investigated domains, particularly development of teaching skills and future involvement in medical education. Only 1/21 (5%) felt that they would not have had interest in teaching junior medical students had it not been an essential sign-off.

Thematic analysis on qualitative data is ongoing, investigating drivers behind teachers’ involvement and the perceived greatest benefit from the programme, which commonly focus on improvement in teachers’ confidence and teaching ability.

CONCLUSIONS:
The benefits of being a near-peer teacher span several domains, all important in soon-to-be junior doctors. These findings have driven us to build our programme for the coming year, including introducing more formal teacher training. Given the requirement for junior doctors to develop teaching skills encouraging involvement in education during medical school seems an essential step.
CAN A ONE DAY RESPIRATORY SKILLS COURSE IMPROVE DOCTORS’ KNOWLEDGE AND CONFIDENCE?
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INTRODUCTION:
Approximately 30% of all medical admissions are due to respiratory conditions. These patients regularly present having had prior respiratory investigations, often without interpretation by a respiratory physician. It takes years of specialty training to understand the nuances and differentials which tests such as spirometry and sleep studies provide. Medics are rarely taught on these subjects and can lack skill in performing basic interpretation. Confidence in performing tasks such as chest drains, pleural aspirations and setting up non-invasive ventilation (NIV) is frequently low, despite being part of the core medical curriculum.

METHOD:
To tackle this problem we created a Respiratory Skills Day. Places were offered to clinical fellows, medical trainees and specialist registrars at King’s College Hospitals. A combination of lectures and group discussions were used to teach interpretation of spirometry and sleep studies relevant to medical doctors. Lectures, practical sessions and simulation were used to train doctors in pleural procedures, NIV, and basic bronchoscopy. The faculty consisted of three respiratory registrars and two respiratory consultants.

Participants were given a respiratory quiz before and directly after the course. This consisted of 25 multiple choice clinical questions based on the subjects taught. Four months after the course, a free-text questionnaire was emailed to gain qualitative data on how the participants’ attitudes had changed.

RESULTS:
8 out of the 10 participants who attended completed both pre and post course questionnaires. The mean pre-course score was 56%, with a significantly higher post-course score of 68.5% (p <0.001). 6 participants responded at four months. All 6 stated that the course had increased their confidence, especially regarding NIV and chest drain insertion. Four participants described how the course had helped them in a specific clinical situation such as “inserting a chest drain in resus” and “starting a patient on NIV in the emergency department” whilst awaiting the intensive care outreach team. On the day of the course and at four months all respondents agreed they would recommend the course to their peers.

CONCLUSIONS:
The data collected suggests that a one day intensive respiratory skills course both significantly improves knowledge and, at four months, confidence in performing complex and life-saving interventions such as chest drain insertion and commencing NIV. We suggest that this course should be offered to all medical trainees to improve knowledge, skills and confidence in managing respiratory conditions.

ACKNOWLEDGEMENTS:
Thanks to the Simulation staff at the Princess Royal University Hospital, and Dr Mallia Milanes and Dr Owen, Respiratory Consultants, for help with facilitating the day.
THE HUB - A USER-CENTRIC PLATFORM ENHANCING EDUCATION FOR PAEDIATRIC TRAINEES: A TOOL TO FACILITATE SHARED LEARNING

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ST4-8 Trainee Committee, Oxford School of Paediatrics

BACKGROUND:
The Hub is an online/app paediatric network developed by trainees to enhance communication, collaboration and education within our region. There are currently 222 users. It provides interactive user-driven ‘village noticeboards’ filtered by training level, locality or subspecialty interest. Two specific areas designed for sharing of learning are deanery training days, and for external courses/conferences.

AIM:
Explore the effectiveness of The Hub as a way of sharing learning amongst trainees.

METHODS:
Authors regularly collect data for ST4-8 training days, using number of posts/comments/attachments and contributors as proxies for active engagement.

An open board for interactive posting was set up for the national paediatrics conference in May 2019, with data collected on utility.

RESULTS:
Active engagement at training days is high, with up to 25% of attendees (n = 25-35 per training day) contributing by commenting, plus 5-25 attachments.

The conference board was accessed on 81 unique devices (representing up to 36% of users). 73% of those who responded to the survey (n = 11) described it as a useful educational tool. Positive comments included easy to use/access, interesting participant discussion, improved comradeship in those attending, and being able to access learning points for sessions not attended. Negatives were that one respondent felt ‘too shy to post’, and another who had difficulties logging in. 90% would take part next year.

CONCLUSION:
The Hub is being actively used as a way of sharing learning amongst trainees and has been positively received. Covering targeted educational events such as deanery training days and the national paediatrics conference provide access to learning for trainees unable to attend in person. Limitations of survey data include self-selection bias, therefore non/infrequent users may be under-represented. The Hub provides a user-centric platform, underpinned by Knowles principles of andragogy and constructivism theory (Kaufman 2003), to facilitate active learning and thereby enhance trainee education.

REFERENCE:
DO GP TRAINEES BENEFIT FROM A ‘GP-ORIENTATED SIMULATION WORKSHOP’ DURING THEIR EMERGENCY MEDICINE PLACEMENT? A PILOT WORKSHOP

*Hughes EC, Kilgour PM

Emergency Department, Wythenshawe Hospital, Manchester University NHS Foundation Trust, Southmoor Road, M23 9LT

INTRODUCTION:

Education through the use of in-situ simulation is a well established teaching method in Emergency Medicine (EM) and naturally focusses on the initial management of emergency presentations in secondary care. However, GP trainees make up nearly a quarter of all doctors in training holding a post in EM and the focus of such simulation education programmes may leave GP trainees feeling underwhelmed at the educational value for their future career. It is imperative that this vital GP workforce feel valued during their EM placement. This can be achieved in a number of ways and should include the delivery of teaching which explicitly bridges the gap between EM topics and the learning needs of GP trainees.

The aim of this project was to develop an in-situ simulation workshop for GP trainees, currently on placement in an Emergency Department, orientated towards emergency presentations in general practice.

METHODS:

A pilot of a ‘GP-orientated simulation workshop’ was designed for GP trainees currently rotating through the Emergency Department at Wythenshawe Hospital, focussing on emergency presentations. This was run at a local GP practice with help from an Emergency Medicine Simulation Fellow and a GP trainer. GP trainees participated in an ‘anaphylaxis’ simulation and a ‘cardiac arrest’ simulation. Each scenario was followed by a debrief during which participants and observers reflected on their reactions and understanding in order to complete the intended learning outcomes. Pre- and post-workshop questionnaires were completed by participants.

RESULTS:

GP trainees enjoyed the workshop, felt it was applicable to their work environment and improved their confidence in dealing with emergency presentations in a primary care context. They also felt the debrief provoked in depth discussion and helped them to reflect on how to improve their performance during a real clinical emergency in a GP setting.

CONCLUSIONS / IMPLICATIONS:

This workshop delivers bespoke education to GP trainees rotating through the Emergency Department. It demonstrates the relevance of the skills they develop and helps to expand on these skills in a primary care context.

As the pilot workshop was received so favourably, we aim to address the participants’ and our own reflections and then deliver the workshop again to the next group of GP trainees rotating through the Emergency Department. We will evaluate this subsequent workshop using semi-structured interviews and subsequent thematic analysis.
UNDERGRADUATE MEDICAL STUDENT PERCEPTIONS OF AN INTEGRATED TEAM-BASED LEARNING APPROACH IN ONCOLOGY

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BACKGROUND:
The UK has increased its medical student places by 1,500 per year with the intention of filling the medical workforce gap to meet the future needs of an expanding ageing population. This has resulted in medical schools increasingly using alternative teaching methods to deliver medical education to a growing number of students.

Team-based learning (TBL) is increasingly popular with more traditional problem-based learning approaches to small group teaching potentially less effective and unsustainable, considering the high level of teaching resources and facilitator knowledge required. This study describes undergraduate medical student perceptions of an integrated TBL approach within a structured oncology tutorial.

METHODS:
A mixed quantitative and qualitative approach was taken. Medical students partaking in 4 structured tumour-specific tutorials were asked to complete a survey about their experience of an integrated team-based learning activity following each session. Descriptive statistics were used to define 5-point Likert scale responses. Qualitative data was analysed using an emergent thematic approach.

RESULTS:
There were a median 8 participants (range 4-11) per tutorial with a 73% (36-100) response rate. A median 44% (25-57) respondents found the use of TBL very enjoyable, 46% (29-60) enjoyable, 10% (0-25) neither enjoyable nor unenjoyable and 0% unenjoyable/not at all enjoyable. A median 51% (40-57) respondents described TBL as a very useful learning tool in oncology, 37% (27-50) useful, 13% (0-20) somewhat useful and 0% not/not at all useful. Overall, a median 56% (20-75) respondents felt TBL contributed to an overall oncology tutorial experience that was very useful to their training, 37% (20-75) useful, 7% (0-20) neither useful/not useful and 0% not/not at all useful.

Emergent themes regarding the integration of TBL into structured tutorials included ‘enjoyment,’ ‘interaction,’ ‘active learning,’ ‘recall,’ and ‘facilitation of discussion.’ Time and structure was considered important for facilitating a successful TBL approach.

CONCLUSIONS:
A TBL approach to small group teaching in oncology was perceived by medical students to be both useful and enjoyable. Students felt TBL enhanced their engagement and facilitated group interaction through discussion. They considered it helpful in testing understanding and recall, but described the need for a time-pressured and structured approach for its success. Further investigation, for example with a controlled interventional TBL study reporting assessment outcomes is warranted.
MEDICAL EDUCATION IN A VIRTUAL WORLD: IMPLEMENTING A NOVEL VIRTUAL REALITY SIMULATION TOOL FOR MEDICAL STUDENTS

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INTRODUCTION: Simulation is a well-established and effective tool for medical education1. At the technological frontier is virtual reality simulation (VRS), which involves an interactive, three-dimensional, computer-generated space. Whilst the medical community has begun to recognise the potential of VRS in surgical training2, few have explored its role in educating medical students. Here we describe a high-fidelity VRS platform that has been introduced to medical students for the first time nationally at the University of Oxford.

METHODS: We used a VRS platform that is commercially available from Oxford Medical Simulation (OMS). Participants wear a head mounted display immersing them in a virtual environment where the objectives are to manage an acutely unwell patient by making a series of clinical decisions about assessment, investigations and initial treatment. Validated scenarios were accessed from the OMS library of standardised medical emergencies. We implemented the VRS tool in two main ways to facilitate learning: 1) Induction sessions: equipment was demonstrated to individual students to then encourage independent, self-directed learning. 2) Combined teaching sessions: VRS was used in combination with lectures and case-based discussions (CBD) in small groups.

We evaluated the impact and utility of these simulation interventions from responses to post-session questionnaires.

RESULTS: A total of 30 clinical medical students attended the sessions. 100% of participants reported achieving their personal learning objectives for the sessions. They also universally recommended the tool to peers and expressed interest in using the tool in their own time for further practice. Following the combined teaching sessions, self-reported knowledge and confidence scores improved in relevant topics, such as the ABCDE approach, recognising sepsis and its initial management. 70% of these students indicated that VRS was more helpful than CBD.

CONCLUSIONS: We have demonstrated that high-fidelity VRS is a viable and valued educational tool, which encourages deliberate practice and offers personalised feedback in a realistic setting. While VRS requires a modest capital investment, its value lies in its accessibility, ease of set-up and use. The integration of VRS into the curriculum through this study has been more straightforward than using whole-body manikin simulators and more effective than traditional learning modalities (CBD). However some students commented that the VRS interface is inherently prescriptive and provides more prompts to the user. Overall, the implementation of this platform is consistent with at least 8 of the 12 important principles for maximising the benefit of simulation-based education2. Virtual reality simulation is an exciting, innovative tool for educating medical students and adoption of this technology can complement existing teaching methods.

REFERENCES:
THE STOP PROJECT – SUPERVISION OF TRAINEES DURING OPERATIVE PROCEDURES

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INTRODUCTION:
Surgery is a craft specialty where operative experience is essential to produce a technically skilled surgeon and improve patient outcomes. To achieve these goals, the trainee must develop knowledge and practical skills through experiences in theatre. Standards and methods for surgical training and education are continually shifting. Within the United Kingdom and the National Health Service (NHS) these standards are set by The Joint Committee on Surgical Training (JCST).

Requirements for core trainees and specialty registrar trainees must be completed on an annual basis. As a result, trainers in surgery have an educational obligation to train trainees in performing whole or part of an operative procedure. However, interactions between the trainee and trainer are often unique and multifactorial. They can change, depending on trainee competence, case complexity, trainer’s ability to train and the circumstances of the operating list on a particular day.

It is, therefore vital, the trainees and trainers establish goals that can be delivered and subsequently achieved during the short periods of time they are in contact.

METHOD:
We developed an online based proforma and conducted a prospective single-blinded study of 33 orthopaedic operative procedures, between 19/01/2019 and 27/05/2019. The proforma included a pre and post operative questionnaire to establish goals before the procedure, and if these had been achieved by the end of the operation.

RESULTS:
27 (82%) trainees were listed as the primary surgeon (6% trainer, 12% not listed). The trainee grade was that of SHO 45% (15), registrar 39% (13) and the grade was unlisted for 12% (4) of procedures. The mean rating of trainee satisfaction on a scale of 0-10 for the procedures as a training experience was 8.4 ± 0.53 (95% CI), whereas the trainer satisfaction for the case as a teaching experience was 8.3± 0.53 (95% CI). Although 73% of our cohort believed a surgical checklist would be a useful addition to aid training and the completion of WBAs, 64% of participants also believed it may be an additional burden to already pressurized working environments.

CONCLUSION:
The world of surgery is changing. The demands put on surgical trainees and the expected standards are ever increasing. In this study we set out to look at a method whereby operative experiences can be formalized, agreed upon and targets set prior to the undertaking of a procedure. Although we recognize the results indicate that most participants recognize the use of a surgical checklist as indeed an extra burden, they also recognize that it would be a useful assistant in both the completion of work based assessments and optimizing surgical training.
INTRODUCTION: As the first point of care, Primary Care encompasses General Practitioners, Dentists, Pharmacists, Optometrists and many other allied healthcare professionals. These professions play a critical role in delivering primary care services, however, their education and training is traditionally provided and delivered in isolation. The Revalidation Support Unit within Health Education and Improvement Wales has developed inter-disciplinary and multi-disciplinary events utilising a patient-story approach to unify educational delivery.

Cardiff Unit for Research and Evaluation in Medical and Dental Education (CUREMeDe) were commissioned to carry out a longitudinal evaluation of a new multi-professional collaborative programme. This has supported our conclusion.

METHOD: Patient-centred CPD events pedagogically designed to encourage cross learning and collaboration. Our inaugural event, ‘Holistic Care for People Living with Dementia in the Community’ featured:

- A patient story over a number of years from diagnosis to end-of-life. This method encouraged collaboration and significant audience engagement.
- A panel of experienced specialists each outlining their approach to helping the patient.
- Inclusion of the third sector, advocates from the Alzheimer’s Society, which went beyond the clinical and focused on other patient needs, such as early dental and optometry intervention/referral.
- Live streaming of the event in order to increase accessibility and recording it to generate an ongoing resource.
- Delegates (in person and online) invited to share their experiences, discuss issues and possible interventions at each stage of the patient story.

‘Great learning from collaboration with other professionals. We all have areas of expertise but for the most part we don’t link our knowledge and provide one clear pathway. So much knowledge gained from hearing the other professionals point of view and their ‘treatment/management of the dementia patient.’’ Dementia Study Event Delegate

CONCLUSION: Sharing knowledge between the professions provided an understanding of the complexity of different side effects and issues encountered by dementia patients. The patient’s journey was most efficacious in managing and improving patient care with all professionals.

Multi-disciplinary collaborative learning provides an environment in which different specialties can share knowledge and learn from each other. The event provided a forum for improving knowledge of the challenges faced by patients and sharing of good practice between the specialties. The evaluation by CUREMeDe indicated some degree of longitudinal impact of applying the knowledge gained from such events and changes to practice. However, respondents indicated challenges to making changes to practice and these are worthy of further research.

ACKNOWLEDGEMENTS:
Health Education and Improvement Wales - Pharmacy & Dental Departments
Cardiff University - School of Dentistry
Wales Optometry Postgraduate Education Centre (WOPEC)
CUREMeDe

REFERENCES:
1 Barnes, E. Bullock, A, 'Evaluation of new multi-professional collaborative programmes' CUREMeDe February 2018
HOW USEFUL ARE REVISION VIDEOS AS AN ADDITIONAL LEARNING RESOURCE TO LINK ANATOMY TO CLINICAL PRESENTATIONS FOR MEDICAL STUDENTS?

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INTRODUCTION:
Medical students often find it challenging to link their anatomy teaching with clinical content. For the purpose of this study, in order to bridge this perceived difficulty and to support students during their revision period, a revision video to specifically link anatomy to clinical presentation was designed and trialled. Student feedback was sought and their engagement recorded.

METHOD:
A short 6 minute revision video was created to link biliary tree anatomy to different clinical presentations using the ExplainEverything app (see image). This was then shown to second year medical students during small group teaching sessions and made available via an online portal. Two paper surveys were conducted: the first after initial viewing and the second after the students’ examinations two months later. These focused respectively on perceived effectiveness and subsequent use.

RESULTS:
The initial survey revealed that 100% (67/67) of students felt that the video successfully linked anatomy to clinical presentation, and that it added to their understanding of biliary tree pathology. The majority (62/67) said that they would watch the video again as part of their revision and all said that they would want to watch other similar videos on additional topics (67/67). The second survey revealed that just over 50% of students had re-watched the video (20/39). Out of those 20 students, 100% (20/20) said that it had helped their revision. For those that did not re-watch (19/39), the two main reasons were that they could not find the link via the online portal or that they felt watching it once was enough.

CONCLUSIONS:
Although students were virtually universally positive and thought that the video had been successful in linking anatomy to clinical presentation, only around half actually re-watched it. It appears that accessibility is a key theme for future use, particularly via the online portal. Future videos will need to be easily accessible and the aim would be to create an online video bank. This would not only usefully add to the materials available to students, but would potentially make all material accessible to all students all the time.
LET'S TALK ABOUT ORAL HEALTH: ENGAGING AND TEACHING HEALTHCARE PROFESSIONALS ABOUT THE IMPORTANCE OF DELIVERING ORAL HEALTH FOR INPATIENTS IN ACUTE HOSPITAL SETTINGS

*Khalid S *(1,2), Wong J *(3)


INTRODUCTION:
The UK has an ageing population with life expectancy increasing and a high proportion of over 65-year olds. These patients have increased medical and social care needs, with multiple comorbidities and polypharmacy, which can impact oral health. Frailty and vulnerability also increase with age and many people require support to undertake personal care.

Poor oral health affects systemic health, ability to eat and speak, social interactions and can lead to social isolation. Many healthcare professionals are not trained to undertake mouth care and literature has shown this is often neglected within hospital settings; especially for patients reliant on third party support. Research suggests that hospital admission impacts oral health and poor oral health is linked to hospital acquired infections, poor nutrition and increased hospital stay. Improvements in mouth care provision for inpatients is required and oral health assessments should form a part of the patient care pathway.

We will highlight the importance of teaching and engagement of healthcare professionals in adopting mouth care policies and discuss confidence levels in undertaking mouth care within United Lincolnshire Hospitals Trust (ULHT).

METHOD:
An interactive lecture was delivered to over 100 delegates at the ULHT Nursing and Midwifery Conference, on mouth care within hospital settings; including the importance of oral health and links to systemic diseases, such as diabetes and cardiovascular diseases. Advice on implementation of oral health assessment tools on hospital wards was also given.

A qualitative questionnaire was distributed and over 100 responses were received from nurses and allied healthcare professionals, regarding confidence levels on undertaking mouth care and perceived barriers preventing mouth care implementation.

RESULTS:
Positive feedback was received, and many delegates implemented knowledge learnt into the clinical setting; having a positive impact for patients.

Survey results revealed a lack of formal training in mouth care, with many learning ‘on the job’ or receiving brief training during their nursing qualification. Lack of training, knowledge and oral assessment tools, were some of the biggest perceived barriers in providing mouth care. Many respondents lacked confidence and wanted further support in undertaking general oral health assessments and specifically mouth care for ventilated patients; whilst there is also lack of clarity on who to contact if a patient has an oral complaint.

CONCLUSION:
Improvements are needed in training and increasing confidence levels for healthcare professionals providing mouth care. The survey results will be used to provide further training workshops and incorporate oral health as part of inpatient care plans, from admission to discharge; with the aim of improving a patient’s general health and well-being and to put the ‘mouth back in the body’.
INTRODUCTION:
The use of High-Fidelity simulation (HFS) as a method to train medical students in technical and non-technical skills is increasing. In 2017 HFS was introduced to second year medical students at King’s college London (KCL). Whilst feedback was positive, the extent to which students at the initial stages of their training can identify technical and non-technical factors is unclear. We created an observation tool to provide explicit guidance to help students recognise these skills whilst observing their peers’ performance in HFS scenarios.

AIM:
To compare the views of year two medical students receiving HFS training with a novel observation tool for technical and non-technical skills, to those without.

METHODS:
31 KCL year two medical students voluntarily participated in the study, 15 students carried out HFS in the conventional format (group A) whereas 16 students (group B) used an observation tool to help identify technical and non-technical factors when observing their colleagues in simulation. A post HFS questionnaire and three focus groups were conducted. Independent t-tests were used to analyse Likert scale questionnaire responses and focus group transcripts underwent thematic analysis.

RESULTS:
Significantly more group B students compared to group A agreed that enough time was dedicated to discussing non-technical skills (p<0.05). In contrast, most students in both groups agreed that sufficient time was allowed to explore technical factors. The majority of group B students felt they were given enough information to observe technical and non-technical factors whereas all group A students wanted more guidance. In group B, 15 students using the observation tool recommended it for future use whereas only one student felt it was time consuming. Focus group analysis highlighted the role of the observation tool as a means of enhancing student focus as well as aiding the recognition of technical and non-technical factors.

CONCLUSION:
This study demonstrates student support for the use of an observation tool in identifying technical and non-technical factors in simulation. The increased focus reported by students during the observation and debrief components of HFS illustrate the tool’s ability to engage students during these elements whilst also increasing identification of important factors demonstrated in simulation. We consequently aim to deliver HFS to year two medical students with the aid of this observation tool.
THE ARU VIRTUAL DISSECTOR - AN INNOVATION IN ANATOMY TEACHING USING RADIOLOGY

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INTRODUCTION:
Radiology is recognised to be a useful adjunct in anatomy teaching, but the full potential of using digital radiology remains unfulfilled. Current ‘virtual dissectors’, in the form of touch-display anatomy tables, remain expensive and are limited in terms of time allocated to individual students. At Anglia Ruskin Medical School (ARU), we have developed an innovative approach to utilising multiplanar radiological images to create a cost-effective Virtual Dissector. We use this tool as a supplementary pedagogy to cadaveric dissection.

METHODS:
The ARU Virtual Dissector has been created for each anatomy module as a collaborative effort between the School of Medicine academic anatomy and radiology teams. It is delivered in the teaching curriculum using a 3-Step Approach:

STEP 1  An Annotated PowerPoint presentation is made available one week before the cadaveric dissection to enable students to prepare. The presentation uses annotated sequential multiplanar images of computed tomography (CT) or Magnetic resonance imaging (MRI), which are utilised to highlight the relevant anatomy, and is explained in an accompanying video lecture by a radiologist. The same data set of images are then viewed in Steps 2 and 3 utilising Digital Imaging and Communications in Medicine (DICOM) software.

STEP 2  Immediately before the cadaveric dissection, a radiologist revises the module in a short demonstration of the same data set of images (unannotated) using DICOM software.

STEP 3  Students are given access to the same data sets and DICOM viewing software installed on medical school computers. This self-directed learning tool allows them the flexibility to practice virtual dissection in their own time.

CONCLUSION:
Constructively aligning the Virtual Dissector within the anatomy curriculum has been found to be an effective supplement to cadaveric dissection. Scrolling back and forth through the resource enables students to ‘follow’ structures and create a global and relational view of anatomy. The tool introduces students to radiology imaging at an early stage and will remain a permanent resource for them to refer back to in clinical years. The ARU Virtual Dissector is an innovative pedagogy, which utilises our unique 3-Step Approach to provide a cost-effective and flexible method to teach anatomy using radiology. We hope to carry out further observational studies to evaluate the effectiveness of this new pedagogy.
Using Immersive Simulation has become a popular key educational approach throughout secondary healthcare education. Its use within general practice education is more limited and often confined to simulated patients and communications skills learning. Following the successful completion of the RCGP licensing exams, Defence GPs reporting difficulties transitioning back to delivering general practice in a military environment which demands knowledge and skills beyond than that covered by the current RCGP curriculum. The Academic Department of Military General Practice (ADMGP) has used co-creative curriculum development to devise a residential training week to address the lack of preparedness Defence GPs felt; this culminates in a large-scale high fidelity immersive simulation exercise.

This poster describes an educational design and implementation process based upon the “10 goal conditions” described by Issenberg (1) which focuses on the use of high-fidelity medical simulations to enhance effective learning and build resilience. The successes and failures of the approach are discussed from the perspective of the learners' and facilitators' feedback.

(1) S. Barry Issenberg, et al. (2005) Features and uses of high-fidelity medical simulations that lead to effective learning: a BEME systematic review, Medical Teacher, 27:1, 10-28.
USING TIME IN TANZANIA TO IMPROVE SKILLS AND MORALE OF STAFF IN THE NHS

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INTRODUCTION:
In 1999 Northumbria Healthcare NHS Foundation trust (NHFT) established the charity ‘Bright Northumbria’. Since then it has supported a groundbreaking project working in partnership with Kilimanjaro Christian Medical Centre (KCMC) in northern Tanzania. During this time, teams have volunteered their time to train their African counterparts, enabling them to provide a vastly improved medical environment for patients in their country. Adjacent to the hospital, the Kilimanjaro Christian Medical University College trains health professionals of all disciplines with courses of study ranging from Diplomas, Ordinary Degrees, Post Graduate Degrees and Doctor of Philosophy and a school of Nursing. In the UK there has been an increasing trend for doctors choosing not to apply for higher specialty training. There is now acknowledgement greater flexibility is needed, opportunities for work life balance and enhanced team structures and support. Many doctors in training would like some experience overseas and in developing nations. In an attempt to offer this we established this programme in 2016 as a novel way to provide leadership and teaching skills.

METHOD:
An annual 2 week period has been identified, when HEE NE faculty and doctors in training visit KCMC with the Bright Northumbria Team. We have provided teaching and training for undergraduate and postgraduate medicine, and leadership training for nursing staff. The doctors in training that we selected to come were asked to complete a report and Copenhagen Burn out scores pre and post the visit.

RESULTS:
Most teaching was delivered in the hospital setting either in clinic, at the bedside or in seminars, outreach sessions were conducted in schools in conjunction with the Burns Unit team. Children and community health care workers were included in teaching and training. UK doctors in training delivered a total of 29 teaching sessions across the 2 weeks and observed a further 8. Sessions delivered by HEE NE faculty included a session on service improvement was delivered as part of the 3rd year BSc programme for 18 student nurses and 3 bespoke leadership workshops were run twice for 53 qualified nurses. The Copenhagen burn out scores pre and post visit were collected from 7 participants in 2018. From this very small sample we found trends showing improvement in meaning of work, commitment to the workplace, job satisfaction, justice and general health perception. The free text comments also supported these findings (“the programme has refreshed my enjoyment for clinical work”).

CONCLUSION:
This is an innovative and well received programme, that teaches many general skills. It has had huge, positive personal impact on those doctors who participated. It also shows that going abroad for short periods of time to teach has benefit for the community visited as well as the doctor who goes to teach.

Early signs suggest this may also help the NHS, but further work is needed.

Medical curricula should provide students the opportunity to gain knowledge from patients of diverse social, cultural and ethnic backgrounds. This includes a range of protected characteristics, such as age, gender and ethnicity. Balanced representations of characteristics ensure that each stakeholder including patients and staff, experience consistent and fair treatment within the healthcare environment. A lack of fair representations may be associated with detrimental effects on overall health outcomes, this is in addition to limitations in the professional outcomes of individuals. It is important to evaluate the representation of protected characteristics in all elements of student learning, including both the formal and hidden curriculum.

This mixed methods study investigated the various protected characteristics in expert written curriculum content and student written PeerWise cases. Each case was examined for the characteristics of age, gender and ethnicity within its blueprint domains. The data were analysed using IBM SPSS to explore the associations between the resource type and the distribution of the data. In addition, a survey questionnaire was developed and administered to students in Years 2-5 to gain information on student perceptions of representations of protected characteristics in the medical school curriculum. The survey also explored the extent to which students of certain characteristics such as ethnicity or gender were likely to report different experiences.

The results showed that the curriculum content and the student written content differed in their representation of protected characteristics. Students tended to write more male cases than female cases (53.70% vs. 44.42%) and also used the age group 20-29 most commonly (23.21%). Whereas expert written cases showed the greatest number of cases in age range 60-69 (15.07%) and showed an equal number of male and female cases. Ethnicity in both resources was heavily under-represented. Survey results showed that students felt that there were accurate representations of protected characteristics in the curriculum. However, certain groups of individuals seemed to have differing experiences to others including students who identified as female and those of ethnic minority groups.

This study is one of very few which looks at both the formal and hidden curriculum by analysing the expert written and student written cases. The representation of protected characteristics within the formal curriculum was found to be vital in changing the perceptions of students about the diversity of our patients. The study further demonstrates that while fair representation of protected characteristics within curriculum may exist, it does not necessarily allow for changes views within medical students.
CAN YOU PACE YOURSELF? THE POWER OF LANGUAGE TO FLATTEN HIERARCHY AND EMPOWER MULTI-DISCIPLINARY HEALTHCARE TEAMS IN SIMULATED CRITICAL SCENARIOS

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INTRODUCTION:
Potentially harmful mistakes in healthcare are often the consequence of poor communication between members of a team (1). Reasons for this communication breakdown are multi-factorial, but within healthcare a hierarchy, whether perceived or real, can contribute to a reluctance to challenge decision making (2). Simulations give a dynamic training opportunity to practice the non-technical skills that are essential for the effective team management of an unwell patient (3). In response to a serious untoward incident, a programme of in situ simulation training sessions was developed to replicate oncological emergencies. Sessions were delivered to multi-disciplinary groups, with a focus on non-technical skills and human factors. The hypothesis was that participants would have an increase in confidence to challenge decision making following the training.

METHOD:
A multi-disciplinary group works together in a scripted high fidelity simulation, held in situ on an acute oncology ward. The groups include junior doctors, registered nurses, health care assistants, student nurses, and radiographers. The simulation mimics a typical oncological emergency, for example neutropenic sepsis. Participants work together to manage the emergency. The focus is on communication skills, clear handover, and challenging decision making where necessary. Human factors challenges and interruptions are also worked into the scenario to increase the realism. Participants are introduced to the PACE (Probe, Alert, Challenge, Emergency) acronym to aid them in communicating when faced with a steep hierarchical gradient. Participants take part in a structured debrief following the scenario.

RESULTS:
An attitudes questionnaire based on Kirkpatrick’s model was used to collect data (4). Participants completed a questionnaire pre and post the simulation. The results demonstrate that 55% of participants felt more confident to challenge decision making. Participants also reported an increased knowledge of relevant trust protocols / algorithms.

CONCLUSIONS:
In situ multi professional simulation training allows an ideal opportunity for all oncology team members to practice non-technical skills in a safe, realistic environment. The increase in confidence levels represents a positive start to this research. This work is action research and a PDSA (plan, do, study, act) cycle is completed after each session. Sessions are repeated quarterly, and are adapted to cover a wide range of oncology topics.

REFERENCES:
UTILISING TRAINEES’ EXPERIENCES OF SERIOUS INCIDENTS TO SUPPORT DOCTORS AND TEACH HUMAN FACTORS
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INTRODUCTION:
Human Factors are often cited in root cause analyses of serious incidents (SI). As such, there have been national drives to imbue a greater understanding of human factors in the NHS through training.

SIs bear an enormous personal and professional toll on staff involved. Without adequate support, the ‘second victim’ can become a ‘wounded healer’, burnt out and lost to the workforce at a time when retention is more critical than ever. Raising awareness of support structures is therefore important.

Dissemination of learning from SIs across organisations often employs a case-based approach. Such mechanisms usually focus on lessons to prevent recurrence, rather than the staff experience of involvement in the SI. Stories of staff experiences can be used to inspire empathy and promote reflection, following the tradition of Narrative Medicine.

METHODS:
A trainee’s experience of involvement in an SI was used to construct a workshop delivered by the trainee at two local medical academic programmes at Surrey and Borders Partnership NHS Foundation Trust. The workshops consisted of (1) An introduction to SIs, (2) Narrative of the experience, (3) Introduction to Human Factors and root cause analysis, (4) Discussion of the case in small groups of mixed grades using a Human Factors approach, and (5) Discussion of support for staff.

RESULTS:
Feedback was obtained from 41 attendees, namely 6 medical students, 17 trainee doctors, 3 Staff and Associate Specialist doctors, 11 consultants, and 4 who were not identifiable by grade.

Attendees rated the workshop out of 10 on a scale where 1 was poor and 10 was excellent. The mean scores obtained were 9.41 for Usefulness, 9.41 for Relevance, 9.32 for Content, 9.45 for Presentation, 9.29 for Structure and 9.39 Overall.

Free-text responses indicated that attendees benefitted most from the opportunity to discuss in groups with consultants about SIs; open and honest sharing of experiences by senior clinicians; hearing encouragement by senior clinicians to seek support; and discussion of support structures and Human Factors.

CONCLUSIONS:
The case of Dr Hadiza Bawa-Garba has transformed the discourse around SIs for doctors. Within this climate, it has become ever more crucial for clinicians to be aware of Human Factors and support structures. We have shown that a narrative delivered by a trainee can be harnessed to successfully encourage discussion of SIs, teach Human Factors and stimulate discussion on support for doctors.
Rationale: The GMC says that doctors should be prepared to teach fellow doctors and students (1). Teaching feedback is an important part of being an educator (2) and is, therefore, important for doctors. It is also used in revalidation and appraisals. Traditionally, paper forms have been preferred, but they are difficult to gain and can become identifiable. Options for an alternative method of gaining teaching feedback were therefore researched, collecting teaching feedback using quick response (QR) codes.

Methods: A free online platform was found, allowing personalised forms to be quickly and easily made and shared with a QR code. All responses gained were completely anonymised and were collated by the online platform in both graph and spreadsheet form; which could be included in an appraisal.

Facilitators of paediatric teaching in March 2019 were offered the option of setting up an online feedback form. Those who agree were set up with either a pre made template form or facilitated in writing their own questions. Feedback, via a QR based form, was then collected from the facilitators, ascertaining demographics and their opinion of this feedback collection method, along with information about how feedback was previously collected.

Results: 13 doctors were set up with the online form, and ranged from CT/ST1-3 to consultants. The forms were trialled with a range of postgraduate and undergraduate teaching sessions, along with just facilitating the set-up of the feedback form. 100% of doctors said that they would use the online feedback forms in the future.

42% previously didn’t collect any feedback unless it was provided for them and 34% of doctors used paper forms. 77% of the doctors included 0-10 pieces of feedback in their annual appraisals or trainee ARCP, highlighting the importance of gaining feedback in an easy and presentable manner.

Discussion: The QR based feedback forms have proven to be useful. Doctors who have been set up with the online forms are keen to trial this in their clinical areas. Anecdotally, the undergraduate students liked filling in the online form.

There have been some key feedback from the users about using this platform:
1. Some phone users need a specific QR code reader app: getting users who can easily scan the QR code to share their device is one possible way around this.
2. Requiring internet connection on mobile phones, that might be intermittent: this is something that the authors have no ability to change. There is scope to develop a completely separate application for feedback that can be filled in offline and then uploaded when the internet is regained.

Further work has been planned to trial the online feedback form with more doctors, as well as continued trouble shooting and gaining opinions from the current users.

References:
1. GMC Good Medical Practice Domain 3: Communication partnership and teamwork, teaching, training, supporting and assessing https://www.gmc-uk.org/ethical-guidance/ethical-guidance-for-doctors/good-medical-practice/domain-3—communication-partnership-and-teamwork#paragraph39 accessed on 7/6/19
YOU’VE BEEN BLEEPED: AIDING THE TRANSITION FROM STUDENT TO F1 DOCTOR ON CALL
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INTRODUCTION:
An F1 doctor is required to be organised, prioritise and communicate effectively. An on-call shift will involve gaining information over the phone from nursing colleagues, managing the acutely unwell patient and escalating to seniors. Our aim was to provide a teaching session where students can practise these skills in a safe environment, smoothing the transition from student to doctor.

METHODS:
Multiple sessions were held for final year medical students throughout the year. Sessions lasted 2 hours in groups of 3-4 students. Students were given a brief and asked to complete a questionnaire on how confident they felt in managing acutely unwell patients before and after the session. There was a total of 15 stations based on common on-call scenarios situated around the room. Students were bleeped consecutively and asked to take relevant information over the phone before approaching the corresponding station. Clerking summaries, relevant investigations, NEWS and prescription charts were all provided. As they worked through each station, they would receive further bleeps regarding additional reviews or ward-based tasks. Participants were encouraged to keep a jobs list, write their own prescriptions and complete the relevant forms. Tutors rotated around the room to facilitate the stations. At the end, students were required to handover to the “night team” followed by a reflective debrief.

RESULTS:
N=46 students. They were asked to respond to 4 questions using a rating scale of 1-5 (1=Poor, 2=Borderline, 3=Meets expectations, 4=Above expectations, 5=Outstanding). Results are displayed in the table below:

<table>
<thead>
<tr>
<th>How comfortable do you feel…</th>
<th>Before (Mean)</th>
<th>After (Mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>… taking a handover over the phone?</td>
<td>2.8</td>
<td>4.2</td>
</tr>
<tr>
<td>… prioritising jobs on call?</td>
<td>2.5</td>
<td>4.1</td>
</tr>
<tr>
<td>… organising yourself on call?</td>
<td>2.5</td>
<td>4.2</td>
</tr>
<tr>
<td>… managing unwell patients?</td>
<td>2.4</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Overall, students felt the session enabled them to practise prioritising acutely unwell patients in a simulated high-pressure environment replicating life as a junior doctor. Constructive feedback suggested handouts to refer to after the session and additional practise in documentation.

CONCLUSIONS/ IMPLICATIONS:
We have identified a clear desire from students for interactive, practical sessions such as this to promote confidence in starting as newly qualified doctors. Following such positive feedback, there are succession plans for ‘You’ve Been Bleeped’ to continue for future final year students on placement in the Royal Gwent Hospital.
A CRITICAL ANALYSIS OF THE USE OF THE BEHAVIOURIST DIDACTIC TEACHING TECHNIQUE IN DELIVERY OF PRIMARY CARE DENTAL CORE PROFESSIONAL DEVELOPMENT (CPD) COURSES

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INTRODUCTION:
With further understanding on learning and teaching methods, those which involve active learning strategies and direct engagement of the learner in the learning process have become increasingly popular. A lot of research into these methods shows increased learner motivation and improved educational outcomes when constructivist models of teaching are employed (Nie and Lau, 2010). However this shift in teaching style has been slow in delivering of CPD courses, whereby there is still a preference on using experts in the field to disseminate their knowledge didactically in lectures (Barnes et al., 2013) and courses are objectively-driven to satisfy regulatory requirements rather than to foster professional development.

METHOD:
A literature review was performed into both the behaviourist didactic teaching approach and the constructivist approach to teaching. In addition, a search of current Section 63 courses delivered by NHS Health Education was carried out and assessed for the teaching method being used in each course. The key online database utilised to search for relevant literature was Discover More. An internet search of deanery section 63 CPD courses dental practitioners reveals a few hands-on style courses (which tended to be over-subscribed), but the vast majority being didactic lecture based sessions by experts in their fields. Many of the topics offered are to satisfy regulatory requirements. The variety of courses is limited and the content delivery methods do not encourage team discussions or social constructivism.

CONCLUSIONS AND IMPLICATIONS TO CPD DELIVERY:
As students’ progress and mature, their development should be self-directed (Romyn, 2001) and will be based on past experiences as described in the constructivist theory.

Teaching must not be simply to convey information, but rather it must evolve to become a process of developing clinicians who inquire, reflect and construct. A student-centered approach to professional development and learning will ensure knowledge gained is a reflection of educational needs.

In CPD courses, a shift towards active engagement of participants in group activities and discussions rather than passively listening in a lecture will foster team working abilities and will reflect on how clinicians actually work in their clinical roles. One such method proposed is problem based learning, which has much strength due to its ability to cover a wide range of knowledge and encourage all participants to engage in the learning process and work in a community of practice.

REFERENCES:
TRAINING MEDICAL STUDENTS IN HEALTH COACHING—WHAT WORKS?
Maini A*, Fyfe M, Kumar S
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INTRODUCTION:
Health coaching is considered to be an effective tool in facilitating behaviour change in patients. This study explores the experiences of students being trained in health coaching, with a view to identifying which aspects of training students perceived as most useful in supporting their learning.

METHODS:
We developed an optional experiential health coaching training program for third year medical students consisting of four campus-based small group sessions taking place over four weeks. This training was embedded within a 10-week primary care placement where students were encouraged to draw on health coaching skills where appropriate. The training was developed and led by an experienced clinician and educator who was also an accredited coach. Six focus groups were conducted with medical students (n=39) participating in the training. Focus group transcripts were analysed using thematic content analysis.

RESULTS:
Our analysis identified key aspects of the training experience that supported students’ learning of health coaching skills and transformational shifts towards a solution-orientated mindset. These include personalised feedback on their coaching skills development, inclusion of inspirational anecdotes from clinicians, opportunity and time to draw on health coaching skills in the context of authentic clinical consultations, as well as with each other during classroom-based sessions (including taking the role of a coachee using material relating to their own real-life issues), supportive tutors in their clinical placements who valued health coaching approaches, and provision of relevant reading material.

CONCLUSIONS:
Health coaching training for medical students is best delivered by clinicians experienced in health coaching approaches, supported by relevant learning resources, and designed to incorporate experiential, small group learning to practice skills authentically both in the classroom with each other and in authentic clinical settings, and to receive personalised feedback. Delivered in this way, health coaching training can result in transformational solution-orientated mindset shifts in students, impacting positively on self-reflection, person-centred care and facilitating health behaviour change, and supporting development of their professional identity and values. These skills and values are central to the development of a future medical workforce that can effectively meet the health needs of the population it will serve.
MEDICAL SIMULATION IN CLINICAL ENVIRONMENT

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Simulation is arguably the most prominent innovation in medical education over the past 15 years. Simulation is a well-established tool for training personnel in aviation, the military, and industry and is rapidly being transferred to medicine. Williams et al (1) demonstrated that the simulation experience was rated as a valuable learning experience and highlight that this is linked with better academic performance.

OUR APPROACH:
Usual clinical simulation happens in a non-clinical environment on mannequins before we get them out to the real world. Our approach was to deliver the teaching in actual clinical area with a hands-on experience, teaching, learning and creating critical thinking skills in our participants so they can pick up on changes in real patients. This educational model allows Participants to rehearse behaviors without placing patients or institutional resources at risk.

METHODOLOGY:
Simulation exercises were discussed and planned ahead at monthly Trauma meetings attended by Consultant representative from A&E, Surgery, T&O and Anesthesia. An appropriate time was picked up depending on the A&E attendance. Responsive Portable Mannequin was brought in to the Resus bay in A&E. A Training Trauma call was put out for a pre-designed scenario run by a dedicated Teaching Fellow. The Scenario was overseen by a Senior Consultant with main area of focus being on team approach to decision making, communication and Human factors. Immediate feedback was provided after the simulation scenario.

Fig A- Kirkpatrick Model (2)

Fig B- Stress Inoculation (3)

Usual Simulated learning happen in Kirkpatrick model (Fig A) but simulation in clinical environment also follows a stress inoculation pattern (Fig B). Most participants felt that the simulation training developed their clinical decision-making abilities without potentially putting patients at risk.

CONCLUSION:
Our experiences have shown that simulation in a clinical area works to deepen understanding by enabling linking of clinical decision making and Team communications and human factors.

We believe that such simulation experience provides participants with the confidence to manage similar real-life scenarios without potentially putting patients at risk.

INTRODUCTION:
Local departmental teaching for junior doctors is a mandatory requirement for continuing professional development. In a busy National Health Service, delivering high quality teaching through a traditional in-hours, once weekly model has become increasingly challenging. As medical complexity demands a more collaborative approach to care, this traditional approach also restricts opportunities to deliver interprofessional education (IPE).

In response to these issues, the obstetrics and gynaecology department at Queen Elizabeth Hospital Woolwich have developed a ‘twilight teaching’ programme. Weekly teaching sessions have been replaced with a once monthly, structured three-hour training evening. This programme is open to all stakeholders within the interdisciplinary team.

METHODS:
Each twilight session has a standardised structure; a lecture, a simulated skill or scenario, a participant led case-based discussion, and a lesson focussed on wellbeing at work. Activities in this non-clinical section have ranged from mindfulness to salsa dancing. Attendance is voluntary and sessions are held on different days of the week to maximise inclusivity. With the agreement of managers, all stakeholders receive a half day in lieu for attending a session.

Anonymised feedback was gathered from participants about their opinions on the programme, as well as the usefulness of each individual session. A previously validated rating scale was also used to assess their pre- and post-lecture understanding of each topic. The qualitative data underwent thematic analysis to assess the educational value of the sessions. The quantitative data was analysed to assess for variation in learning between each professional group.

RESULTS:
The programme has seen an increase in attendees compared with weekly daytime teaching. The questionnaire responses showed that the out of hours format and content of the sessions were well received by participants. They also showed an incremental improvement in knowledge amongst each group of professionals.

CONCLUSIONS:
Twilight teaching is a cost neutral programme which provides an excellent model for the delivery of high quality, effective IPE in a busy work environment. The sessions being delivered out of hours has not proved to be a barrier to participation.

Using the lessons learned through our experiences, our programme could be applied at other centres to allow a variety of healthcare professionals to learn with, from, and about one another.
A NOVEL TEACHING TECHNIQUE FOR LASER TRAINING IN OPHTHALMOLOGY

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INTRODUCTION:
Since the approval of the use of drugs for the treatment of diabetic eye disease, the number of laser treatments undertaken has fallen considerably in the last 5 years. Consequently, trainees are struggling to gain experience in this area and so new innovative ways of training in laser treatment and particularly in macular laser treatment are essential. In addition, the idea that one’s first experience of laser treatment should be on an individual patients’ eye is now outdated and the more training that can be provided using simulation and artificial eyes, the higher quality the laser treatment of trainees will be. In 2013 – 2018, Professor Scanlon and his team at Gloucestershire Hospitals NHS Foundation Trust won innovation awards to improve the quality of laser treatment. The project that was called QUILT (Quality Improvement in Laser Training) had four components: 1. The development of an innovative on-line tool to train doctors in laser treatment 2. An on-line course for training in laser treatment for diabetic retinopathy 3. A practical session using trainers each with either two or three trainees at a time being taught on a live laser machine using artificial eyes. 4. The development of thermal paper artificial retinas. This project was initially rolled out locally in Gloucestershire, internationally in China and in Ghana for West African Ophthalmologists.

METHOD:
London Ophthalmology Health Education England invested in the development of the QUILT course and piloted this with 18 ophthalmology trainees in 2019 in order to train them to laser diabetic retinopathy and many other retinal diseases. We supported the trainees through the above model of the pre-learning programme, face to face teaching, supervision of the on-line training tool and a practical session with a real laser machine and artificial eye. An audit was completed of the trainee’s experience of the QUILT programme.

RESULTS:
14/18 (77.8%) and 3/18 (16.7%) trainees rated the course at very good and good respectively. One did not respond. 14/18 (77.8%) trainees strongly agreed and 4/18 (22.2%) agreed that the course met their expectation. Trainees felt the course provided them with a better understanding of laser settings and enabled them to perform laser safely and confidently.

CONCLUSION:
The QUILT programme is a comprehensive and innovated way to train ophthalmologists in the theory and treatment of eye conditions with retinal laser. With the difficulty of trainee’s getting hands-on experience with live patients this programme has shown good feedback and enables the trainee to be prepared and know how to treat eye disease before they are given the opportunity to treat real patients.
AN MRCS FOCUSED TEACHING PROGRAMME FOR NHS GRAMPIAN

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INTRODUCTION:
The Intercollegiate Membership examination of the Royal College of Surgeons (MRCS) is designed to test the knowledge, experience and clinical competence of trainees prior to advancing to higher surgical training. From September 2007 to February 2016 only 61% of UK candidates passed Part A and 72.9% passed Part B MRCS at first attempt [1]. Despite this, within NHS Grampian no formal teaching programme exists for surgical trainees. Therefore, a teaching programme was designed and implemented to improve training.

METHODS:
All foundation year and core surgical trainees within NHS Grampian were invited to attend weekly tutorial sessions focussing on the MRCS curriculum. The sessions lasted 45 minutes and were taught by registrars and consultants within NHS Grampian from a range of different specialities over a five-month period. Every three weeks the teaching session was centred around prosection and cadaveric teaching taught by anatomy demonstrators employed by the University of Aberdeen. Trainees were also invited by the University to teach anatomy from prosection to current medical students as part of their undergraduate curriculum. This process involved a doodle poll sign up system where trainees could volunteer to teach a session that they felt most confident in leading.

DISCUSSION:
Incorporation of a structured teaching programme with the opportunity to teach is useful to further solidify and strengthen understanding amongst surgical trainees as well as to prepare for postgraduate examinations. It provides a platform for trainees to engage with different styles of learning, ask questions and utilise peer-assisted learning. Additionally, it has already been shown that involvement in teaching significantly improves learning amongst medical students [2.] This is due to increased preparation and improvement in knowledge acquisition and retention.

CONCLUSION:
A postgraduate teaching curriculum for the surgical trainee is vital not only for membership examinations but also to improve surgical knowledge and ultimately patient care.

LEADERSHIP BY STAFF AND ASSOCIATE SPECIALIST DOCTORS

Morgan M * (Associate Postgraduate Dean for SAS Doctors Health Education West Midlands); Cowpe J (Leadership Programme Director, Keele University); Birch K (Keele University); Abdalla H (Paediatric Consultant)

BACKGROUND:
Health Education England (West Midlands) is a large deanery with 1210 Staff & Associate Specialist (SAS) doctors across 32 Trusts in the region. SAS Doctors are a very diverse group with regard to their level of knowledge, training and performance, and needs, varying from the newly qualified to those working at a consultant level. Whilst their roles are seen as providing a high service component, the need for professional development and the lack of a structure for educational process is hampering appropriate training and individual development. It is also a largely untapped resource for quality improvement from a sector of the workforce who know the service well. The mission of the HEE(WM) is to promote a strategic and professional approach to ensure all postgraduate education results in better patient care and service. This translates to a strategic vision for the development of SAS Doctors identifying their training, educational and development needs and ensuring that each hospital has a nominated individual as a Trust Clinical Lead for SAS Doctors and to establish links with the Deanery.

To do this, an educational offer includes a leadership training programme modelled on the Medical Leadership Competencies Framework (subsequently succeeded by the Healthcare Leadership Framework) delivered in partnership with Keele University Clinical Leadership Academy. The Keele Clinical Leadership Academy has since 1983 been delivering in-house training in leadership and management for NHS organisations. This experience led to the development of a programme that was bespoke to the needs of the SAS doctors. A focus throughout was to equip participants with the knowledge, understanding and skills to enable them to act with confidence in their roles. This includes taking responsibility for service improvement for the patients they serve.

LEADERSHIP PROGRAMME (DELIVERING THE SERVICE):
Medical Leadership Competency Framework
- Level 1: Demonstrating Personal Qualifications
- Level 2: Working with Others
- Level 3: Managing Services
- Level 4: Improving Services
- Level 5: Setting Direction

More Than 600 SAS Doctors attended over the last 5 years

CONCLUSION:
The programme has been exceptionally well received and made a huge impact on the morale and capabilities of the region’s 1200 SAS doctors, who were previously unaccustomed to having bespoke leadership courses. Many have begun to take responsibility for management of service and quality improvement within their departments and in some cases across organisations. One SAS doctor for example has taken on an Associate Medical Directorship. These changes will inevitably have an impact on better patient care and this impact will be tracked over the coming months.
HOW WELL DOES USING A FLIPPED CLASSROOM WITH BLENDED LEARNING AS PART OF A MASTERS PROGRAMME PREPARE TRAINEE ADVANCED CLINICAL PRACTITIONERS FOR THEIR FUTURE ROLE?

Ogden, S*, Williams, S, Barnes, K, Morgan, C

1 Liverpool Women’s Hospital, Liverpool, UK, 2 Kid’s Health Matters, Liverpool, UK

INTRODUCTION:
Kid’s Health Matters provides a paediatric Master’s programme for Advanced Clinical Practice in conjunction with Liverpool John Moore’s University across 3 pathways for acute, ambulatory and neonatal paediatrics. The clinical components of the course are taught over the first year in a flipped classroom style with online lectures and case based discussions which can be accessed remotely and downloaded for future revision alongside clinical placements over two years. We aimed to evaluate the course and discover if both trainees and their clinical mentors found the course adequately prepared them for their role in clinical practice and how effective they found using a flipped classroom for clinical teaching.

METHODS:
We sent an online questionnaire to all the advanced clinical practitioners and current students who had trained on this programme over the past three years alongside a separate questionnaire to the all the clinical mentors to rate their trainee’s performance throughout the course.

RESULTS:
We had a response rate of 48% from trainees and 23% from mentors. 83% of trainees and 53% of mentors felt they were very or fully prepared for the clinical placement and 51% of trainees and 40% of mentors felt they were very or fully prepared for working as an Advanced Clinical Practitioner although some responders were still to finish the course. The mentors reported improvement in their trainee’s overall knowledge, clinical decision making, clinical and communication skills throughout the course with all trainee’s being average or above by the end. The trainees were positive of using a flipped classroom with over 90% reporting they could access learning in different forms that they wouldn’t be able to in person. It enabled increased participation in scheduled sessions and they were able to ask more focused questions and develop their decision making skills. 100% agreed that it allowed them to work through the content at their own pace. Over 80% of trainees disagreed that it was harder to motivate themselves or manage their workload and 95% trainees disagreed that the content was too complicated to study alone. 78% of trainees reported re-watching online sessions was their main source of revision.

DISCUSSION:
We found that using a flipped classroom for clinical teaching adequately prepares trainee Advanced Clinical Practitioners for their future role and that they recognize advantages of this style of teaching without identifying any disadvantages.
**INTRODUCTION:**

Online learning is well established within medical education but there is limited evidence directly comparing this to face to face teaching. The Master’s degree in Advanced Paediatric Clinical Practice facilitated by Kid’s Health Matters through Liverpool John Moore’s University uses blended learning with the weekly scheduled clinical teaching sessions accessible either online or in person. We have compared the exam performance of those students who attended primarily online to those who attended in person.

**METHODS:**

Through the online server we identified which students accessed each session online with the assumption that if they did not watch the web link they attended in person. The percentage of sessions accessed online was calculated and the students who were in the upper quartile range for their year were classified as predominately online users with the other students classified as attending face to face. A direct comparison was made between the exam results of the two groups.

**RESULTS:**

18 students were enrolled in 2016-2017 across one track and 30 in 2017-2018 over 3 tracks with each track having 4 clinical modules across 3 13 week terms with an average of 25 hours of scheduled content per term. The online access ranged from 11-95% in 2016-2017 and 0-100% in 2017-2018 with upper quartile range 92% and 66% respectively. The average exam results for the students are shown below.

<table>
<thead>
<tr>
<th>2016 Cohort</th>
<th>Exam Result for group</th>
<th>2017 Cohort</th>
<th>Exam Result for group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort</td>
<td>Module 1 Mean</td>
<td>Module 2 Mean</td>
<td>Module 3 Mean</td>
</tr>
<tr>
<td>Online access</td>
<td>73%</td>
<td>71%</td>
<td>79%</td>
</tr>
<tr>
<td>Combination/ in person access</td>
<td>71%</td>
<td>68%</td>
<td>72%</td>
</tr>
<tr>
<td>P value</td>
<td>0.42</td>
<td>0.59</td>
<td>0.59</td>
</tr>
</tbody>
</table>

**DISCUSSION:**

From this analysis of the exam results we have identified that remote online access to clinical teaching is not a disadvantage with the majority of exams showing no significant difference between the groups. There are two exams where the online cohort had a statistically significant difference in their results in favour of online learning although we recognise other confounding factors may occur. This enables more flexibility for distance learning increasing accessibility to the programme. This is echoed by a student feedback comment who stated “I rarely get to Liverpool for sessions as it’s a long commute, but still feel very part of the group and supported by everyone.”
**INTEGRATION OF ULTRASOUND IN MEDICAL SCHOOL: EFFECTS ON PHYSICAL EXAMINATION SKILLS IN UNDERGRADUATES**

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\(^{1}\) University of Catania, Catania (Italy), \(^{2}\) University of Parma, Parma (Italy), \(^{3}\) University of Milan, Milano (Italy), \(^{4}\) University of Bologna, Bologna (Italy)

**INTRODUCTION:**

Since its discovery, ultrasound imaging has rapidly increased its application in almost every medical field. Nevertheless, only few universities provide teaching of ultrasound for medical students in their curricula. Emerging evidence is supporting the use of ultrasound to improve not only ultrasound (US) skills but also non-US skills and knowledge of medical students. The purpose of this review is to point out if the integration of ultrasound lessons into medical students’ curricula improves their learning of physical examination and boosts skills and confidence when performing a physical exam.

**METHODS:**

We performed a systematic review of the existing literature by searching PubMed, Embase and Cochrane Library databases. According to our inclusion criteria, we selected studies of any level of evidence published in peer-reviewed journals. Evaluated data were extracted and critically analysed. PRISMA guidelines were applied, and risk of bias was assessed, as was the methodological quality of the included studies. We excluded all the article with high risk of bias and/or low quality resulted after the assessment.

**RESULTS:**

We applied the previously described criteria and we included 14 articles assessed as medium or high quality. Seven out of eight studies reported statistically significant improvement of physical examination scores and accuracy by students exposed to ultrasound lectures. Ten out of ten studies, which administered self-assessment questionnaires to students, reported strong agreement among students that ultrasound lectures helped them learning and understanding the physical exam and improved their confidence and skills in physical examination.

**CONCLUSIONS:**

There is an increasing evidence that incorporating ultrasound in medical students’ curricula might improve their ability and confidence when learning and performing a physical exam. Further studies are needed to establish this evidence.
GO NETWORK: A LEARNER-DESIGNED MUSCULOSKELETAL TEACHING PROGRAMME FOR GENERAL PRACTITIONERS

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1 North West Thames London, Trauma and Orthopaedics Specialist Registrar Training, 2 North West Thames London, GP Registrar, 3 London, GP, 4 Consultant Orthopaedic Surgeon, London North West University Healthcare Trust, 5 Consultant Orthopaedic Surgeon, Imperial College NHS Trust

BACKGROUND:
Musculoskeletal issues account for 30% of consultations in the primary care setting, yet it is estimated that less than 3% of undergraduate time is dedicated to its teaching, with studies finding up to 80% of new post graduate students failing to display adequate understanding of musculoskeletal topics. Furthermore only 10.5% of GP training programmes placements included a trauma and orthopaedic placement. The GP-Orthopaedic (GO) Network was created by Trauma and Orthopaedic specialty trainees to provide unique learner designed, peer-to-peer teaching to GPs. We aimed to assess its impact on confidence in managing musculoskeletal presentations, and its feasibility for national implementation.

METHOD:
A questionnaire was sent to GPs to identify specific musculoskeletal topics, managed commonly but poorly understood. Confidence was measured on a likert scale of 0-10 and the desire for teaching of topics from 0-5. Consultant orthopaedic surgeons and specialty trainees delivered half-day, themed didactic and practical social group teaching on topics identified as high-demand and/or associated with low confidence. A post-teaching questionnaire assessed i) overall confidence in diagnosing and managing musculoskeletal issues on a scale of 0-10, and ii) confidence in the knowledge and practical skills on a scale from 0-5. Feedback on the quality and relevance of teaching to clinical practice was also collected.

RESULTS:
There were 92 responses to the pre-teaching questionnaire. 73 (79%) of these were trainees, and 25 (27%) had previously worked in an orthopaedic department. The overall confidence of managing orthopaedic topics was 4.9 out of 10 with the strongest desire for teaching on the examination and management of hip and knee pain. 22 trainees attended the teaching session on these topics. The average confidence in dealing with musculoskeletal topics following teaching was 7.1 out of 10. Confidence in the knowledge of hip and knee issues was 3.8 out of 5. Confidence in practical skills was 3.6 out of 5. All the delegates rated the overall teaching as either excellent or very good. 95% of all candidates rated the teaching of knees and hips as excellent or very good in its relevance to application in the primary care setting.

CONCLUSION:
The GO Network is a novel and evidence based teaching approach in which we have identified the needs of the GP learner and provided specialist-led teaching. Our data confirms that GPs have low confidence in managing these patients. Uniquely, our curriculum was designed by GPs so that high-yield and in-demand topics were taught. Our feedback suggests that this is an effective method for increasing confidence in knowledge and performing practical skills. The GO Network will continue to provide further sessions and is a model that can be replicated nationally. This may improve doctors’ and patients’ experience of musculoskeletal care in the primary care setting.
A PILOT ‘FUNDAMENTAL RADIOLOGY’ COURSE: IMPROVING MEDICAL STUDENTS’ CONFIDENCE WITH REQUESTING AND INTERPRETING RADIOGRAPHS

*Patel S
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INTRODUCTION:
Evidence suggests medical students do not receive sufficient teaching in radiology, often expressing apprehension prior to training (1). It is not strictly integrated into traditional undergraduate teaching, nevertheless forms a vital part of clinical decisions. A quality improvement project was undertaken to improve confidence in radiology interpretation prior to ‘newly-qualified’ junior doctors starting on-calls.

PURPOSE:
Aiming to improve confidence with interpreting common pathology on radiographs in preparation for foundation training.

MATERIALS AND METHODS:
Using Plan Do Study Act methodology, Final Year Medical Students at Barnet General Hospital were surveyed to provide data assessing 8 key areas (1= not confident; 5= confident) surrounding radiology knowledge and interpretation. A ‘Fundamental Radiology for Foundation Year 1’ course was organized to address clinical encounters during on-calls. Students completed the post course questionnaire to analyze results.

RESULTS:
13 participants contributed to the project. The mean confidence score was 2.76 pre-teaching and 3.67 post teaching. An unpaired t-test produced a statistically significant increase of 0.92 or 18.40% (p=0.0008 95% CI 0.41 to 1.42). Additionally, paired t-tests showed an increase in confidence for: CXR interpretation by 0.62 or 12.40% (p=0.0068 95% CI 0.15 to 1.08); Musculoskeletal X-ray interpretation by 0.85 or 17% (p<0.0001 95% CI 0.51 to 1.18); and AXR interpretation by 0.69 or 13.80% (p=0.0002 95% CI 0.40 to 0.98).

CONCLUSION:
The results showed an intensive course in radiology increased confidence for clinical scenarios faced as a doctor. Students stated they felt better prepared to discuss scans with an on-call radiologist. Despite a small sample size, this pilot course justifies dedicated radiology teaching in the MBBS curriculum. Further development of the project involves using a series of lectures over a set period of time.

REFERENCE:
CHALLENGING CONVERSATIONS IN MULTI-PROFESSIONAL SIMULATION TRAINING

*Pickup, C.¹, Lumley, G.², Kelly, J.²

¹ Medical Education Department, North East London NHS Foundation Trust, Hawkwell Court, 34 Colvin Gardens, London, ² Medical Education Centre, Barts Health NHS Trust, Willow Lodge, Leytonstone, London

BACKGROUND:
Poor communication can have tragic consequences to a patient’s safety and survival. Despite numerous strategies to improve safety, communication remains a significant challenge and a skill healthcare professionals find difficult. This appears partly to be attributable to high levels of anxiety among healthcare professionals in engaging in these challenging communications. Thus, patient safety and workforce development are intertwined objectives for communication interventions such as simulation based training.

INTERVENTION:
An interprofessional cross-site simulation course for all healthcare professionals was created and funding was awarded for 12 half day training sessions. We collaborated creating pre-course training materials and simulations which could be applied across a range of professions and specializes. These scenarios included conversations with patients about errors, conversations with family members, discussions about discharge planning and treatment plans. The training sessions are simulation based, focussing on reflective and inter-professional learning within the theatre-style debrief after each interaction with actors.

RESULTS:
Pre and post feedback questionnaires have been collected from 42 participants showing 100% would recommend the course to others. Feedback included “An excellent way of and another planned to “stop trying to tell patients what is clinically right and listen teaching and training - challenges our ways of working”, “Helpful to hear how colleagues in other services approach conversations”. It has shown change in practice with one participant responding they would now “think about preparing questions for clients and couples”. We also found an improvement in ability to make collaborative plans, show empathy, and an increased confidence in approaching challenging conversations.

CONCLUSIONS:
We have completed 6 of 12 training sessions. Feedback has been overwhelmingly positive with evidence of planned change to practice and great enjoyment of interdisciplinary learning. In discussions with participants key themes that emerged include, lack of identified space for reflective practice and a desire for further training to approach challenging conversations with colleagues. In particular, we have received requests for whole day sessions to cover a larger range of scenarios, to take the course further afield and expressions of interest for team-based training and even incorporation into a student nursing curriculum.
IDENTIFYING COMPLEX MENTAL ILLNESS IN PRIMARY CARE – SIMULATION TRAINING FOR PRIMARY CARE STAFF

*Pickup, C.*\(^1\), Thomas, B.\(^1\), Khan, A.\(^2\), Carter, P.\(^1\)

\(^1\) Medical Education Department, North East London NHS Foundation Trust, Hawkwell Court, 34 Colvin Gardens, London, \(^2\) Waltham Forest Community Education Provider Network, Waltham Forest CCG, Kirkdale House, 7 Kirkdale Road, London

INTRODUCTION:
Many professionals working in a physical health setting have had minimal training in supporting patients with mental health issues, despite this representing a significant proportion of patients they work with. Equipping as wide a population of primary care staff with skills and confidence to help identify and manage patients with psychiatric comorbidities in the community would provide a valuable addition to their skill-set and help them feel more empowered in supporting and working with this group of patients, without necessarily relying on secondary care or specialist input.

By increasing awareness, empathy skills amongst a diverse range of primary care staff it is envisaged that attitudes and quality of care for this group of patients will improve. By giving appropriate and sensitive training to those on the front line, all patients should benefit from staffs increased knowledge and understanding.

METHOD:
A simulation-based training workshop for Primary Care staff was created, in particular for health care assistants, nursing staff and any other allied health professionals; aimed at those who would like to gain increased skills and knowledge regarding the identification and initial management of less common psychiatric presentations. The workshop topics include Autistic spectrum disorders, dementia, emotionally unstable personality disorder and intellectual disabilities. Each scenario is followed by reflection, debrief and focussed, interactive teaching on the specific topics, relevant to primary care staff.

RESULTS:
1 of 3 courses has run so far with 9 candidates currently having completed the course and given feedback. 100% said they had improved their understanding of those with Mental illness. 100% said they would recommend this course and it was described as ‘informative’, ‘excellent’ and ‘very helpful’.

CONCLUSIONS:
This training is meeting previously unmet needs of training for primary care staff that are key to the assessment and management of patient’s with mental illness. The use of both simulation training alongside focused teaching on specific topics, relevant to the practice of the staff, has shown real interest in the learning and improvement of skills. The interprofessional interactions have resulted in lively discussions and sharing of knowledge of management strategies across different primary care sites.
USING A REFLECTIVE WORKBOOK TO GUIDE LEARNING ON CHRONIC KIDNEY DISEASE DURING UNDERGRADUATE MEDICAL STUDENT NEPHROLOGY PLACEMENTS

Pitrola D*

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INTRODUCTION:
Undergraduate medical students spend a limited amount of time in nephrology. It can be challenging for students to identify relevant learning points from clinical placements and to apply the learning they have gained from more formalised sessions, to clinical environments. Additionally, the complexity of chronic kidney disease (CKD) could be overwhelming for students unfamiliar with the specialty and clinical environment, not least due to the plethora of clinical presentations, investigations and management.

METHODS:
A reflective workbook was designed for 3rd year Cardiff University medical students, using feedback following a tutorial on CKD. This ten-page booklet consisted of reflection points on main topics relating to CKD, building upon pathophysiological aspects previously encountered at earlier stages of the medical degree course. Students were provided the workbook at the time of clinical placements, to use as an adjunct to clinical exposure to patients with a variety of renal presentations, with the aim of stimulating discussions around patient care.

RESULTS:
Written feedback was obtained from 12 students of 14. All reported using the workbook during their placements. All students agreed (4/12) or completely agreed (8/12) that it helped them identify relevant topics. All agreed (5/12) or completely agreed (7/12) that the workbook improved their understanding of CKD. Most students agreed that the workbook changed their approach to the placement (8/12). They commented that the workbook provided a useful means to start discussions with patients and Consultants and that it had encouraged them to revise relevant subject material.

CONCLUSIONS:
This reflective workbook was well received by students on nephrology placement. It served as a useful framework for navigating students through the complex specialty of renal medicine and to compliment exposure to cases during clinical placement. This workbook could feasibly be used consistently for students to provide the means for informal student self-assessment and guide further revision of nephrology topics in the University medical curriculum.

REFERENCES:
‘PASSPORT TO...’ A TRAINING PROGRAMME IN BRONCHOSCOPY, NON-INVASIVE VENTILATION, PLEURAL PROCEDURES AND RADIOLOGY FOR RESPIRATORY ST3S IN HEALTH EDUCATION NORTH EAST (HENE)

Popplewell CR 1*, George K 2, Stock N 3, Tedd H 4, Gonsalves P 5, Harrison RN 6, Leitch DN 6, Messer B 7, Weatherhead M 8, Forrest IA 4, 9

1,6 Respiratory Department, University Hospital of North Tees, 2,3 Acute Medicine Department, Royal Victoria Infirmary (RVI), 4 Respiratory Department, RVI, 5 Radiology Department, Freeman Hospital, 7 Perioperative and Critical Care, RVI, 8 Respiratory Department, Wansbeck General Hospital, 9 Health Education North East

INTRODUCTION:
Performing bronchoscopy and pleural procedures, managing non-invasive ventilation (NIV) and interpreting computerised tomography imaging are core skills new respiratory registrars must rapidly gain competence in. Patient safety can be compromised with less experienced providers. Authors witnessed suboptimal titration of NIV settings and patient safety incidents of missed pneumothoraces pre-NIV.

METHODS:
Trainees and consultants in Health Education North East designed four interactive courses, mapped to the Physician Respiratory Medicine Curriculum, introducing trainees to these skills at the start of training (September - December); Passport to Bronchoscopy using simulation modules (since 2013), NIV incorporating high fidelity simulation (SIM), pleural procedures with practice on manikins and radiology using the MacLab (all since 2017). Specialty trainee 3s in respiratory were invited to all courses and acute medicine to NIV and pleural procedures. Course evaluation forms were completed. After 6 months NIV course candidates were asked about the effect on practice and patient care.

RESULTS:
Bronchoscopy: 38 participants. 36/38 (95%) reported outstanding content and 38/38 (100%) outstanding presentation skills, interaction and ability to answer questions. Candidates felt more confident handling equipment and valued simulation modules.

NIV: 16/17 participants completed feedback. Median score ≥9 in all areas including trainer knowledge, simulation use and interaction. Lectures, notably evidence and troubleshooting, and SIM scenarios were valued. After the course overall median candidate reported confidence improved in: diagnosing type 2 respiratory failure (pre-course 4.5/5, post course 5/5), initiating NIV (3.3, 4.5), titrating NIV (3, 4) and managing complications (2.3, 4).

At 6 months 12/17 candidates replied. Median 8/10 that confidence, competence and patient care and safety improved due to the course.

Pleural procedures: 26 participants. Median ≥9.5 in all feedback areas. Discussing difficult cases and simulation practice were useful.

Radiology: 4/10 participants completed feedback (all in 2017). Median ≥9.5/10 including trainer knowledge, case selection and MacLab use to aid learning.

CONCLUSIONS:
New trainees learn core skills early in specialty training from this dynamic portfolio of courses. Improved knowledge and competence contribute to improved patient care. Skills continue to improve under appropriate supervision in clinical practice.
INTRODUCING PROFESSIONALISM IN A CLINICAL CONTEXT TO EARLY YEAR MEDICAL STUDENTS THROUGH PRE-RECORDED SIMULATION SESSIONS

Princess Alexandra Hospital, Medical Education, Hamstel Rd, Harlow CM20 1QX

BACKGROUND: The General Medical Council (GMC) state that medical schools should “Give professionalism parity with other parts of the curriculum and integrate it in teaching” [1]. Simulation is valid and effective method of medical education, [2, 3]. Shevell et al. showed the use of video clips was well accepted as a method of introducing professionalism [4] however there is little research examining the incorporation of professionalism through simulation video clips and its effects on medical education.

SUMMARY OF WORK: Medical professionals were recorded carrying out a simulation session. A professionalism issue was added to each recording, such as breach of confidentiality. Some also missed key components of the “A-E” assessment [5]. These were played to third year medical students prior to simulation training, who were asked to feedback on the case focusing on three areas: technical and non-technical skills, and professionalism utilising a feedback template. Surveys were completed at the end of the session to evaluate the usefulness of the video session, and its impact on the student’s learning.

SUMMARY OF RESULTS:

<table>
<thead>
<tr>
<th>Question</th>
<th>Average Response (n=8)</th>
<th>Range</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>The inclusion of professionalism had a positive impact on my learning</td>
<td>4.5</td>
<td>3 – 5</td>
<td>5</td>
</tr>
<tr>
<td>The video session helped me to learn how to give feedback</td>
<td>4.5</td>
<td>3 – 5</td>
<td>5</td>
</tr>
</tbody>
</table>

Student feedback regarding the recorded case was positive, averaging a rating of 4.38 out of 5 (1 – Very Unhelpful, 5 – Very Helpful). 88% of students expressed an interest in seeing increased use of recorded simulations in further sessions.

Faculty also noted the video sessions to be positive, and student’s performance in sessions to be markedly improved, in technical and non-technical skills and professionalism.

Qualitative data showed students preferred video cases with imperfections in the A-E assessment, facilitating more discussion in the subsequent debrief session.

DISCUSSION AND CONCLUSIONS: The use of pre-recorded cases introduced the concept of professionalism into acute medical situations at an early stage of training also allowing students to gain insight into how other medical professionals approach acute based care. The addition of pre-recorded cases was accepted well by students and faculty; however, one must consider the observations seen may have been in part, due to ongoing clinical and simulation experience, and not as a direct result of the videos. Further investigation is warranted to clarify our observations.

REFERENCES:
THE USE OF SCREEN-BASED SIMULATION APPLICATIONS IN SIMULATION-BASED MEDICAL EDUCATION: ASSESSMENT OF STUDENT’S LEVELS OF ANXIETY AND PREPAREDNESS

Princess Alexandra Hospital Medical Education Team & QMUL Medical Students, Hamstel Rd, Harlow CM20 1QX

BACKGROUND: The education of students is now more reliant on technology to supplement core teaching [1, 2]. There have been advancements in the use of Virtual Reality and screen-based simulation (SBS) as a digital learning tool, which has shown to have a positive impact on student’s education [3]. Current research focuses on how digital tools have improved learning. Very little investigates its impact on anxiety or preparedness when used prior to simulation training. Tyerman et al. showed that “presimulation preparation … had positive effects on satisfaction and learning outcomes” however their work never studied the use of SBS in presimulation preparation [4].

SUMMARY OF WORK: Prior to simulation training, medical students (n = 18) completed a SBS session using an American application, ‘Full Code’ [5]. Students followed a standardised “A-E” approach [6] to diagnose and manage their simulated patient. Surveys were completed before and after, to evaluate self-reported levels of anxiety and preparation for the upcoming simulation session.

SUMMARY OF RESULTS:

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Average (n=18)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before SBS: How anxious do you feel about participating in the SIM session? (1-Not at all, 5-Very Anxious)</td>
<td>2.71</td>
<td>0.211</td>
</tr>
<tr>
<td>After SBS: How anxious do you feel about participating in the SIM session?</td>
<td>1.86</td>
<td></td>
</tr>
<tr>
<td>Before SBS: How prepared do you feel about participating in the sim session? (1-Very Unprepared, 5-Very Prepared)</td>
<td>3.00</td>
<td>0.008</td>
</tr>
<tr>
<td>After SBS: How prepared do you feel about participating in the sim session?</td>
<td>3.71</td>
<td></td>
</tr>
</tbody>
</table>

Statistical analysis showed a statistically significant increase in levels of preparedness after the SBS session (p<0.05) but student numbers were small. Student feedback regarding the SBS session was positive with an average rating of 4.25 out of 5 (1= not useful, 5 = extremely useful). 67% (n/n) of students expressed an interest in having a separate SBS tutorial. Faculty found the experience of SBS sessions to be positive. However, use of American nomenclature, investigations, medications and units were challenging and following a structured ‘A-E’ model of assessment within the application was not intuitive.

DISCUSSION AND CONCLUSIONS: This project demonstrates that SBS may be utilised to increase student preparedness prior to simulation. This could result in a positive impact on performance and learning within simulation. The development of a similar UK-focused application that encourages assessment using an ABCDE approach could be useful for medical student training in the UK.

REFERENCES:
INTRODUCTION:
The Queen Elizabeth Maternity Unit is one of the busiest units within Scotland, with a delivery rate approaching 6000 births per year. Teamwork is essential to provide safe, efficient care to mothers and babies. We created a new teaching programme for midwives designed to meet the educational needs of the department, focusing on anaesthetic and critical care of the parturient.

METHODS:
The ATOM course was launched in January 2019 at the Queen Elizabeth University Hospital, Glasgow and due to its success was repeated the following May. Topics covered included the management of neuraxial anaesthesia, management of difficult airway scenarios, managing opiate induced respiratory depression and trouble-shooting central and arterial lines. Several teaching modalities were utilised including lecture-based presentations, low-fidelity simulation, hand-on demonstrations and question and answer sessions. The participants were asked to complete an anonymous questionnaire rating their confidence levels in managing each of the topics before and after the teaching sessions with 1 being very confident up to 4 being not at all confident.

RESULTS/DISCUSSION:
A total of 18 Midwives have attended the ATOM course. Anonymised feedback reported that all participants would recommend the course to a colleague and that the confidence levels in managing each scenario had improved following the course.

Table 1. Average confidence levels pre and post ATOM course.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Average confidence level pre-course (1=very confident 4=no confidence)</th>
<th>Average confidence level post-course (1=very confident 4=no confidence)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management of complications of neuraxial anaesthesia</td>
<td>2.375</td>
<td>1.875</td>
</tr>
<tr>
<td>Management of Difficult Airway Scenarios</td>
<td>3.25</td>
<td>1.875</td>
</tr>
<tr>
<td>Managing Opiate-Induced Respiratory Depression</td>
<td>2.375</td>
<td>1.75</td>
</tr>
<tr>
<td>Central /Arterial Lines troubleshooting</td>
<td>2.875</td>
<td>1.875</td>
</tr>
</tbody>
</table>

CONCLUSION:
In house teaching courses such as the ATOM course, are a beneficial and cost-effective method of providing medical education and training within the Queen Elizabeth Maternity Unit.
PSYCHIATRY TRAINEES EXPERIENCES OF TEACHING STUDENTS

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INTRODUCTION:
The General Medical Council’s ‘Good Medical Practice’ outlines that doctors are expected to be “prepared to contribute to teaching and training doctors and students”. Furthermore, the “skills, attitudes, behaviours and practices of a competent teacher” are imbedded in the Annual Review of Competency Progression (ARCP) for trainees. Within the Greater Manchester Mental Health Trust (GMMH), there are opportunities for trainees to deliver and participate in teaching medical students. We therefore decided to compare the experiences of trainee psychiatry doctors facilitating student teaching against the Academy of Medical Educators Professional Standards.

METHOD:
We distributed questionnaires to psychiatry trainees working within GMMH. All trainees had started Core Training and had given at least one teaching session to students. We analysed the data using Microsoft Excel.

RESULTS:
We had 18 respondents to our questionnaires. Initial results show that the majority of trainees felt that their teaching was delivered in a suitable learning environment, with sufficient time to deliver it. Most trainees also collected feedback after teaching, which they reflected on. Though most trainees felt they were given adequate notice, 39% felt they were not. Importantly, we noted that 78% of trainees questioned indicated that they did not have enough time to prepare for teaching in their working day, possibly suggesting that preparation was occurring in their own time.

CONCLUSION:
This local audit overall reflects positively on the environment afforded to trainees teaching students within GMMH. However, it has highlighted areas for improvement, such as a need for improving allocated preparation time for trainees.

REFERENCES:
INTRODUCTION:
We ran a seminar series over 3 months from October to December 2018 covering core medicine and surgery, designed to prepare 6th year medical students for their upcoming finals examinations. The faculty consisted of three junior doctors who constructed and delivered the seminars on a weekly basis to a cohort of twenty students. Each session took on a quick-fire, single-best-answer (SBA) driven approach designed to equip students with focused, high-yield information relevant to finals and clinical practice.

METHODS:
Sessions lasted 90 minutes and typically incorporated 30 SBA’s, with each being followed by a brief discussion of the topic addressed in the question. Modelled on Schön’s double-loop learning theory, feedback was collected from students ‘in action’ (on a weekly basis during and immediately after each session), and ‘on action’ (holistically and more formally following the first 3-month iteration of the series) (1). Following the first iteration of the course, student feedback was analysed in detail and the seminars were subsequently adapted. The series was repeated to the next cohort of students from January to March 2019 and this time included clickers, a classroom-response system, to enable all students present to independently answer the SBA’s.

RESULTS:
Overall feedback was extremely positive, with specific appreciation of the SBA-driven style of teaching. All students in the second iteration of the course felt that their learning objectives were clearly met. Positive comments included:
• Very good recap of the topic – helpful to direct learning
• Great set of questions to illustrate clinical points
• Concise and high-yield teaching focussed on exam skills and questions
• Good to have SBA’s + interactive sessions
• Useful and tailored to finals
• Very effective, very useful, very relevant
• It was useful to answer the questions first and then the tutor explain the points
• SBA’s were good for illustrating clinical points

CONCLUSIONS/IMPLICATIONS:
The benefits of clickers have been widely demonstrated in large lecture-based settings (2), however our feedback has demonstrated significant benefits in student learning in smaller group seminars. Overall, the teaching programme was extremely well received and will continue to be run for final year students at the Lister Hospital.

REFERENCES:
UNDERGRADUATE PAEDIATRIC SIMULATION (UPS) PROJECT

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BACKGROUND:
Simulation has become widely recognised in postgraduate medical training as a powerful educational tool in enabling learners to practice treating emergency scenarios in a safe environment. Its use in the undergraduate curriculum is less widespread, but has the potential to allow students to learn both clinical skills, but also the essential team management and communication skills required when they start work as a junior doctor.

METHODS:
We created a new four week low-fidelity undergraduate paediatric simulation (UPS) programme for penultimate year medical students. Four simulation scenarios were created, mapped to the paediatric clinical practice outcomes for the undergraduate curriculum. Students completed an initial evaluation survey exploring their background confidence level and their views of simulation. The process and aims of the sessions and debrief were also described. Sessions were run as small group simulations with half the students participating in the scenario and half conducting the debrief led by an experienced facilitator. At the end of the four weeks, students completed a further survey to evaluate their perceptions of the sessions and their confidence level.

RESULTS:
In this pilot study 100% of students felt significantly more confident in recognising an unwell paediatric patient and performing a paediatric assessment following the sessions. Qualitative feedback comments from students showed they valued the sessions: “great sessions and so useful to put emergency situations into practice

CONCLUSIONS AND IMPLICATIONS:
This pilot study has shown the value and feasibility of introducing undergraduate paediatric simulation into the curriculum. The next challenge for the paediatric teaching faculty is to spread the success of this pilot to our other peripheral hospital sites who host our undergraduate students for their paediatric clinical placements.
INTRODUCTION:
Despite higher prevalence of mental illness in acute hospital settings, reduced life expectancy in psychiatric patients, poor access to appropriate medical care, and documents such as ‘Treat as one,’ Foundation trainees report little or no exposure to relevant practical mental health training. More than 50% trainees complete their training programme with no Psychiatry placement. Trainees are nervous, avoid managing these situations and perceive patients with mental health difficulties as challenging. We explore feasibility of Simulation based education to address this gap. Trainees will be familiar with simulation, commonly used to develop technical skills in medicine, but may be less familiar when this approach applied to Psychiatry. Robust communication skills to enable psychiatric history and mental state examination are fundamental in recognising psychiatric distress. Therefore simulated patients are used as alternative to mannequins.

METHODS:
Funding was successfully sought for a pilot project from Health Education North East. We identified 2 common simulation scenarios encountered within acute hospital settings which were mapped to the foundation curriculum utilising simulated patients curriculum requirements. They were a) Older person with acute confusion presenting with challenging behaviour and b) Adult refusing treatment following an overdose - mental capacity act vs mental health act.

To maximise experiential benefits, the timetable was designed to run the simulation scenarios in pairs, multiple times throughout the day. Each trainee would take the lead in at least one of the scenarios. This enables 16 trainees to attend over 2 days. The simulation lead, who is a senior nurse with extensive experience of working in mental health liaison teams, would facilitate, observe and debrief the pair of trainees. Sessions will be delivered at the simulation facility in Sunderland University in June 2019.

CONCLUSIONS:
Evaluation results are unavailable at the time of submission, but will include trainee feedback and satisfaction, trainee attendance and practical barriers in running this along with funding implications. Simulation has been well known to be an effective and interesting mode of training, although can be resource intensive. While no substitute to a Psychiatry rotation, this may inject some good quality mental health training to trainees who would have no exposure otherwise and hence improve patient care and safety.
EVALUATION OF A CLINICAL TEACHING FELLOW PORTFOLIO
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INTRODUCTION:
The number of foundation doctors entering directly into specialty training in the UK is decreasing, with increasing numbers of doctors choosing to undertake a clinical teaching fellow year. Although time out of the perceived burden of eportfolios and ARCP process has been listed as a positive part of these roles, teaching fellows have expressed a desire to have some structure to their teaching fellow year. Within County Durham and Darlington NHS Foundation Trust, we recognised that there were specific areas where teaching fellows could obtain structured feedback to aid their development as teachers and also to enhance their CVs. We brought these together to create a dedicated teaching fellow portfolio.

METHODS:
A prototype portfolio was presented to the 2017-18 teaching fellow cohort at our trust and they helped refine it into a tool which they would have found useful. The final portfolio included the following elements:
• Dedicated educator 360 degree feedback tool
• Structured peer feedback on teaching tool
• Peer feedback on examiner technique
• Educational supervision forms specific to the educator role
• Free text questions to enable reflection
The portfolio has been piloted with the 2018-19 cohort of teaching fellows and evaluated using a short SurveyMonkey questionnaire.

RESULTS:
Three out of our four teaching fellows completed the survey. One of the teaching fellows stated that they had forgotten to complete the portfolio itself but nevertheless found the individual tools useful.
For the two fellows who used the portfolio, both agreed that it gave them direction within the role and did not feel that it had been an unnecessary burden.

All three doctors found the peer feedback on teaching and the 360 degree feedback from the team useful. Only one doctor had opportunity to gain peer feedback on examiner technique but this individual found it useful. There were mixed reviews about the free text questions, with one fellow finding them very useful, one not useful and another did not use them.

All recommended that the trust continues to use the portfolio in the future and one doctor made the suggestion that the portfolio could be embedded within the educational supervision process to encourage engagement.

CONCLUSIONS:
Although the evaluations are small in number, they suggest a positive response for the portfolio. We aim to share the portfolio with other local institutions with the aim of repeating the evaluation again with a larger number of teaching fellows next year. We also plan to embed the portfolio discussions within educational supervision as suggested.

It appears that the teaching fellow portfolio may be a good way for fellows to receive developmental feedback on their performance without being an unnecessary burden and we would be happy to share our tools with any institutions who might be interested in adopting the portfolio.
EMPLOYMENT OF A DEDICATED CLINICAL TEACHING FELLOW IMPROVES STUDENT FEEDBACK FOLLOWING THEIR CLINICAL PLACEMENT AT A DISTRICT GENERAL HOSPITAL IN NORTH WEST ENGLAND

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INTRODUCTION: The Royal Albert Edward Infirmary (RAEI) is an associate teaching hospital in Wrightington Wigan and Leigh NHS Foundation Trust (WWL). RAEI receives medical students from the University of Manchester each academic year. Students complete placements on A&E, medical and surgical wards as part of their clinical training. In 2018 a clinical fellow was appointed to facilitate the education of 3rd year medical students and promote a high quality of teaching.

METHODS: After their clinical attachment, an anonymous ‘placement evaluation questionnaire’ is completed by the students. The feedback is collated by University of Manchester and forwarded to the education department at RAEI. Questions are rated on the following scale; 1 - Strongly disagree, 2 - Disagree, 3 – Neutral, 4 – Agree, 5 - Strongly agree. In addition, there is an area for free text comments which are then divided into ‘successes’ and ‘suggestions for improvement’. Feedback scores from the academic year 2017-2018 (prior to the appointment of the clinical teaching fellow) and 2018-2019 (after the teaching fellow was appointed) were calculated and compared.

RESULTS: Feedback was very positive and there was an improvement in average feedback score for 10 of the 11 questions when compared to the previous year’s data (see graph 1).

Positive free text comments included;
• “The supervisor and education staff are excellent”
• “Examination skills were very good”
• “Good quality of teaching”
• “Teaching was really good on this placement”
• “The clinical tutor was very supportive and engaging, she helped build our confidence in examining patients”

CONCLUSIONS: Performance scores in the placement evaluation have improved for 10 out of 11 questions. This is likely a reflection of multiple factors including the presence of a dedicated clinical fellow and administrative staff dedication. Negative feedback was largely centered around cancellation of clinics and lack of WiFi in student accommodation. As a result of these improved scores, WWL is currently on track to receive the ‘Silver Excellence Award’ for clinical teaching from the University of Manchester.
SURGICAL SKILLS CLUB: SIMULATION TRAINING FOR SURGICAL TRAINEES
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INTRODUCTION:
The implementation of European Working Time Directive legislation in 2003 has brought about an unintentional restriction in training opportunities for surgical trainees. Subsequently there is growing interest around simulation training. Literature agrees that simulation can improve competencies and be a useful and safe adjunct in surgical training to compensate for reduced exposure in work2,3,4,5. This abstract explores the introduction of a Surgical Skills Club (SSC) as a platform for regular simulation training for general surgery trainees at the University Hospital of Monklands (UHM).

METHODS:
SSC is held on a bimonthly basis for 1.5 hours prior to a morning ward round. Sessions are held in the simulation ward at UHM and host six participants (FY1 – ST3) free of charge. Equipment consists of condemned surgical instruments, expired sutures and foam mattresses. Wet specimens are acquired by support from Medical Education and Simulation, NHS Lanarkshire. The session is supervised by a Basic Surgical Skills Course qualified instructor on a voluntary basis. The skills practiced include variations of sutures, hand tying and hand-sewn small bowel anastomoses.

RESULTS/DISCUSSION:
Four sessions have successfully been held to date and all have been fully booked, with future sessions confirmed. Participation is enthusiastic and praise is given toward the informal setting, availability of immediate feedback and wet/dry specimens. The cost per session is limited to wet specimen acquisition only.

Using simulation to master basic practical skills enables trainees to direct their cognitive capacity toward wider aspects of operations, thereby maximising on restricted theatre exposure. Limitations to setting up local skills club amongst other hospitals include facility and equipment availability.

CONCLUSION:
This model demonstrates that a voluntary SSC in local hospitals is a feasible, low-cost and popular alternative to larger regional/national events.

REFERENCES:
Supported Return to Training (SuppoRTT) — Educating the Educators. Developing and Delivering a Teaching Programme to Improve Supervisors’ Skills When Supporting Trainees Returning from a Period of Absence

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Following the Acas Junior Doctors’ Agreement in 2016, Health Education England (HEE) was tasked with developing evidence-based, innovative approaches to “remove as far as possible the disadvantage of those who take time out of training”.1 From this, the Supported Return to Training (SuppoRTT) programme came about, with its aim to improve the return-to-work experience for all trainees who have taken time out of training. For the SuppoRTT programme to be fully embraced, it is essential that key educators understand the return process, have an awareness of the difficulties encountered by returning trainees, and knowledge of the strategies and resources available to support them.

We developed an interactive study day, which aimed to improve an educator’s confidence when supporting a trainee’s return to work. At these events, we give a detailed overview of how to best engage with the SuppoRTT programme in the South West, alongside information about valuable resources that trainees can access to improve their confidence and competence. After watching video vignettes of trainees discussing real-life return experiences, educators are encouraged to discuss the challenges and concerns faced by returning trainees and to brainstorm potential solutions. Talks from the Professional Support Unit, as well as a tutorial on wellbeing, are used to demonstrate the kind of additional input needed by some returners.

So far, the course has trained over 65 educational supervisors and clinical educators. Feedback suggested that 90% of attendees strongly agreed or agreed that the study day had improved their understanding of the SuppoRTT programme and their role within it. 100% agreed or strongly agreed that they had a better understanding of the resources available to support returning trainees. Feedback suggested that maternity leave returners were featured too heavily, and that educators felt underconfident supporting trainees with more challenging returns, especially following mental health problems and burnout (burnout is cited as the reason for 50% of junior doctors taking time out between stages of training).2 As such, we adjusted our programme to ensure that the real-life experiences and discussions focused more heavily on the complex areas surrounding these topics. We believe that our innovative approach to improving the support available to returning trainees will help to improve junior doctor morale, improve staff retention and ultimately maintain patient safety.

REFERENCES:
1 Supported Return to Training, Health Education England. 2017
2 Junior Doctor Morale; understanding best practice working environments. Health Education England
DISSECTING WHAT MEDICAL STUDENTS DO IN A DISSECTION PRACTICAL
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INTRODUCTION:
At Leicester Medical School cadaveric dissection forms a core part of the curriculum in Year 1 and 2. In these practicals (1½ - 2 hours), 7-9 students work around a single cadaver. Non-cadaveric resources are provided to support learning e.g. models, images, iPads. With high student numbers to each cadaver, it is impossible for all students to be dissecting at once and thus they often engage in other activities.

There is little research published on how students spend their time during dissection and the perceived usefulness to learning of available resources. The aim of this study was to explore these areas to determine how we can support and encourage involvement of students in making the most of resources during dissection practicals.

METHOD:
An online questionnaire was developed following a literature search and sent to first year medical students to complete anonymously. It was completed anonymously to ensure honesty in answers. The questionnaire contained 23 questions with most utilising a Likert scale. Students were asked to self-report time spent on activities available during dissection sessions and their views on the usefulness of these to their learning.

RESULTS:
53 surveys were returned, showing a large variety of resources are used by students during practical sessions, with the greatest periods of time (30mins – 1hr+) spent with the cadaver: actively dissecting (43%), watching dissection (28%) and discussion with peers (49%). The least amount of time was spent (<20 mins) using: X-Rays/posters (98%), iPads (92%), plastic models (82%) and prosections (77%). Student engagement would appear high: most (62%) spent less than 10 minutes not engaging with activities.

Over 90% of students reported the following resources as helpful/very helpful: speaking to staff, prosections, plastic models, discussion with peers and active dissection. Resources reported as not helpful included: watching the group (30%) or demonstration (28%) and using textbooks (32%).

CONCLUSIONS:
Students report spending a large amount of their time with the cadaver and value this. Less than half spend most of their time actively dissecting but may instead observe dissection or explore other resources. Students rated several non-cadaveric resources, which they spent the least amount of time with, as very helpful, thus increased awareness of these may be needed. Also, discussing findings with staff and peers is beneficial and should be supported.
TRAILBLAZER GP: DIVING INTO THE DEEP END

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AIMS:
The Trailblazer GP scheme supports newly qualified GPs to work in areas of socio-economic deprivation. Practices in these deprived areas tend to face difficulties in recruitment and retention. The scheme provides one year of dedicated time for professional development; education; facilitated action learning sets and coaching. It aims to help with GP recruitment in deprived practices whilst equipping GPs with the skills and knowledge to thrive working in areas of deprivation.

METHOD:
In October 2018, six Trailblazer GPs took up roles in areas of deprivation across Yorkshire and Humber. We have carried out a pilot study for the scheme using focus groups exploring:

- Perception of GPs’ own needs and those of their communities
- Likelihood of GPs working in a deprived setting in the future
- Suggested improvements to the scheme for future years.

This poster will highlight findings from our pilot study.

RELEVANCE AND IMPACT:
Our emerging findings have highlighted areas where the GPs felt less confident and allowed us to shape the educational programme according to the GPs’ needs. The findings also suggest a positive impact on recruitment and retention: Four of the six GPs have said that they applied to the GP practices because of the scheme and all the GPs plan to stay on at the practice they are currently working in.

OUTCOMES:
The results suggest that schemes like this can help with recruitment and retention of GPs in areas of deprivation. It also highlights the importance of peer support for GPs in deprived areas.

DISCUSSION:
This pilot study and future evaluation of the Trailblazer GP project will help shape this and similar schemes in the future supporting both GPs and other primary care staff working in areas of socio-economic deprivation.
THE MEDICAL TRAINING INITIATIVE

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INTRODUCTION:

RCPE’s Medical Training Initiative/International Medical Training Fellowships (MTI/IMTF) enables the College to fill vacant training capacity in the NHS with international doctors. MTI/IMTF thereby supports international medical training and improves global healthcare whilst helping to fill rota gaps to the benefit of UK trainees, the NHS and provision of healthcare UK-wide.

METHOD:

RCPE markets widely to attract MTI/IMTF applicants worldwide. The key requirement is MRCP(UK) or an acceptable alternative, enabling trainees to undertake higher specialty training at ST3+. MRCP (UK) also enables trainees to contribute to the acute on-call take – providing often vital support to the NHS.

International applicants are screened to check they meet GMC and College criteria and have a referee’s confirmation of the JRCPTB Alternative Competences at CT2 level. Qualified applicants are then matched with suitable training placements and interviewed with NHS recruiters and a RCPE clinician via WebEx. Interviews are robust and include Clinical and Ethical scenarios. If successful at interview RCPE then sponsors GMC registration and Tier 5 (two-year) visa applications for applicants.

RCPE provides ongoing support to trainees during their placements as well as free use of the JRCPTB ePortfolio, a College mentor and free College membership benefits.

RESULTS:

RCPE has worked with 37 different Health Boards and Trusts since 2012, placing 117 trainees (number to be updated by poster submission) in the UK in total. Trainees have come from 22 different countries. Feedback from trainees and NHS colleagues has been extremely positive and demonstrates the impact of MTI/IMTF on UK and global healthcare. Cost comparison has also shown a significant saving compared with filling rota gaps with locum staff.

CONCLUSION:

RCPE’s MTI/IMTF programme has delivered significant benefits to healthcare in the UK and internationally over the last 7 years and is expected to continue to support UK and international healthcare in the years ahead.
THE AMBULANCE EMERGENCY OPERATIONS CENTRE: A NOVEL GP TRAINEE OOH PLACEMENT

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CONTENT:
We present a shift structure for a General Practice (GP) Out of hours (OOH) shift in the Ambulance Emergency Operations Centre, aims and objectives for the shifts including RCGP curriculum mapping, and the evaluation of the placement using an end of shift evaluation form.

RELEVANCE:
GP trainee out of hours training opportunities are increasingly scarce, and schemes are seeking new and novel ways of providing this essential experience. The Paramedic Clinical Advisors also see this as a continuing professional development (CPD) opportunity through post-case reflection and peer review – thus both parties have both teacher and learner roles.

OUTCOMES:
40 evaluation forms were received, completed jointly by the GP Speciality Trainees (GPST) and Paramedic – 55% were ST3, 33% ST1/2 and 13% did not state. All shifts touched at least 1 curriculum area (mean 7, mode 10). Both GPST’s and Paramedics reported strong agreement that the shift was both useful and enjoyable. Paramedics reported only some reduced productivity.

DISCUSSION:
This is a novel opportunity to provide out of hours experience to GP’s whilst simultaneously offering reflective CPD to Clinical Advisors. The shift was minimally disruptive to the operations of the emergency service and did not compromise patient safety. Trainee welfare must be considered as there is potential in the shift to witness potentially distressing events.
The leadership of systems of care is increasingly recognised as a core clinical activity for all healthcare professionals. Doctors in particular - because of their power and influence, and the resources they control - must learn to lead. Consequently, the General Medical Council now expects that all postgraduate medical training programmes should equip trainees with leadership capabilities. But many postgraduate medical supervisors feel ill equipped to ‘teach’ leadership and lack confidence to hold formative conversations in this domain.

In 2017, Health Education England published a report on leadership development for doctors in postgraduate medical training. The report, deriving from a national series of stakeholder events (involving over 200 people) and trainee focus groups, examined the state of leadership development for this group and offered a set of co-created principles and recommendations to guide future investment and delivery. The report identified a need for ‘faculty to think differently about their role and to be more confident in brokering leadership learning.’ (p14).

A structured faculty development offer was recommended to focus on providing access to formative experiences, holding developmental conversations and reframing the clinical role. Three existing ‘training the trainer’ programmes were subsequently identified in North West, Thames Valley and Wessex and the West Midlands, all with slightly differing approaches. A further needs analysis was conducted during 2018 through further focus groups of supervisors and trainees.

As a result of the above, a prototype ‘training the trainers’ development programme was designed alongside a comprehensive resource pack. This received an initial piloting as part of a parallel project being run through the Royal College of Emergency Medicine, and then underwent 8 iterations of the programme across England. Following each iteration, the programme and resource pack were amended in the light of feedback obtained. Each session was delivered by a member of the NHS Leadership Academy faculty in partnership with a local clinician educators. The audience was a mixture of supervisors and senior educators. A final version of the programme was arrived at in May 2019 with an emphasis on enhancing developmental interactions between trainees and trainers: ‘Leadership Conversations. Supporting developmental conversations in postgraduate medical training’.

The half day programme offers supervisors real practice and structured guidance to enable them to integrate leadership learning into their regular discussions with trainees. It also familiarises Supervisors with the new ‘Leadership Conversations Resource Pack’, encouraging Supervisors to use it for their own leadership learning as well as for trainees.

The sessions have evaluated well with feedback used to further modify the ‘product’. The programme - slide deck, trainers notes and resource pack – will now be disseminated through deans and their teams for local delivery. Further evaluative feedback will be conducted and regular updates and improvements made.
'LEARNING SET' FOR THE 'UPSKILLED' MULTI-PROFESSIONAL WORKFORCE IN PRIMARY CARE

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AIMS & OBJECTIVES:
The project aims to identify learning needs, provide a structured educational support, a platform to share experience, reduce isolation, boost morale and thenceforth maintain resilience to upskilled workforce in primary care. There is an emergence of upskilled workforce in primary care in the UK due to current demands. This workforce may consist of nurses, paramedics, pharmacists and physiotherapists who have transferred their skills to undertake work that general practitioners (GPs) have historically done such as telephone triage, clinical consultations and home visits. We identified a need to support our colleagues in their evolving roles.

SUMMARY OF WORK:
We adapted the 'learning set' model, which is used locally for GP trainees to facilitate the educational process. The sessions were facilitated by a GP and structured based on the group’s learning needs.

OUTCOMES:
The roles of the multi-professional participants were themed on triage and same-day consultations. Feedback has been positive in all domains such as session relevance, learning experience and quality of teaching / discussion. Participants found the ‘learning set’ to be useful with encouraging comments made about sharing as well as discussing ideas and experiences.

CONCLUSIONS:
The interprofessional 'learning set' has the benefits of small group learning and provides a flexible way of continuously addressing specific educational needs. It contrasts other training courses which tend to be topic-based. It enables those who might be working in isolation to have peer support, share educational experience and clinical skills. We continue to evaluate the sessions and explore the potential to developing a formal curriculum for this evolving professional group.
INTRODUCTION:
With emphasis placed on improving and initiating positive leadership culture within the NHS Long Term Plan, the importance of clinical leadership is to be embedded within all NHS organisations. With the absence of leadership development within the undergraduate dental curriculum, effective leadership qualities are vital within the dental profession at all settings and levels. With the adaptability required for trainees who wish to pursue further training within the dental profession within hospital, community and primary care-based settings it is imperative that the future leaders are supported in leadership development. With dental and medical trainees at all stages of their career possessing many compassionate, inclusive and effective leadership qualities, the importance of developing these skills and talent management is reiterated. With many external companies and leaders of successful organisations offering training and leadership development, we highlight the benefit of novel, clinically led leadership, workshops to allow dental and medical trainees gain an immersive experience into leadership and management skills.

METHODS:
With the initiation of a Midlands and East Clinical Fellowship posts in Dental Leadership, the accelerated development of leadership qualities and skills obtained by the Fellows led to the invitation to host an innovative workshop to the North West Deanery Schools’ Trailblazer conference in Manchester. The design of the workshop involved an interactive based approach to provide a workshop titled ‘Empowerment and motivation within leadership and management in dentistry’. This workshop involved an overview and importance of leadership and management within the healthcare profession, the relevance of leadership to daily clinical roles, leadership initiatives available and provided a supportive environment for interactive practical activities in relation to leadership and management.

RESULTS AND CONCLUSION:
The positive feedback resulted in 100% of participants rating the workshop as ‘excellent’ and all attendees advised they would recommend the activity to colleagues. The feedback received from the North West Deanery school highlighted that the medical trainees who attended advised that the workshop should apply to both medical and dental trainees which highlights the interface of healthcare and that healthcare leadership development can be developed together within the NHS as a whole. We will outline the unique structure of this teaching workshop and discuss the application at all levels of dental postgraduate training.
ANALYZING ETHICS: TEACHING MORAL DISCOURSE AS CLINICAL REASONING

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INTRODUCTION:
Ethical issues occur in every aspect of medical practice and influence the clinical decisions which are made. In teaching clinical ethics attention is often focused on knowledge of ethical theories or professional behaviours. Little attention is paid to the process of ethical reasoning. This process has much in common with diagnostic reasoning. Similar errors and biases may occur.

In a paper entitled Levels of moral discourse, Aiken proposes that the ‘ethical’ response to a situation can be considered at on four different levels. The expressive-evocative level is the initial, unreflective response to a situation. For example the ‘Bravo!’ or ‘Hurrah!’ The moral level is the point we see the influence of rules and norms approved by a community. (Aiken notes that moral discourse seldom progresses beyond this level.) However, sometimes situations arise when it is appropriate to question the validity or applicability of the rules themselves. This is the ethical level. Finally, the post-ethical level concerns the basic assumptions of moral reasoning.

The dual process cognitive model has been applied to the teaching of diagnostic reasoning. Type 1 reasoning is characterized by being rapid, intuitive, and requiring little mental effort. Type 1 thinking frequently involves heuristics, is greatly influenced by context and is prone to bias. Type 1 reasoning is essentially one’s ‘gut reaction’. Type 2 thinking is more deliberate and analytical. It is less context dependent and rules are frequently applied to reach a result. We can compare diagnostic and moral reasoning in this regard. The emotive / evocative response can be seen as analogous to Type 1 reasoning, with the following deeper levels of analysis more akin to Type 2 thinking. As with other types of reasoning, the ethical ‘gut reaction’ may be the correct response but awareness of bias is still important.

METHOD:
In our undergraduate clinical ethics tutorials we used the question of abortion to explore utility of this approach. The 2018 abortion referendum in Ireland had resulted in considerable debate which was covered in the media. An article by Matthew Parris from The Times newspaper was chosen for discussion. In this piece the author, whilst himself a proponent of women’s choice in the matter, voices his concern regarding the lack of respect shown to those with different moral opinions. The students were asked to read the article and then to use the 4 level approach to analyse their own view and also the view of those who would hold the opposing position. The aims of the session being, firstly, to give students a framework for approaching ethical questions, secondly, to help them articulate their own views and, thirdly, to better understand the views of those with who they may disagree.

CONCLUSION:
Feedback from students and tutors was that the framework helped them to better understand the issues and gave confidence to voice their opinions.

3. Matthew Parris. Abortion Triumphantism is deeply troubling. The Times, Saturday 2 June 2018, page 21
PILOTING AN ELECTRONIC PRESCRIBING TUTORIAL FOR POST FINALS MEDICAL STUDENTS

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INTRODUCTION: Prevalence of electronic prescribing and medicines administration (EPMA) systems are increasing. Despite this, recommendations that prescribing should be trained in simulated environments, examples of incorporating EPMAs into prescribing training are scarce. Feedback from post-finals students undertaking prescribing tutorials at our institution indicated a need to utilise our EPMA instead of paper-based prescribing during the tutorials. We describe piloting an electronic prescribing tutorial to address this.

METHODS: We developed and delivered a case-based, small-group tutorial, with simulated clinical context and emphasis on independent prescribing followed by, individualised feedback. This was underpinned by principles from the, ‘WHO’s Guide to Good Prescribing’ and utilised a training version of our EPMA (CSC’s MedChart®). It also incorporated a focused didactic presentation addressing advantages and pitfalls of EPMAs. Post-tutorial, students completed an electronic feedback form on their smartphones via a custom URL containing free-text response questions and five-level, symmetrical Likert items focussing on their perception of the training chart environment and tutorial content.

RESULTS: Completed feedback was received from 42 of 43 students. Figure 1 summarises response to the Likert items. Thematic analysis of the free text responses mainly highlighted students wanted longer/more tutorials covering additional content.

CONCLUSION: So far, feedback demonstrates contextual, practical prescribing teaching within an electronic prescribing training environment is justified. The tutorials were very well received by students who mentioned it as a highlight of the post-finals placement. Future work will include expanding the teaching programme to cover additional topics and use of a validated feedback collection tool to assess it.
SUPPORTING TRAINERS TO UNDERSTAND THE SUPPORT NEEDS OF LEARNERS/TRAINEES THROUGH THE ‘GAME OF TRAINING’ (GoT)

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Progression through postgraduate (and undergraduate) training is challenging. Research shows that a range of complex factors can affect trainees'/residents'/researchers’ ability to complete a training/research programme (Zbieranowski et al 2013; Long 2009; Cox 2006; Reamy & Harman 2006;). To maximise attainment, issues of concern and remediation plans need to be established early.

Evidence suggests that developing educators’ knowledge in supporting trainees enhances positive outcomes following remediation (Steinert 2013, Kilminster & Jolly 2000).

The Professional Support Unit (PSU), Health Education and Improvement Wales (HEIW), have developed and evaluated an innovative and interactive faculty development hands-on game-workshop to enhance skills in supporting learners/trainees. This unique delivery by experienced educators allows participants to work through a variety of challenges that may adversely affect a trainee’s progression throughout the training continuum, focusing on effective support, through early recognition and remediation. This area of educational research is vital to ensure appropriate support for the future healthcare workforce.

We have designed the interactive ‘board game’ to use within workshops to facilitate debate around trainee progression, introduce new strategies and share evidenced-based practice to aid remediation. Participants receive a brief evidence-informed introduction on supporting learners/trainees, explore relevant support strategies have an opportunity, to discuss plans and resources available to resolve any challenges.

Through our interactive study days, workshop feedback and PSU statistics, we are noting a culture change in attitudes towards trainee support mechanisms and remediation from both trainers and learners/trainees. This is supported by a rise in self-referrals in our data and the readiness of engagement where it is clear that trainers have attended training and taken aboard the non-punitive nature of support. This interactive board game is becoming an equally valuable tool for workshops with learners/trainees.

Graph 1: PSU Referral Statistics >2008 onwards
PERFECT PLACEMENT: HOW WELL DOES SELF-ASSESSED COMPLIANCE WITH PERFECT PLACEMENT PROJECT CRITERIA CORRELATE WITH THE STUDENT EXPERIENCE OF CLINICAL ATTACHMENTS?

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BACKGROUND:
The Perfect Placement project is an ongoing enterprise at the Royal Free Hospital, aiming to improve the experience of UCL medical students on clinical attachments. It encompasses ten separate criteria to help guide the development of medical education for undergraduates in clinical rotations. Whilst these criteria are obviously diverse (e.g. curriculum mapping, timetabling, allocation of supervisors, provision of adequate inductions etc.), they provide a set of guidelines with which a module tutor can assess their clinical attachments, the educational experience it provides, and potential areas to improve upon.

METHOD:
Module Leads were asked to self-assess how well they perceived their undergraduate clinical attachments complied with the ten Perfect Placement criteria. They scored themselves with modified Likert scores (0-2, 0 then being interpreted as 0% compliance, 1 as 50%, 2 as 100%). Total compliance was then calculated as a percentage across all ten criteria.

Medical students are asked to fill out feedback for each clinical rotation at the end of three-month blocks. This takes the form of both numerical Likert scoring (1-3 were negative scores and 4-6 were positive, and proportions of positive scores then converted into percentages), and qualitative, free text feedback.

The numerical scores were then correlated with each other: medical student satisfaction against Perfect Placement compliance. Using Excel, a regression line was created and determination and correlation coefficients calculated.

RESULTS:
The determination coefficient was 0.12 and the correlation coefficient was 0.34. These found overall a weak to moderate positive relationship between perfect placement criteria compliance and student satisfaction.

DISCUSSION:
Whilst the limitations of self-assessment and modified Likert scoring converted to percentages hamper the rigour of the data, a clear relationship can be implied from the results and subsequent graphical representation. This has helped to implement Perfect Placement criteria further within the undergraduate education departments of the hospital.
ENHANCING GP TRAINING THROUGH SPECIAL INTEREST PROJECTS
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AIMS & OBJECTIVES:
Innovative projects for GP trainees with special interests to help them develop these, thereby enhancing education for GP trainees who relish challenge and strive to further their knowledge with ultimate aims to improve patient care.

CONTENT PRESENTATION:
Semi-structured interviews with GP trainees undertaking projects/Fellowships in Public and Global Health.

This method allowed collection of rich, contextual data (by audio recording) about trainees’ experiences of the projects, followed by narrative/themed analysis.

RELEVANCE/IMPACT:
This pilot has the possibility to change Dorset GP training to integrate projects more widely amongst our trainees, and to create an atmosphere of inspiring learning & quality improvement.

GP portfolio working is now commonplace. These projects allow trainees to try-out portfolio working, thereby integrating areas of interest in order to enhance their lives as GPs along with patient care.

OUTCOMES:
Additional projects during GP training could increase workload and stress; additional time was allocated to offset this.

Some trainees didn’t intend to continue their area of interest beyond training, but others intended to expand their project once qualified; in one case with the ultimate aim of supporting refugees in a clinical context after an interest in refugee health was cultivated by this project.

DISCUSSION:
Special interest projects can help trainees achieve more during GP training scheme than becoming a GP. It can inspire trainees and help develop areas of interest for the future. This may improve resilience, work-life balance and patient care. It also helps to encourage quality improvement during GP training and beyond.
FACILITATORS AND BARRIERS TO DEVELOPING AN INNOVATIVE INTER-PROFESSIONAL EDUCATION PROJECT BETWEEN MEDICAL AND PHARMACY STUDENTS IN PRIMARY CARE

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INTRODUCTION:
Interprofessional education (IPE) is a well-established method of teaching. There is evidence to suggest that effective collaboration between doctors and pharmacists significantly improves patient care (Gallagher 2012). IPE activities present a number of logistical challenges for healthcare educators. We report on the lessons learned from a small innovative project involving final year medical and pharmacy students.

METHODS:
In 2016, a pilot project was developed involving twelve pharmacy students. The purpose was to provide pharmacy students with greater clinical exposure at undergraduate level and foster collaborative working with final year medical students. The students worked together in GP surgeries in North Staffordshire undertaking consultations together with patients attending acute or chronic GP appointments. There have been three iterations of the project so far involving 28 pharmacy students.

CONCLUSION:
The feedback from students, tutors and patients has been generally positive. Pharmacy students valued the longitudinal nature of the sessions and as a result the sessions were increased from four sessions to six in 2017. Both groups of students reported benefits to working together although the medical students gained more from peer-peer teaching and mentoring than knowledge acquisition. One barrier to the project has been that pharmacy students initially reported a lack of confidence in the clinical workplace and training sessions were developed around consultation skills and therapeutics. A further barrier was the challenge of timetabling and arranging the sessions, which has been mitigated by encouraging the students to be flexible and proactive when arranging dates. Both groups of students reported uncertainty over their roles within the consultation, requiring further guidance from the organisers.

Despite the challenges and small numbers involved, all students reported that authentic, clinically oriented, work-place based IPE was preferable to classroom theory sessions and both schools are committed to continuing to provide the experience.

REFERENCES:
Gallagher RM & Gallagher HC (2012) Improving the working relationship between doctors and pharmacists: is interprofessional education the answer? Advances in Health Sciences Education 17: 247-257
BRIDGING THE THEORY TO PRACTICE GAP USING A SAFE SIMULATED WARD ENVIRONMENT: AN OPPORTUNITY FOR FINAL YEAR MEDICAL STUDENTS TO PRIORITISE AND MAKE DECISIONS INDEPENDENTLY

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BACKGROUND:
A simulated ward experience was piloted over two years at the Wythenshawe campus. This offered final year medical students a novel learning opportunity to work individually as an FY1 to manage the care of 6 simulated patients. The scenarios were purposefully designed to draw out the students’ ability to apply skills that would be required in the workplace as a FY1. This included problem-solving, team working, completion of paperwork, prioritising tasks and also recognising their own limitations in order to achieve the best outcome for their patients.

METHOD:
The scenarios were devised, with input from local foundation doctors, because they represent important areas not covered in their own undergraduate course. All cases were ratified by clinical specialists. Prior to the ward experience, students attended a briefing where they were handed over 6 patients from the evening shift. Students were expected to take notes and prioritise the patients from the information given.

The ward team included; a staff nurse; a pharmacist; a ward clerk; and a healthcare assistant. A senior doctor was available via bleep. Each scenario was 10 minutes. The students reviewed each of the 6 patients individually.

1 Transfusion reaction
2 Acute pain management
3 Discharge after starting warfarin
4 Decline of a patient previously medically fit
5 An unwitnessed in-patient fall
6 Verification of an expected death

A debrief was provided by the team in which the students received constructive feedback on each of the cases and their individual involvement.

RESULTS:
A total of 81 students experienced the ward simulation. Questionnaires using a 5-point Lickert scale were used pre and post the experience. Seventy two students completed the questionnaires. Results are displayed in Figure 1. Qualitative comments were also collected. The average score for how useful the students found the experience in preparing for their FY1 year = 9.2. 0 = not useful and 10 = very useful (Range 6 to 10) (65 responses)

CONCLUSION:
In light of the results we are now in discussion with Manchester Medical School regarding making this experience a mandatory session for their final year students. This would complement other already established preparation for practice training for example the student assistantship.

ACKNOWLEDGEMENTS:
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QUICK-FIRE EAR, NOSE AND THROAT (ENT): A TIME-EFFICIENT AND EXAM-FOCUSED QUESTION-BASED APPROACH TO DELIVERING UNDERGRADUATE REVISION

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INTRODUCTION:
One in three medical schools in the UK do not offer a compulsory ENT rotation. If offered, the mean ENT clinical rotation length is 5 days. Therefore, significant time challenges arise in delivering undergraduate content in ENT. Our aim was to pilot the effectiveness and feasibility of a short multiple choice question (MCQ)-based ENT revision session for medical students.

METHOD:
A 15-minute teaching session on “hearing loss” was delivered as part of an ENT revision evening run by the University of Birmingham’s ENT society in the final term. The same session was delivered 5 times to groups of 10-15 different students.

An ENT registrar led the session, presenting 12 case vignettes on different conditions, using Google Slides as aids. Students were asked to choose which of the conditions, from a list, was most likely followed by a general discussion on the condition based on their clinical reasoning including pertinent aspects of presentation, investigation and management.

All students were asked to complete an online Google Forms questionnaire immediately after the session, rating their agreement on a 5-point Likert scale (1= strongly disagree, 5= strongly agree), and provide free-text feedback.

RESULTS:
Sixty-three fourth year medical students in total participated in the teaching over the five sessions. All 63 students responded.

Students felt the content was delivered at an appropriate level (mean 4.81) and relevant (mean 4.87). Audience participation was encouraged (mean 4.79). Students felt the presentation was a reasonable length (mean 4.56) and given at the right pace (mean 4.62). Overall, the session was rated as high quality (mean 4.78). Common positive feedback themes in the free-text feedback included “case vignettes”, “very useful for exams”, “interactive” and “face-paced”.

DISCUSSION:
Students found the fast-paced question-based session useful, relevant and engaging despite its short duration. Questions based around clinical vignettes offer an alternative, time-efficient and engaging method of teaching the “traditional text-book topics” of background, epidemiology, pathophysiology, clinical presentation, investigations, management.

Such methods presented as MCQs as revision sessions late in the academic year offer additional advantages in simulating exam questions and time pressure.

CONCLUSIONS:
A question-based approach can be an effective method to deliver time-efficient, relevant and engaging ENT content in time-limited conditions.
PAEDIATRIC BOOTCAMP; ARE THEY MORE PREPARED? CHANGE IN PERCEPTION OF STUDENT PREPAREDNESS FOR UNDERGRADUATE PAEDIATRIC ROTATION
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INTRODUCTION: Adult learning theory has demonstrated that small group learning and active learning techniques are superior to standard didactic teaching methods. UCD medical students complete a 6-week rotation in paediatrics in groups of approximately 50-60 students. Upon completion of the module our students have expressed frustration with the ‘prolonged acclimatisation time’ at the beginning of the rotation due to a sense of being unprepared to assess paediatric patients. They attribute this to the use of a less clearly structured or ‘opportunistic’ approach taken when assessing paediatric patients as opposed to the more structured approach taken in adult medicine.

The aims of our ‘Bootcamp’ project were to actively engaged and to
1) empower our students to feel confident in approaching paediatric patients
2) remind students of key knowledge/skills required during the rotation
3) develop a rapport between students and teaching staff

METHODS: Bootcamp was devised and implemented in April 2019. It consists of 8 individual sessions of small group work comprising of activities specifically targeting key paediatric knowledge e.g. vaccinations, or core medical skills e.g. communication.

Students answered an anonymous survey at the end of bootcamp and asked to rate their sense of preparedness (out of 10) at the beginning of the day versus at the end of the day. Each session was also individually rated from 1 to 5 (1 being poor, 5 being excellent) in relation to that sessions overall enjoyability, perceived relevance and perceived usefulness of topic.

RESULTS: 110 students have completed our bootcamp since April 2019. The average preparedness score was 4.4 out of 10 pre bootcamp and 7.3 post bootcamp. This is an overall increase of 2.8. Notably 2 students felt less prepared after the bootcamp with a mean drop in score of 2. Their comments demonstrated this was due to their realisation that paediatrics was more complicated than they first thought.

Paediatric vaccinations and paediatric history taking scored positively in all areas of feedback however sessions identified for future improvement include childhood development and the communication session.

DISCUSSION/CONCLUSIONS: Going forward bootcamp requires further iterative work to improve its delivery and content. We also plan to compare our student’s overall module marks with those of “pre bootcamp” students to assess if students exit exam marks are statistically any different than previously. Overall our bootcamp is a positive learning experience for students and our faculty have noted an improvement in our student’s ability to engage earlier with paediatric patients.