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SUPPORTING THE FUTURE WORKFORCE: CLINICAL INFORMATICS IN MEDICAL EDUCATION – THE NORTH EAST AND NORTH CUMBRIA APPROACH

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INTRODUCTION:

In line with the national agenda (Topol, National Health Service/NHS Long Term Plan) on a technology driven NHS, Health Education England working across North East and North Cumbria (HEENE) explored how medical education could enhance workforce development and by extension improve regional general health outcomes.

METHODS:

A mixed methods approach using 3 online surveys, stakeholder events recording quantitative and qualitative outcomes (Walpole et al 2016) amongst both Doctors-in-training in the region and experienced faculty of the North East and North Cumbria Faculty for Clinical Informatics, Education and Training (NENCFCIET). Responses obtained over 6 months. Ethical approval was sought from Newcastle University but was not required.

RESULTS/CONCLUSION/IMPLICATION:

Response rate for 3 online surveys was 13.7-20.0%. There was poor awareness/knowledge of clinical informatics amongst doctors in training (47.9%); very few (4.0%) had attended a prior clinical informatics event. There was high willingness (92.4%) to attend clinical informatics training (if provided in the region) with over three quarters (81.7%) desiring this training integrated with ongoing specialty training. Essential aspects of clinical informatics training identified by the Doctors-in-training were **Quality Improvement > eHealth, the future direction of clinical care > Communication and Information Transfer**. This contrasted with experienced Faculty (NENCFCIET) who identified **Introduction to Informatics, Data Information and Knowledge, Information Governance and Patient Safety** although agreeing that integration into specialty training in an appropriate format is beneficial. Both perspectives would be used in developing a workshop that supports doctors in training in engaging with clinical informatics.

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PROMOTING SELF COMPASSION IN THE UNDERGRADUATE MEDICAL CURRICULUM

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BACKGROUND: Data collated from Universities shows an unprecedented increase in levels of distress, anxiety, depression and loneliness among students and a decrease in trust, a sense of belonging, community and connection (Perks 2018; You Gov, 2018; BBC 2019; NSS 2018; UOE 2018) This include serious negative effects on physical health, mental health and well-being between various socio-economic and cultural groups and includes painful feelings of isolation, suicidal behaviour, less restorative sleep, elevated systolic blood pressure, diminished immunity, and cardiovascular disease (Masi et al., 2011).

The significance of this sweeping tsunami of mental angst, isolation and distress among the brightest minds of our generation is yet to be understood.

SUMMARY OF WORK: We proposed and conducted joint teaching with the University Chaplain on self compassion for our undergraduate medical students. In addition we performed a literature review to understand whether the ways in which offering self-compassion workshops and other supportive teaching in a medical curriculum offers opportunities for a significant and transformative shift in the way that medical students together experience University living,

SUMMARY OF RESULTS: This work continues however preliminary work indicates that Students appreciate the opportunity to discuss self-compassion and the impact of various stresses on their well being. Research identifies the core role of compassion and self compassion in enabling social and economic sustainability. Cultivating self compassion promotes social sustainability that fosters creativity, innovation, and positive regard and facilitates social connections which are a key individual and societal-level resource leading to both individual wellness and individual- and organizational-level performance (Pessi et al. 2017; 2018).

DISCUSSION AND CONCLUSIONS: This work including further self compassion workshops aims to improve our understanding of compassion, collegiality and wellbeing in medical curriculums as well as model ways to integrate compassionate and collegiate thinking into educational environments. Its goal is to create the environment and culture where students can develop the inner strength, dexterity and leadership capability to navigate complexity and build solutions towards a sustainable future

TAKE HOME MESSAGES: Joint working, compassionate curriculums and self compassion workshops offer us away forward in increasing students well being in an increasingly fractured global environment.

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TIME TO 'GO GLOBAL' WITH GP EDUCATION

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INTRODUCTION:

Globalisation is having a significant impact on health and it has been argued that it is time to 'Go Global' in developing curricula for postgraduate medical training (1). Currently, General Practitioners (GPs) training in the UK receive little formal training in this area - despite the fact that managing non-communicable diseases is a significant, growing health need in low to middle income countries, and an area of expertise for doctors working in primary care. The aim of our work was to provide GP trainees with an overview of the key issues and challenges in global health, and to evaluate their perception of the importance to develop knowledge and competencies in global health.

METHODS:

Education on global health was incorporated into the Dorset GP training scheme for 120 junior doctors working in primary care. This included an overview lecture focusing on the importance of equity, followed by GP trainees' choice of five (from ten) workshops, which included: fever in the returning traveller; public health response to a humanitarian crisis (Ebola); antibiotic resistance; the value of primary care in healthcare systems; the power of technology to transform global health; update on HIV; perinatal mental health; primary care in rural Nepal; childhood morbidity and mortality in Africa.

FINDINGS:

GP Trainees rated the education as highly relevant and useful. They were keen for further regular updates and the ability to link with specific projects. Comments included "very stimulating and inspiring", "brilliant to gain insights into such a variety of global health issues", "evoked much important and inspiring discussion amongst us all".

CONCLUSIONS:

Global health education needs to be systematically incorporated into all postgraduate medical curricula. GPs trainees clearly understood the value of developing their competencies in global health. Given the positive feedback, we have incorporated global health training into our curriculum with a new compulsory workshop for all first year GP trainees. This will include an overview of the UN Sustainable Development Goals (2) and the importance of 'Leaving No One Behind', with updates this year on HIV, migrant health and wellbeing, local food banks and zero hunger. We have also established a Dorset Global Health Network which now runs regular education and networking events for anyone interested in global health.

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(2) <https://www.un.org/sustainabledevelopment/sustainable-development-goals>

1-4

CAN WE LET FOUNDATION TRAINEES TEACH MEDICAL STUDENTS? THE VALUE OF A FORMAL NEAR-PEER TEACHING PROGRAMME

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INTRODUCTION:

In an increasingly busy and stretched NHS, it is becoming harder to secure senior-led teaching for medical students; the solution could lie in our Junior Doctor population. For a number of years informal near-peer education has been on the rise, with opportunities often restricted to clinical skills and ad-hoc bedside teaching. The literature evaluating near-peer teaching links the close proximity of age and experience with a more comfortable learning environment. There is little evidence to suggest the content of near peer teaching is significantly worse than that of senior-led teaching.

METHOD:

An evening teaching programme was coordinated by the clinical teaching fellow and delivered by foundation doctors to final year medical students. Teaching sessions were focused on common topics encountered in the written examination or single best answers (SBA) as well as common scenarios in the objective structured clinical examinations (OSCE). Sessions lasted approximately one hour, on a weekly basis. Students were assigned to one of two groups, which focused on either SBAs or OSCEs for one cycle, and were then placed in the alternate group for the following cycle. Students provided feedback at the end of each session. This was completed using Likert scales, ranging from strongly disagree (1) to strongly agree (5).

RESULTS:

353 teaching sessions were analysed and were rated an average of 4.6 out of 5. 89% of students felt content was delivered at the 'right level' for them, 93% of students felt tutors encouraged to participate and 88% felt more confident in approaching finals'. Positive comments highlighted "engaging and interactive" teaching overall. Points for improvement predominantly focused around requests for session content to be more representative of those in their actual examination.

CONCLUSION:

The formalisation of this near-peer education programme addresses student concerns regarding a conducive environment to learn and satisfies their educational needs, whilst developing junior doctors' teaching and organisational skills. Such programmes, once quality assured, could be incorporated in medical school curricula in bridging the gap between senior-led teaching and peer-assisted learning. To further develop this programme, tutors involved should undergo formal training on teaching skills and be briefed on student expectations from the medical school.

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SALARIED PORTFOLIO INNOVATIVE SCHEME (GP SPIN) – PILOTING A MODEL TO ADDRESS GP RECRUITMENT IN NE LONDON

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Consulting

INTRODUCTION: The problems of General Practice recruitment are well known. There are difficulties in retention, lack of exposure in the undergraduate curriculum and an ageing workforce.

The GP Forward View encouraged new post-CCT fellowships to provide further training opportunities in areas of lowest GP recruitment. These are intended to encourage new CCT holders to work as GPs in those areas, whilst pursuing special interests and addressing local needs. A particular problem in our area was that newly qualified GPs were choosing to work outside of the area, exacerbating the difficulties in recruitment.

We describe the Salaried Portfolio Innovative Scheme (GP SPIN) – a collaboration between partners in local health economy involved in undergraduate and postgraduate training of GPs in the area. The GP SPIN scheme allowed newly qualified GPs to work on a permanent salaried contract for 4 to 7 sessions a week in a practice of their choice and to couple this to one session per week in a portfolio option for one year.

METHODS: In the first year 7 doctors were recruited to the following portfolio options: young persons mental health, community paediatrics, medical education, dermatology. Additional options offered but not recruited to included quality improvement, palliative care and dementia care.

In addition the GP SPIN recruits were released for one session per month for a peer learning and support session facilitated by the local CEPN. Topics they wanted to explore included, career progression, NHS models, appraisal, employment issues and finance for the individual and practice.

Wider benefits include greater collaboration amongst partners in the local health economy, working across primary care interface, GP integration into health system at start of career and in keeping with integrated care systems.

The medical education fellow led teaching in their practice for 2 year groups on community placements across the academic year. The fellow attended practitioner development sessions provided by the Medical School GP Unit and was supported in preparing their application for a teaching qualification (AFHEA). Fellow and student feedback was very positive and the host practice will continue to provide placements.

IMPLICATIONS: We describe future plans to match funding for portfolio options by the host organisation to allow 2 portfolio sessions per week. We have secured funding to appoint a human resources specialist to refine contracting arrangements across organisations.

There is hope of securing funding to continue to employ GPs in their portfolio role due to the unique skill set they can bring. This recognises the unique contribution of GP to other sectors. We will evaluate the second year and promote benefits of GP SPIN beyond North East London.

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1-6

EQUIPPING TOMORROW'S DOCTORS - IT IS TIME FOR A FORMAL UNDERGRADUATE ACUTE MEDICINE CURRICULUM

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BACKGROUND:

The Royal College of Physicians' Future Hospital Commission report recommends emphasising training in Acute & General Medicine to meet the needs of our current and future patient demographic.¹ Acute Medicine (AM) has a robust postgraduate training programme² but dedicated undergraduate AM curricula are less developed.

AIM:

Our aim was to design and deliver an undergraduate AM teaching curriculum across 13 hospital sites for all final year medical students (approximately 400 students per academic year) of King's College London (KCL) School of Medicine.

METHODS:

In 2016, we designed and started delivering the new 'Acute Care' block as part of the KCL MBBS Curriculum 2020, with learning outcomes mapped to Acute Medicine competencies and the GMC guidance on 'Outcomes for Graduates'.^{2,3} Since then, all final year KCL students have been placed on 8-week AM clinical placements across 13 hospital sites. The placements have been complemented by an induction programme that includes AM-focused lectures and simulation scenarios (Appendix 1), and a weekly case-based tutorial programme mapped to the AM learning objectives. Each student is given a named supervisor and a structured portfolio with defined supervised learning event (SLE) requirements. The project has been evaluated using the formal KCL End of Placement Survey (EoPS) results which included quantitative scores and qualitative free text feedback. Results from 3 consecutive academic years have been collated.

RESULTS:

This programme has been running successfully for 3 consecutive years. Throughout this time, the curriculum has been well-received, with EoPS data demonstrating an average global score of 4.10 out of 5.00 (96% average response rate). The programme has been highly valued for providing a safe learning environment (4.38), good quality of teaching (4.20) and placements where students felt they were a part of the clinical team (4.17) with clinical experience that were relevant to their learning outcomes (4.08).

CONCLUSION:

Having a formal undergraduate Acute Medicine curriculum in every medical school is key to equipping our future doctors with skills to meet the needs of our current and future patient population. We have demonstrated that this can be sustainably and successfully designed and implemented, with results suggesting potential for a highly positive impact on undergraduate medical education.

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1-7

HAS A PRESCRIPTIVE APPROACH ON LEADERSHIP AND MANAGEMENT SKILLS RESULTED IN POOR COMPLIANCE? A PILOT IN SOUTH LONDON ST3 CLINICAL ONCOLOGY TRAINEES.

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BACKGROUND:

Advances in cancer treatment continue at a rapid pace, patient numbers are climbing and there is a significant workforce shortage. Skilful leadership and management are required to make the most of limited resources in an evolving field.

Leadership and management features heavily in the Royal College of Radiologist's 2016 Clinical Oncology (CO) Syllabus, however, there is limited scope for formal development in this area.

AIM:

The Spiral Leadership Toolkit (SLT) was introduced to help trainees practically develop these competencies during ST3 training. Based on the NHS Leadership Academy's Healthcare Leadership Model, it includes eight domains, e.g. finance and risk.

METHODS:

A pilot study involving all new South London CO ST3 trainees present at regional induction in September 2019. The objective was to complete at least two projects from the eight domains during ST3. To demonstrate compliance, trainees were advised to upload evidence onto their e-portfolios as part of ARCP (May 2019).

A mid-point survey was administered to understand how the SLT had been used and any challenges faced to date. A subsequent post-ARCP survey is currently being performed.

RESULTS:

Of 14/15 (93%) trainees responded to the mid-point survey, only 4/14 (29%) had used the SLT to complement their training and 7/14 (50%) trainees had included SLT in their Personal Development Plan. 9/12 (75%) felt that they had received neutral or limited support from their NHS Trust and 7/14 (50%) stated that they didn't have time to participate. There was a general theme of dissatisfaction with additional learning and comments included 'Another hoop to jump through' and a 'mandatory form filling exercise'.

DISCUSSION AND CONCLUSION:

Although trainee engagement with the SLT has been disappointing, half of trainees have included the SLT in their PDP, demonstrating a future intention to participate.

Many reflected on the realistic pressures of being a new CO ST3, with clinical competencies, postgraduate study and exams taking priority. Major barriers include a lack of protected time for leadership projects, limited consultant awareness of SLT and minimal support from NHS Trusts.

It is likely that a one size fits all approach to leadership development won't work.

A prescriptive approach of SLT being an ARCP requirement without adequate local awareness and support has resulted in reduced trainee uptake. More work is needed for the SLT to be used as intended.

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IMPACT OF SIMULATED ON-CALL SCENARIOS ON MEDICAL STUDENT CONFIDENCE

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Keywords:

On-call, Simulation, Medical Student.

INTRODUCTION:

Each year approximately seven and a half thousand final year medical students start foundation year 1 posts in the United Kingdom. One particular aspect reported as causing significant worry is that of resident on-call working, which requires a unique blend of medical knowledge and non-technical skills.

METHODS:

We devised an immersive on-call simulation for final year medical students using a hospital's digital task management system with the aim of improving student confidence in working on call. The students were questioned as to their perceived preparedness for working on-call, understanding of the role expected of them, their perceived ability to prioritise tasks and to escalate unwell patients using a standardised communication tool (SBAR) before and after completing the session.

RESULTS:

A total of 51 final year medical students took place in the teaching program. More than half had no previous on-call experience or had only shadowed a senior doctor. We attained a significant improvement in student confidence with preparedness for working on call, awareness of the role of an on-call doctor, prioritisation skills and knowing when to escalate to a senior doctor.

CONCLUSION:

Our study identified that the use of a digital task allocation system used for a simulated on-call is a feasible method of improving student confidence in working on call. The program has numerous advantages in teaching medical students over traditional paging 'on-call simulations'. It is less labour intensive, provides exposure to out-of-hours computer systems that are increasingly used across the NHS and is replicable across multiple sites – an important consideration in curriculum development allowing a uniform experience to a large number of medical students in a distributed training model.

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VIRTUAL REALITY (VR) - CAN IT HELP IMPROVE COMMUNICATION SKILLS?

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AIMS & OBJECTIVES:

To explore the use of a Head Mounted Display (HMD) to develop General Practice trainees communication skills. Virtual Reality (VR) is used to train medical professionals, more often teaching procedural skills e.g. surgery. VR is increasingly being used for training in non-procedural skills. VR is an evolving technology that has a place in medical education to teach communication skills.

SUMMARY OF WORK:

A non-clinical scenario was used; groups of four trainees/educationalists worked together under time pressure to complete stages in the game 'Keep Talking and Nobody Explodes' - a 'bomb disposal' puzzle using the HMD with a corresponding manual containing instructions on how to 'defuse' it. Interactions between the person wearing the headset and those with the manual were observed and fed back. A post session questionnaire was subsequently completed.

OUTCOMES:

A pilot study cited the session helpful, reporting the HMD facilitated the teaching of communication skills and had advantages over traditional consultation skills teaching sessions. Trainee self reported confidence increased in using clear communication skills avoiding jargon, working in an environment where they could not see the patient (mirroring online/telephone consultations), data gathering in a situation working under pressure and managing uncertainty. Trainees also felt their team working skills had developed.

CONCLUSIONS:

This novel approach has appeal to the new generation of trainee -the 'digital native's'. Advantages of using VR include the opportunity for trainees to be exposed to parts of the curriculum that may be difficult to teach and practice without risk to the patient.

1-10

REG READY: A NEW PROGRAM TO PREPARE CORE MEDICAL TRAINEES FOR LIFE AS THE MEDICAL REGISTRAR

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BACKGROUND:

The Medical Registrar on-call is seen as a particularly challenging role within hospital medicine. Core Medical Trainees (CMTs) often express concerns about their ability to fulfil this role. The particular challenges of the role are rarely covered formally in the training scheme.

We set out to design a more structured program to prepare CMTs for work as the Medical Registrar, which included the opportunity for hands-on practice with formal feedback.

METHOD:

Three training sessions were provided in CMT teaching, exploring common problems the Medical Registrar faces during an on-call shift and addressing specific concerns raised by trainees.

All CMTs who had passed their membership examinations were then given the opportunity to act up as Medical Registrar between 08:30 and 17:30 during an on-call shift. During this period, they were expected to answer phone calls, co-ordinate the medical team on-take and take all referrals from GPs and A&E staff.

Each session was supervised by an Acute Medicine registrar, who was supernumerary to the shift and present to answer questions and provide feedback.

At the end of the shift, the trainees were provided with written feedback from the supervising registrar, the on-call consultant and the A&E nurse-in-charge.

The program was evaluated using pre and post-course questionnaires.

RESULTS:

On average, trainees reported feeling less than confident taking on the Medical Registrar role. Less than half felt their training had provided adequate preparation for the job. Managing a team of doctors and providing advice to General Practitioners and other specialists were identified as particular worries.

Trainees rated the experience of acting-up very highly and reported that it made them feel more confident holding the Medical Registrar bleep. They particularly valued the opportunity to practice independently without interference. Direct feedback was likewise well-received.

CONCLUSION:

Trainees do not feel Core Medical Training prepares them adequately for working as the Medical Registrar. Opportunities to act up independently under arms-length supervision should be incorporated into Internal Medicine Training to help trainees build confidence prior to their first year as a registrar.

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BEDSIDE TEACHING FOR MRCP PACES: IS THERE AN APP FOR THAT?

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BACKGROUND:

Medical trainees are required to pass the Membership of the Royal College of Physicians (MRCP) PACES examination prior to the commencement of Higher Training.

The examination assesses a candidate's ability to diagnose and make clinical judgements by identifying physical signs. Bedside teaching - where a candidate's technique can be critiqued by a senior clinician - is an essential part of examination preparation.

In today's busy NHS, arranging senior-led bedside teaching around clinical commitments can be difficult. Innovative solutions are required.

METHODS:

We explored whether an app could help organise ad-hoc consultant-led teaching. We chose to use a free version of the "SetMore" class-booking app and set up a "North London PACES" account.

Once added to the system, consultants and registrars could program in their availability as "Class Sessions". Candidates were then able to book in via the NorthLondonPACES.com website. The system would automatically email tutors once someone booked into their session. The program was advertised to PACES candidates via posters and WhatsApp groups.

The program was evaluated using booking data from the app itself as well as feedback from candidates and tutors in multiple exam diets.

RESULTS:

In the initial pilot (April to June 2019), over 20 sessions were offered by eight tutors at Royal Free and Barnet Hospitals. Seven PACES candidates booked into the sessions. There was a considerable increase in consultant-led teaching compared to the previous diet.

The opportunity to arrange teaching via an app was well-received by candidates, who valued the simplicity and not having to "chase" consultants for teaching. However, there was some apprehension from consultants regarding the app, and several of those approached did not make use of it.

There were some issues with the free version of the app, most notably a limit of 20 tutors, which limits expansion of the project without additional funding.

CONCLUSIONS:

Using an app to pair tutors with exam candidates for bedside teaching has great potential, but there are limitations to the apps currently available for free. A bespoke app would be preferable and have considerable utility throughout both undergraduate and postgraduate education.

1-12

AN ENHANCED SYSTEMATIC HUMAN ERROR REDUCTION AND PREDICTION APPROACH TO FUNCTIONAL ENDOSCOPIC SINUS SURGERY: A PILOT STUDY TO IMPROVE PRACTICE AND TRAINING

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INTRODUCTION:

The Systematic Human Error Reduction and Prediction Approach (SHERPA) has been applied to Functional Endoscopic Sinus Surgery (FESS), identifying tasks/subtasks (using a Hierarchical Task Analysis, HTA), potential errors, consequences and strategies for recovery, error probability, criticality and remedial strategies. However, these tasks/subtasks are influenced by the complex sociotechnical system in which they are performed, including people, their experiences and non-technical skills, tools/technologies used, the operating theatre environment, as well as organisational (e.g., local training) and external factors (e.g., guidelines). These work system factors from the Systems Engineering Initiative for Patient Safety (SEIPS) model provide a systematic way of uncovering the complexity of FESS as done versus as imagined. This pilot study aimed to study the complex system in which FESS is performed in order to enhance the current SHERPA for improving future practice and training.

METHOD:

Non-participant observations of fifteen FESS procedures and semi-structured interviews with two consultant surgeons, two trainee surgeons, one anaesthetist, and one nurse were conducted in one hospital. The observations involved noting differences to the previously constructed HTA and adding the relevant system factors influencing each task/subtask, with additional elicited information from the interviews. Deductive thematic analysis was performed.

RESULTS:

FESS performance differed from the previously constructed HTA, with not only variations in the order in which subtasks were performed but also in the way they were performed. FESS performance was influenced by a complex interaction of work system factors, ranging from the team members and their level of training/expertise to the tools/technologies used (e.g., microdebrider) and their availability.

CONCLUSIONS/IMPLICATIONS:

The current pilot study revealed that the FESS tasks/subtasks are only part of the system and the identification of other relevant influencing factors allows the enhancement of the current SHERPA. The emergent nature of FESS performance in the complex sociotechnical system in which it occurs allows for a more systematic way of creating safety through improved checklists that incorporate high risk tasks/subtasks and associated system requirements, as well as through improved training that incorporates the system and associated non-technical skills requirements to navigate it.

1-13

UTILISING PLAYFUL LEARNING AND GAMIFICATION TO ENHANCE ENGAGEMENT AND LEARNING WITHIN MEDICAL EDUCATION | THE EDUPLAYTION EDUCATION INCUBATOR PROJECT

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INTRODUCTION:

Identification and implementation of engaging, evidence-based virtual learning environments is a priority within modern education systems in order to meet the demands of an increasingly digitally focussed student population, promoting deeper learning. Within this area, concepts such as curricula co-design, blended digital learning platforms and playful learning are increasingly becoming of interest as a way of increasing student engagement and satisfaction. Within the University of Exeter Medical School, there is a similarly identified need for the enhancement of innovative digital learning tools in accordance with the **Education Strategy**.

METHODS:

Through an Innovative **Education Incubator** programme, a two-phase project was curated to assess the use of online learning resources and experiences of playful learning by BMBS Medicine students. Initial scoping of the current literature and informal student focus groups led to the creation of Phase 1; a monthly, transdisciplinary Faculty Learning Community (FLC). This series of monthly sessions ran with a curriculum designed to initiate conversations surrounding playful learning, the psychology of play and the design of innovative playful learning objects. Thus far, the FLC has attracted attendance from a vast array of academics from multidisciplinary areas, alongside groups of medical students, and has helped to initiate a vibrant discussion surrounding playful learning in higher education. As a playful enterprise, our sessions continue tackle tough concepts by applying a playful lens, engaging attendees in creative pedagogies which attendees can take away and develop within their own learning and teaching. Our FLC is also digitally badged, with alignment to the UK Professional Standards Framework, allowing attendees to build a portfolio of evidence for fellowships.

The ongoing summation of data from this FLC has additionally informed Phase 2 of our project; the creation of two immersive and constructively aligned learning objects, featuring playful learning strategies and reward systems that can be embedded within the BMBS curriculum. These resources will immerse students in a programme of interactive video masterclasses, podcasts and games, each aligned to playful assessment of learning with contemporaneous feedback.

CONCLUSIONS:

This project has highlighted the potential for playful learning and gamification adjuncts to increase student satisfaction and engagement. We have initiated a healthy appetite for ongoing discussion surrounding the role of playful learning and have allowed students to steer the direction of conversation with regards to the creation of 2 playful learning objects that aim to act as adjunct within our blended learning strategy.

1-14

STRUCTURED EVALUATION - HEALTH EDUCATION ENGLAND WORKING ACROSS YORKSHIRE AND THE HUMBER - REGIONAL CLINICAL INDUCTION PASSPORT

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INTRODUCTION:

In 2013 HEE Yorkshire and Humber launched the regional clinical induction passport for doctors in training. The aim of the clinical induction passport was to:

- Develop a single resource that would be accredited by all employers and have transferrable training records across NHS organisations and reduce the burden of repeated induction.
- Integrate learning through interactive scenarios to ensure that not only core knowledge is covered but to also influence behaviours and change in practice.
- To provide an orientation to the employing organisations.

The clinical induction passport is an online clinical simulation with 6 scenarios containing a range of professional and clinical topics and embedded core mandatory training.

EVALUATION:

We have explored the utility, acceptability, the quality of learning and behavioural change in practice. The views of other stakeholders were collected by semi-structured telephone interviews. Trainees' views were collated using an online evaluation at the end of the passport.

RESULTS:

Thematic analysis of 2100 evaluations, included 5152 statements in relation to learning and 1560 statements in relation to proposed behavioural change.

Top 10 areas of Learning		Top 10 – Behavioural Change	
Safeguarding and Vulnerable patients	882	Documentation	190
Fire management / safety	444	Local Trust protocols and policies	185
Handover and SBAR	396	Safeguarding & Vulnerable patients	169
Hand hygiene	365	Handover and SBAR	136
Mental capacity	355	Hand hygiene	121
Safe prescribing	232	Prioritisation & escalation	103
Documentation	200	Communication and dealing with difficult scenarios	71
Consent	194	Allergy	64
Allergy	191	Safe prescribing	52
Communication and dealing with difficult scenarios	171	Professionalism	49

In terms of utility our stakeholder's views and that of trainees highlight that the passport is an effective and efficient way of delivering a wide range of core topics for doctors in training and is preferable to repeated local induction. It has significantly increased overall compliance with mandatory training.

CONCLUSIONS:

The regional clinical induction passport is an effective high-quality online simulation resource. It has supported standardisation of practice with regional accreditation and transferability of training records between organisations. A critical success factor to this project has been the regional collaborative approach, bringing acute Trusts together within HEE. Going forward there is a need to review the purpose of induction and explore the current model of provision of induction in the light of emerging national products, ever increasing demands on induction and the differing requirements based on specialty and seniority.

1-15

ARE WE SINGING FROM THE SAME HYMN SHEET? – STANDARDISING REGIONAL TRAINING FOR FOUNDATION DOCTORS

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INTRODUCTION:

Regional training across Yorkshire and the Humber varies significantly in name, number and content despite the geographical similarity. This increases confusion for trainees and workload for administrators.

METHODS:

A survey was distributed to all foundation trainees in Yorkshire and the Humber on their opinions of the regional training they receive. 29% response rate (348 responses) with a representative distribution across Yorkshire and the Humber. These responses were used to develop a series of interventions to restructure and standardise the training received.

RESULTS:

18% of responses indicated that the titles of the training days were inconsistent. 73% reported that this caused confusion. The primary intervention was simplifying and restructuring the regional training day programme (Figure 1). Each training day had the relevant curriculum items defined to clarify the primary outcomes for the training to facilitators and trainees. Supporting documents were standardised to reinforce the structure and curriculum items including the introductory slides, agendas and feedback forms.

IMPLICATIONS:

Standardisation of the basic regional training structure ensures that training is clear, comparable and trainee-focused. It was an intentional decision to focus on the structure of training rather than the content as it was identified as a key concern of foundation trainees surveyed with the potential for the greatest impact.

FIGURE 1 – Standardised structure of the regional training days

F1

0	ILS etc
1	Careers
2	QI
3	Simulation (title of course in brackets)
4	a Local training day (if applicable)
	b
	c
	+

F2

0	ALS
1	Careers
2	QI
3	Simulation (title of course in brackets)
4	a Local training day (if applicable)
	b
	c
	+
5	Teach the teacher
6	WAM
7	BTG

1-16

DESIGNING A MULTIPLE LEVEL, PARTNERSHIP-BASED LEADERSHIP AND EDUCATION DEVELOPMENT PROGRAMME TO IMPROVE THE EDUCATION AND EXPERIENCE OF DOCTORS IN TRAINING IN SURREY AND SUSSEX TRUSTS

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The Health Education England, Kent, Surrey and Sussex (HEE KSS)/ Brighton and Sussex Medical School (BSMS) Leadership and Education Fellows project aimed to improve doctors' education as experienced by trainees and Trusts. It was designed on the hypothesis that a ST3+ level Fellow could be the 'difference that makes the difference' to improving the educational experience of trainees.

Fellows are recruited to a one-year Leadership and Education Fellow post with 60% of time on the development programme, leading education improvement projects and studying a Postgraduate Certificate in Leadership at BSMS and 40% time on clinical duties. Now in its third year, to date 14 Fellows have participated across nine Trusts in Surrey and Sussex.

The programme is delivered using a partnership approach between HEE KSS, BSMS and recruiting Trusts. It supports retention of doctors who have an opportunity to step out of training, providing developmental experience for those considering a career that may include leadership and/ or education.

METHODS FOR THE WORK:

The programme is underpinned by knowledge and expertise in adult learning and development programme design, particularly around combinations of work based learning and academic study. It reflects principles captured in the model for clinical leadership programme design¹. The design includes:

- Postgraduate education – Certificate in Healthcare Leadership and Commissioning
- Six Learning Network meetings to further develop Fellows' personal skills and attributes as influencers of change and to strengthen professional capability and confidence as educators, leaders and enablers of improvement
- Change project(s) to be delivered over the 12-month programme in employing Trust
- Project management through BSMS

Directors of Medical Education contributed, inter alia, by defining intended outcomes at different levels and assessing impact on a six-monthly basis. Current Fellows provided mid-point feedback on their experiences of the different components of the programme design to ensure it meets identified needs informs plans for the next intake.

CONCLUSIONS/IMPLICATIONS:

The learning design has enabled deeper learning about leadership for the Fellows and helped them to have a positive impact on the educational experiences of doctors in their Trusts. Fellows have produced posters and abstracts² based on their projects and learning.

The programme outcomes to date indicate that continued engagement of all organisational parties supports the delivery of key benefits.

The partnership approach between Trusts, HEE KSS and BSMS provides opportunities for learning and impact for them as well as for the Fellows and trainees.

¹ Stoll L, Swanwick T, Foster-Turner J, Moss F. Leadership development for junior doctors: What can we learn from "Darzi" Fellowships in clinical leadership?" International Journal of Leadership in Public Services, 7; 4 273-286; 2011

² Abstracts submitted by Perry and Leung to DEMEC

1-17

CAN A MEDICAL STUDENT SIT IN WITH YOU?' MAKING THE MOST OF A FLEETING VISIT TO A SEXUAL HEALTH CLINIC

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INTRODUCTION:

There is nothing worse than 'sitting in' on a clinic when the purpose of this is unclear to both student and teacher. Sexual health covers two clinical specialties, Community Sexual and Reproductive Healthcare and Genito-Urinary Medicine, neither of which gets much exposure in the undergraduate curriculum. The student may only have one opportunity to attend a sexual health clinic during their training; with little prior background knowledge and limited teaching time in a busy clinic, there is a potential for disappointment and frustration for both parties.

METHOD:

Each 4th year medical student on the obstetrics and gynaecology rotation at our hospital was timetabled to 'sit in' on an integrated sexual health clinic. The intended outcomes of 'sitting in' were reviewed in consultation with the local education lead and students themselves, and were deemed vague and unrealistic.

A 3-hour interactive workshop for up to 6 students was offered prior to each individual attending a clinic. This introduces components of sexual health that are difficult to access in another format; a handout lists resources for gaining theoretical knowledge of contraception and the diagnosis and management of sexual infections. The workshop and clinic session focus on the communication skills required for taking a sexual history and responding to requests for contraception. Activities include:

- Looking at who might access a sexual health clinic, and why
- Practicing how to 'sell' contraceptive methods – understanding the importance of using appropriate language and considering the impact of bleeding patterns
- Ranking contraceptive efficacy
- Calculating when emergency contraception can be offered
- Taking a sexual history from someone with symptoms of infection
- Case discussions looking at moral and ethical challenges

CONCLUSIONS:

Students come with a hugely varied experience and vocabulary for discussing sexual health – some have a personal background of contraception use or of accessing sexual health services, and others find the whole topic embarrassing and mysterious. Following the workshop, students report that they are able to make more sense of the clinic session; they understand the context and can appreciate some of the barriers that patients experience when trying to access sexual health advice. They enjoy being able to use their new skills – teaching the correct use of condoms, explaining how tests are performed, being involved in the history taking and examination of patients, and feel more confident about talking about sexual health issues. The feedback is enthusiastic, with a number rating it as their most useful learning experience of the year.

1-18

IMPROVING OBSTETRIC ULTRASOUND TRAINING IN YORKSHIRE AND THE HUMBER

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INTRODUCTION:

The Royal College of Obstetricians & Gynaecologists (RCOG) sets out the expected sonography skillset through its basic ultrasound modules. Progression from ST3 to ST4 training requires competence in both modules with assessments (OSATs) conducted by a consultant or accredited trainer.

At present, there is no uniform national approach to the delivery of training or assessments, with provision delegated to each individual hospital. In 2018-19, HEE Yorkshire and the Humber funded a project as part of the Future Leaders Programme to assist trainees in the region with this issue.

METHODS:

A region-wide survey was conducted across 20 hospitals and 105 trainees with a response rate of 66% (n = 69).

- 80% reported dissatisfaction with the current state of training
- 48% reported difficulty in undertaking assessments
- 62% expressed concern over the negative impact this would have on their ability to progress

In order to address this, a novel course was developed to assist trainees in meeting their mandatory assessments and piloted this training year. BOUTOS (Basic Obstetric Ultrasound Training and OSATs) directly addresses the issue of trainees not being able to undertake assessments. It achieves this through the provision of –

- Regional sessions
- Small groups (5-6 trainees)
- Dedicated assessors
- Selected patient volunteers

This environment offers the opportunity for multiple OSATs in accordance with the RCOG curriculum.

RESULTS:

- 100% of trainees strongly agree that the course has helped with their ability to progress in training
- 100% of trainees strongly agree that they would recommend the course to others

OUTCOME:

Following an overwhelmingly positive response, BOUTOS is to be formally adopted into the updated training programme in Yorkshire and the Humber.

1-19

THE IMPACT OF INTRODUCING A REGIONAL SPECIALTY-SPECIFIC TEACHING PROGRAMME IN MEDICAL ONCOLOGY

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BACKGROUND:

Medical oncology is a fast-paced evidence-based specialty focused on the delivery of an increasing number of complex therapies. Specialty trainees must remain up-to-date across a wide range of tumour-types throughout their training, readily integrating new information into routine practice. They are required to develop an in-depth understanding of a broad range of topics associated with cancer care, including its biology, genetics and therapeutics. Training is broadly set out into tumour-types correlating with clinical rotations, assessed with on-the-job training in addition to the specialty certificate examination (SCE). In the 2018 GMC survey, trainees within Health Education North Central East London (NCEL) region rated regional teaching as poor. Our aim was to determine if the introduction of a tumour-focused teaching programme in medical oncology would improve trainee experience and satisfaction.

METHODS:

Medical oncology specialist trainees within the NCEL region were invited to complete a survey in July 2018 (n=15) and again in May 2019 (n=16) concerning their teaching / training experience pre- and post- introduction of a specialty-specific regional teaching programme. The 3-monthly afternoon sessions delivered core tumour-specific topics, as well as specialty subjects linked to the training curriculum. 3 half-day teaching sessions were held over 9 months with mean 18 attendees (range 13-24). Quantitative (5-point Likert scale) responses were collected and analysed using descriptive statistics, whilst an emergent thematic approach was used to code qualitative responses.

RESULTS:

Trainee satisfaction (rated satisfied / very satisfied) improved significantly (6.7 vs 100%) following the introduction of specialty specific regional teaching. Trainees valued a tumour-directed approach (100%) and a well thought out programme (100%) delivered by high calibre, knowledgeable speakers (100%). Trainees also appreciated an opportunity to network with (83.1% rated very important / important) and socialise with (75%) their peers. However, introduction of the programme had no impact on trainee confidence in the requirements of their SCE between 2018 (60% rated negatively) and 2019 (68.7%). Trainees described a benefit of receiving quality up-to-date presentations covering specialist areas of the training curriculum.

CONCLUSIONS:

Specialty-focussed regional teaching can facilitate the delivery of a broad-based curriculum in oncology and improve trainee satisfaction. Trainees value the teaching experience and the opportunity for networking and peer support equally. Future focus on exam preparation has the potential to further enhance trainee experience.

1-20

IMPROVING TEACHING FOR MRCPCH WRITTEN EXAMS IN WALES

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INTRODUCTION:

To become a Member of the Royal College of Paediatrics and Child Health (MRCPCH), a trainee paediatrician needs to successfully pass three written exams. General Practitioners (GP) interested in paediatrics have to sit two of these papers if they want a Diploma in Child Health. Uptake of MRCPCH written exam teaching sessions in Wales has been poor for three years, with several sessions cancelled due to lack of attendance. However, interest in the sessions remained high among examinees. The aim of this project was to explore examinee experiences with the teaching programme, to encourage suggestions for improvement and to use this to design a new teaching programme.

METHOD:

A survey was sent to the following doctors in Wales; Paediatric trainees, Medical Training Initiative doctors in paediatrics (MTIs), and Foundation Trainees and GP Trainees interested in sitting paediatric exams. Data were collected from February until March 2019. Questions included quantitative information on exam teaching uptake as well as qualitative questions on suggestions for improvement.

RESULTS:

There were 17 respondents; 14 Paediatric Trainees, 2 MTIs and 1 GP Trainee. Attendance to teaching for those who had sat the first, second and third papers were 53.5%, 58.3% and 40.0% respectively. The most common reasons given for not attending teaching were having prior clinical commitments (47.1%) or the teaching being held too far from their base hospital (11.8%).

Trainees were asked to rate how useful they found teaching sessions they had attended. The results were; Not at all Useful 0.0%, Not So Useful 21.7%, Somewhat Useful 26.1%, Very Useful 34.8% and Excellent 17.4%. Examinees who attended teaching liked having the opportunity to go through practice questions with explanations for senior colleagues. However, there were several suggestions to improve uptake including; the need for better access to teaching sessions and specific teaching on the most difficult topics.

CONCLUSION:

A new teaching programme was devised with the core aims being to (i) improve access and (ii) to improve examinee satisfaction with teaching delivered. Material taught in previous tutoring sessions were recorded as video podcasts and moved online. Several difficult subject areas were identified by examinees and video podcasts are currently being produced for these topics. Teaching is also to be advertised to Foundation Trainees and GP Trainees in Wales for those interested in child health.

Though not directly specified in the feedback, many other interventions are also being introduced; improving trainee support with a peer support network and mentorship opportunities for struggling examinees, devising ways to celebrate trainee success in exams and formally recognising the contribution of colleagues who produce teaching materials. This project will be re-assessed in a years' time to determine whether uptake and satisfaction has improved.

1-21

DR WHO? - AN INTERACTIVE METHOD OF ENGAGING IN PUBLIC CONSULTATION TO INFORM UNDERGRADUATE MEDICAL EDUCATION

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BACKGROUND AND PURPOSE:

The updated Outcomes for Graduates (2018), published by the General Medical Council (GMC), identifies the need for medical schools to expand and broaden the role of patients and the public in medical education across undergraduate MBChB training. This sentiment underpins a large curriculum review currently underway within the School of Medicine at the University of Dundee.

The aim of this student-led project was to conduct a series of consultations with the public, asking the question 'if you were to be involved in helping train the doctors of the future, what would you want them to know matters to you?' The intention was to keep the question as broad as possible. The question was inspired by the national 'What Matters to You' campaign, which encourages and supports meaningful conversations between those who provide and those who receive healthcare. In particular, 'seldom-heard groups;' meaning those who may experience barriers to accessing services or are under-represented in healthcare decision making, were important to include.

METHODOLOGY:

This project involved approaching different communities in Dundee, including; the Corner (a sexual health clinic for 11-19 year olds), Dundee Carers Community, a local Augmentative and Alternative Communication group, Longhaugh Primary School, the School of Medicine at the University of Dundee Open Day, NHS Tayside Public Partners, Healthy Villages Project (Oban), a healthcare assistant working in Ninewells Hospital and a local artist who identifies as part of a Black and Ethnic Minority group.

Data was gathered using written responses from the participants which was analysed using thematic framework analysis.

RESULTS:

Five main themes arose from the data collected. They included:

1. The culture of medicine and medical school
2. Medical school assessments
3. Teaching medical students
4. Patients, the public and the medical school
5. Attitudes

DISCUSSION:

The data gathered demonstrated that the local Dundee community (and those living in rural locations) would value having a role in medical undergraduate education.

It is hoped that this project will not only allow the medical school to meet the GMC's Outcome for Graduates in terms of broadening the role of patients and public in medical undergraduate education; but also have an added value for Dundee University medical students by using the opinions and experience of our local community to shape what it means to be a graduate from the School of Medicine at the University of Dundee.

1-22

SIMULATION OF ON-CALL STRESS FOR FINAL-YEAR MEDICAL STUDENTS

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INTRODUCTION:

Each August thousands of new doctors take up their first posts. This represents a vulnerable period where they are particularly at risk of stress, with higher levels of stress and fatigue linked to poorer patient outcomes. Stress-based simulation has been used by many authors to simulate on-call work with evidence that students find it beneficial to experience stress in a safe environment.

METHODS:

A night-time simulation was designed, where a single medical student recruited by convenience sampling was required to manage a septic patient whilst being distracted by bleeps and queries from other staff. They had telephone support of a simulated medical registrar. Hot debriefing followed the 'debrief diamond' structure. An pre- and post-survey evaluated self-perceived confidence of candidates in managing acutely unwell patients and prioritisation of tasks.

OUTCOMES:

One FY1 doctor and six final-year medical students took part, with three additional students joining debrief only. The simulation usefulness was rated a median of 100% (n=6), and improved subjective confidence and prioritisation skills by a median of 25% and 16% respectively (n=6). Candidates appreciated the intensity of the simulation and requirement for knowledge of managing bleeps, logistics, and escalating early.

DISCUSSION:

Resource intensity limited this simulation with it only being possible for one student at a time, limiting its spread to the candidate pool as a whole. However, this work is to be adapted and combined with another in-situ ward-based simulation to create a new induction programme for doctors joining the Trust in 2019, to prepare new doctors for on-call work.

1-23

CONCEPTUALISING COMPLEXITY AND UNCERTAINTY: A THEORETICAL FRAMEWORK FROM THEMATIC ANALYSIS

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Future doctors will learn and work within volatile and changing circumstances. The need to be adaptive to complexity and uncertainty has been recognised across multiple professions.

Discussion of complexity and uncertainty in health care has increased in America*, Canada*, and Australia* and now introduced in the General Medical Council's outcomes for graduates 2018 as an expected outcome of the curriculum. Students will be expected to understand these themes in context of situations that may experience as part of their training and further careers.

Complexity science is not a novel concept but has gained traction in the academic community, albeit localised to specialty journals. Furthermore, these articles have limited their research to theoretical, rather than practical application*. The concepts behind these phenomena has not been well circumscribed for learners and educators in medical education*.

The aim of this research was to conceptualise the common terms used when discussing complexity and uncertainty (from both health care and complexity science) into a coherent, practical map that can be used as a point of reference for students and educators.

A literature search and theoretical thematic analysis* was performed across articles collected from Embase and PubMed when searching for ("Complexity" OR "Uncertainty") AND ("Healthcare" OR "Medicine".) Abstracts were read to generate codes and analysed for themes. International papers were included, but UK articles were preferred as they considered NHS or university curricula. From these articles, ten themes were considered and organised on a concept map containing four main groups - recognising complexity, complex needs, recognising uncertainty and organisational uncertainty. The map sits upon a conceptual 'balance board', to reflect that future doctors will have to balance these forces equally.

Organisational uncertainty takes into account the adapting and evolving system in which health care exists yet is structured in a meticulous self-organised way. People who use the health care service are also complex, with physical manifestations of psychiatric illness and vice versa. As the population density and average age increase, accumulating chronic conditions make initial diagnosis and management challenging. However, future doctors should be reassured that we have toolkits to recognise and manage uncertainty at a primary and secondary care level for complex social and health needs. When in doubt, all health care workers should reflect together and make sense of the world around us, to enhance the resilience of the health care team.

Through isolating these themes, we hope that medical educators can plan and structure their undergraduate and postgraduate curriculums accordingly with a framework.

1-24

DESIGNING A NEW UNDERGRADUATE CURRICULUM FOR GENERAL PRACTICE USING THE RCGP CURRICULUM AS A CONCEPTUAL FRAMEWORK

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INTRODUCTION:

ARU is a new School of Medicine with the strategic intention of making general practice (GP) an attractive career choice for graduates, which aligns with Health Education England's goal to increase recruitment into GP (By choice not by chance, HEE, 2016).

METHOD:

To design a new GP curriculum that would be directly relevant to future practice we used a conceptual framework based on the 5 Areas of Capability derived from the Royal College of GP Core Curriculum Statement, "Being a General Practitioner" (RCGP, 2016). The Areas of Capability include:

- Knowing yourself and relating to others
- Working well in organisations and systems of care
- Managing complex and long-term care
- Caring for the whole person and the wider community
- Applying clinical knowledge and skill

Within each 'Area of Capability', three over-arching themes were further described to help define the content of formal teaching within the conceptual framework over the first three years of the course:

Year 1 – navigating the landscape

Year 2 – the patient experience

Year 3 – the doctor-patient relationship

These overarching themes then informed the learning outcomes and suggested learning activities, which were used to guide GP teachers and placement providers.

CONCLUSIONS:

After the first year of delivery it is evident that from the perspective of GP educators, direct reference to the postgraduate GP curriculum has made it easy for them to understand the philosophy and application of the curriculum, making the implementation of this brand new curriculum feasible in terms of design and implementation. As yet it is too early to demonstrate the benefit to medical students.

1-25

THE HUB - A USER-CENTRIC PLATFORM ENHANCING EDUCATION FOR PAEDIATRIC TRAINEES: COLLABORATIVE CASE DISCUSSIONS

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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. Educational uses include exam preparation, monthly training days, learning points from courses/conferences, and case discussions.

AIM:

Increase the effectiveness of The Hub as an educational tool by gathering user feedback to guide further development.

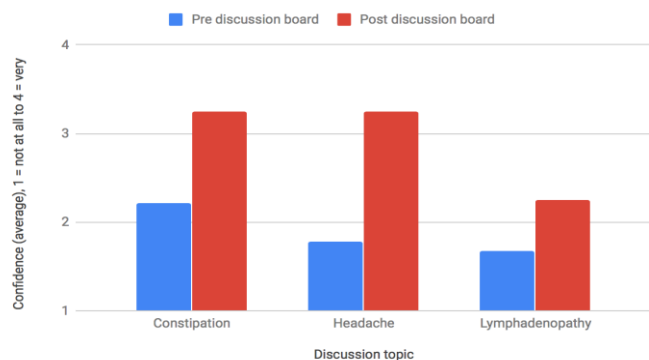
METHODS:

- (1) A voluntary online survey was sent to Hub users to assess overall educational value a year after launch.
- (2) As part of encouraging junior trainee engagement, a consultant-facilitated pilot case discussions board was set up. A common paediatric presentation was chosen for discussion each month, focusing on a different aspect each week. Data was collected on confidence managing each condition pre- and post- intervention.

RESULTS:

From 31 survey responses, 67.7% felt The Hub had contributed overall to their education. Identified barriers included lack of trainer engagement and variable usage amongst trainees, particularly junior trainees.

The case discussion board was well received, with all post-intervention responders stating it was very or extremely useful. Self-reported confidence levels increased following all discussion topics. The level of participation varied between trainees. Participants highlighted the importance of balancing depth of case exploration with the time available for discussion.



CONCLUSION:

Two-thirds of survey respondents felt The Hub has contributed positively to their education within the first year. Active trainer participation and continued educational outcomes targeted specifically at sub-groups of trainees aim to further enhance this.

The case discussion board pilot demonstrated that trainees find this collaborative approach to topic-based learning useful and effective. By incorporating feedback, we plan to develop and extend this model.

1-26

NEW ADDITION TO NORTH EAST RESPIRATORY TRAINING 'TRAINEE SELECTED COMPONENT.'

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The North East has developed a new and unique element to its respiratory training program: the trainee selected component. During a two month block the trainee is taken off the on call rota and has the opportunity to focus their learning on areas of subspecialist interest, to create an individualised timetable to their interests and training needs.

This module gives trainees the chance to cover elements of their training that they feel they would benefit from additional experience in. Additionally, it allows professional development and enables training to take place outside the traditional structure. Trainees direct their own development and seek opportunities outside usual clinical practice.

To date, aspects that trainees focused their two month block on included occupational lung diseases, (clinics, visiting other specialist centres outside of our region, SWORD reporting and visiting the Health and Safety Executive laboratory), home ventilation (clinics, home visits, visiting neurorehabilitation centres), sleep medicine (clinics and sleep reporting), NHS management (attending clinical commissioning, trust board and directorate meetings), cystic fibrosis (clinics and inpatient work on the regional cystic fibrosis unit), cardiothoracic surgery (attending regional theatre lists) and acute medicine (taking on senior decision making on winter pressure wards and medical boarder wards).

Feedback to date has been universally positive and included themes on utility to complete PYA targets, focus training on an area of subspecialist interest in preparation for consultant post and develop a skill set that differentiates the trainee from their peers. Two trainees who have completed the trainee selected component have discussed their experiences from this period of time during consultant interviews, with excellent feedback from the interview panels with regard to how the trainee selected component captured the interest of the panel and aided the trainee to stand out.

To summarise, this innovative component facilitates bespoke training for the trainee, allowing them to focus training on subspecialist areas of interest and seek educational opportunities outside of the standard training programme. To our knowledge, it is the first of its kind in respiratory medicine and has received unanimously positive feedback from trainees who have had the opportunity to complete this novel training opportunity.

1-27

MENTAL HEALTH ACT TRIBUNALS: INTERPROFESSIONAL SIMULATION IN PSYCHIATRY

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INTRODUCTION:

Mental Health Act tribunals are independent bodies which have legal authority to make decisions about detentions under the Mental Health Act (MHA). The process is an important component of the checks and balances in our medicolegal system, which helps to strike a balance between protecting patients' rights whilst also acting in their best interests when they are suffering from a mental disorder. Psychiatrists, mental health nurses, and care co-ordinators are all expected to present evidence and undergo questioning during a tribunal.

Typically, clinicians have limited opportunities to observe tribunals in real life. There are a number of learning needs relating to MHA tribunals including presenting an argument in a formal legal setting, interprofessional working, and maintaining compassionate patient-centred care.

METHODS:

An interprofessional simulation training course for mental health professionals was designed in collaboration with a range of stakeholders. We used a blended learning approach, providing participants with pre-course materials including clinical documentation and legal reports about the simulated patient.

To maximise the fidelity of the simulation, we used a real solicitor to represent the patient, and real hospital managers and medical members on the tribunal panel. Participants worked in multidisciplinary teams, following a simulated patient through three serial simulations:

- Assessing the patient prior to the tribunal
- The Mental Health Act tribunal
- Post-tribunal meeting with the patient

Each scenario was followed by a structured debrief and reflection. Pre and post course questionnaires were used to evaluate the educational impact of the training.

CONCLUSIONS/IMPLICATIONS:

This training was able to meet previously unmet learning needs relating to MHA tribunals. The use of blended learning and serial simulations made it possible to design a simulation involving a complex and nuanced clinical presentation, thus ensuring a high level of fidelity. An interprofessional approach helped to facilitate learning.

1-28

CURRICULUM MAPPING: A NEW TEACHING PROGRAMME FOR GENERAL INTERNAL MEDICINE TRAINEES

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INTRODUCTION:

Health Education England Thames Valley (HEETV) has approximately 150 general internal medicine (GIM) trainees. The 2018 GMC national training survey (NTS) revealed low overall satisfaction with GIM teaching (59%), with teaching curriculum coverage a red outlier at 56% satisfaction. HEE-TV's Trainee Physicians Committee (TPC) surveyed trainees to examine the reasons for this; in the light of the responses a new teaching programme was developed.

METHODS:

An anonymised email survey was sent to trainees via the TPC mailing list, with 19 responses across a range of specialist training grades. 42% of trainees reported being unable to attend the required 70% of teaching sessions (or pro rata equivalent). Only 26% of trainees agreed or strongly agreed that the teaching met the requirement of the GIM curriculum. Logistical issues raised were difficulties with half-day sessions due to problems with travel and parking, sessions were often cancelled with little notice, and teaching was not clearly mapped to the GIM syllabus. We redesigned the programme with 9 full-day sessions a year, excluding sessions in the summer and January when trainees reported attendance was most challenging. We split teaching days into specialty-aligned themes with each day's programme mapped to specific curriculum areas. These sessions build into a 2½-year rolling programme that covers all GIM curriculum areas, which, over a typical 5-year training programme, provides trainees the opportunity to attend each 'theme' twice. To ensure trainee-focused teaching, we asked training programme directors to nominate specialty trainees to organise each session with consultant supervision, providing opportunities for trainees to develop organisational and educational skills. To improve session feedback we introduced electronic feedback via a smartphone app. The first teaching day received excellent feedback: 100% of trainees agreed or strongly agreed that "Today's teaching day will help me achieve my competencies in General Internal Medicine."

CONCLUSION:

We introduced a new curriculum-mapped, trainee-led GIM teaching programme in HEE-TV. This model might be applicable to other regions. We introduced local changes to maximise trainee attendance. The first teaching day showed considerable improvement in trainee perception for curriculum coverage. We will continue to evaluate the programme using the GMC NTS survey and with repeat local surveys.

1-29

'FIRST DO NO HARM' – OVERDIAGNOSIS AND DEVELOPING THE 'EXPERT GENERALIST'

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BACKGROUND:

Recognising and attempting to combat the dangers of 'Too Much Medicine' (1) is not new: Balint wrote in 1957 that "there is danger, not only in missing a physical sign, but also in finding one"(2). Overdiagnosis presents significant risks to our patients, both the physical consequences of unnecessary investigation and treatment, and the emotional and psychological burden that can follow. Wider society also suffers as limited resources are consumed ineffectually and diverted away from more appropriate interventions.

From our perspective as GP training programme directors, overdiagnosis has had little or no impact upon medical education at undergraduate or Foundation level. The exhaustive investigative approach typical to hospital-based medicine is of limited help to our trainees when faced with their first primary care consultations; 'the art of doing nothing' (2), or even simply less, feels alien. Balancing the potential benefits and harms of action and inaction is a challenging skill to develop.

SUMMARY OF WORK:

We are introducing concepts of overdiagnosis to our training programme in various formats: 'Evidence Based Learning' sessions, 'Clinical Pearl' presentations and small group tutorials delivered by both trainees and programme directors. Overmedicalisation also arises spontaneously as a topic for discussion in small group work, triggered by cases brought by trainees.

OUTCOMES:

There are significant forces at work, including unease with uncertainty, patient anxiety, societal expectations, external performance targets, 'awareness' campaigns and fear of litigation. We believe that a better appreciation of overdiagnosis will help rebalance these forces and aid our trainees' transition to 'expert generalists'. This poster will present an overview of how we have refocused the release curriculum to include consideration of overdiagnosis.

CONCLUSION:

We are interested in the views and experiences of other medical educators and we hope this poster will prompt wider debate and discussion.

1-30

CREATING AN IMPROVED AND SUSTAINABLE REGIONAL TEACHING PROGRAMME TO MEET THE REQUIREMENTS OF THE NEW RCPCH PROGRESS LEVEL 2 CURRICULUM

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AIM:

To develop a two-year rolling regional teaching programme, delivered monthly for level 2 paediatric trainees. It must address the issues identified with the previous programme and be mapped to the newly implemented RCPCH level 2 Progress curriculum.

METHODS:

We audited coverage of the RCPCH curriculum by speciality between January 2016 and December 2017 (24 monthly sessions). We analysed each month's teaching programme and assessed coverage against the previous RCPCH Level 2 curriculum. We also recorded the amount of teaching delivered in hours and minutes. We set a standard that a single day of teaching should contain 6 hours and 30 minutes of material, with an additional 1 hour and 30 minutes allocated for breaks. Written feedback from the trainees was also considered.

RESULTS:

Teaching was delivered to level 2 trainees once a month for 24 consecutive months. Almost all of the level 2 specialty conditions (14/15, 93%) were represented. Only 33% (97/292) of the listed level 2 curriculum sub-items were covered. 59% of total available teaching time over the 24 months was filled. The average total teaching time per day was 3 hours and 50 minutes (range 2 hours to 6 hours). There were 63 hours and 55 minutes of potential teaching time lost over the 24 months (range 30 minutes to 4 hours and 15 minutes per teaching day).

CONCLUSION:

Our results demonstrated that the then level 2 curriculum was not fully covered by the existing regional teaching programme. A significant amount of potential teaching time was lost due to cancellations or failures to fill available slots. A new two-year rolling programme was created to address these issues. The new RCPCH Progress curriculum was mapped into 22 sub-specialty themed days. The new programme was presented to educational leads and teaching dates were assigned in advance for each sub-specialty theme. A named lead was given the responsibility for organising and delivering each day, whilst liaising with the trainee-led education committee. We aim to re-audit coverage of the new curriculum upon completion of the first two-year cycle.

1-31

QUALITY IMPROVEMENT PROJECT: THE TEACHING OF FOUNDATION YEAR 1 CORE PROCEDURES

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INTRODUCTION:

Health Education England requires Foundation Year 1 (FY1) doctors to be proficient in performing a set of core procedures. The audit was designed to establish whether FY1 doctors at Guy's and St. Thomas' NHS Trust received formal teaching on core procedures, whether an aseptic non-touch technique was taught, and to identify core procedures requiring further teaching.

METHODS:

A questionnaire was designed and distributed to FY1 doctors at Guy's and St. Thomas' NHS Trust. The questionnaire had four sections: 1) whether the aseptic non-touch technique had been taught for each core procedure; 2) whether formal teaching had been delivered for each core procedure; 3) whether FY1 doctors would like simulation teaching for each core procedure; 4) the preferred method of delivery of further teaching.

RESULTS:

A total of 39 FY1 doctors completed to the questionnaire. 60% (n=22) reported that they had received teaching on the aseptic non-touch technique for core procedures, 35% (n=13) had received some teaching on this. 92% (n=36) and 85% (n=33) had received formal teaching in intravenous cannulation and venepuncture respectively, compared to 21% (n=8) and 23% (n=9) for female and male urinary catheterisation respectively. Simple airway care (46%, n=18) and female urinary catheterisation (28%, n=11) were the most commonly reported procedures that FY1 doctors would like simulation teaching in. The preferred method of delivery of the teaching was at the FY1 induction (46%, n=17).

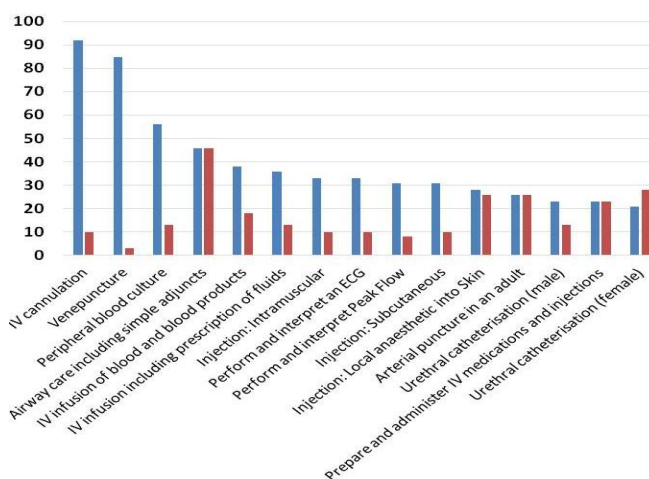
INTERVENTION:

The results were discussed at the Foundation Faculty meeting, attended by Foundation Doctors and Service leads. It was agreed that the FY1 Induction would be revised to incorporate further teaching on core procedures. A list of theatre lists that require urinary catheters has been made and will be distributed to the next cohort of FY1 doctors, providing an opportunity to practise urinary catheterisation with adequate supervision.

CONCLUSION:

This audit has identified areas of success and for improvement in the teaching of the core procedures. The FY1 Induction will be revised and FY1 doctors will have the opportunity to sign up to practice urinary catheterisation in an appropriate clinical environment. A re-audit will be performed after implementation of these interventions.

Figure: Comparing the percentage of respondents who received formal teaching for each core procedure (blue) to the percentage who would like formal simulation training for each core procedure (red)



1-32

THE WINTERS OF OUR TRAINEES DISCONTENT

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BACKGROUND:

Trainees in orthopaedic surgery need to undertake specific numbers of supervised surgical procedures to gain experience and to satisfy annual ARCP review panels. Winter bed pressures can lead to cancellation of scheduled elective operations and reduce the numbers in trainees' logbooks. In 2018 the Royal College of Surgeons recommended that trainees might require additional training time if their logbook numbers were low.

AIM:

To investigate the effect of winter pressures on orthopaedic trainees' logbooks to assist in mitigating future years problems.

METHODS:

For the three consecutive years 2017-2019 we surveyed ST3-ST8 orthopaedic trainees in 11 trusts in the Kent Surrey Sussex deanery. The same questionnaire was used each year to assess disruption of surgical training caused by winter bed pressures during the same 30 day period each year. We assessed cancelled arthroplasty cases and lost trauma experience. The response rate was 176/189 (93%).

RESULTS:

On average there were 250 cancelled operations each year that were relevant for training. The expected total number of training operations for these trusts during the study period was estimated at 2000 cases.

Elective procedures: Of the 11 trusts surveyed 6 had ring-fenced elective beds and stand-alone elective centres. These trusts cancelled 56% fewer cases than trusts with shared trauma and elective wards.

Trauma procedures: Of 210 trauma cases 81 (39%) were reassigned to empty elective morning lists that the trainee could not attend.

1-33

DOCTORS INDUCTION: ISN'T IT TIME TO MAKE IT RELEVANT AND INTERACTIVE?

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BACKGROUND:

Junior doctors induction at Kingston Hospital had received critical feedback and was red-flagged by Core medical trainees on the 2018 GMC National Trainee Survey. Traditionally induction takes place through lectures, but we know this is not the most effective method of teaching. We wanted to increase trainee engagement and satisfaction, strengthen the clinical value of induction and improve patient safety. We piloted a carousel of case-based clinical stations at the main August 2018 induction, and used feedback to further improve subsequent inductions later in the year.

METHODS:

Education faculty, Chief of Medicine, and Chief Registrar agreed station themes based on Serious Incident trends and trainee and clinician feedback (aiming to improve patient safety and trainee confidence). Themes included sepsis, delirium, major haemorrhage, CPR and handover. Stations were facilitated by experienced clinicians and educators which also gave trainees the opportunity to meet key faculty members at the start of their rotation. Small groups rotated through interactive 15 minute stations (including short sepsis simulation), separated by walks between stations which helped maintain attention. PGMC administrative staff enabled smooth running of the carousel.

INITIAL RESULTS:

Trainees completed written feedback forms immediately after completing the carousel. All 5 stations received $\geq 4.5/5.0$ for satisfaction. 100% of doctors reported they felt the stations were a clinically valuable addition to induction. We received a large volume of positive qualitative feedback from trainees and induction faculty.

SUBSEQUENT IMPROVEMENTS AND FURTHER RESULTS:

Initial feedback informed adaptations of content and complexity of stations at subsequent inductions. BLS and the sepsis simulation have been prioritised to remain in all inductions even if only a small intake of trainees.

Quantitative feedback from the October 2018 induction showed an improved average score of $\geq 4.75/5.0$. Trainee qualitative feedback remained uniformly very positive. Trainees previously employed by Kingston hospital commented that stations had improved their induction experience. Faculty feedback remained positive, with faculty enthusiastically committing to teach on subsequent inductions.

KEY MESSAGES:

Trainees value a more interactive and clinical hospital induction. The pilot in August 2018 was very successful, confirmed the need to radically overhaul our induction programme and ensured the stations are now permanent feature of our induction programmes. With the support of HESL we are sharing learning with other South London trusts to encourage similar programmes. We are also adapting the concept for supported return-to-training and differential attainment training programmes at Kingston.

1-34

USING PHOTOGRAPHY TO FACILITATE REFLECTIVE LEARNING FOR GP TRAINEES

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BACKGROUND:

The role of the arts in medicine has been the subject of research and there is recognition of the benefit of engaging with the arts and humanities on patient wellbeing and recovery from illness. This acknowledgment has been extended to doctors in training, with the arts finding a role at both undergraduate and postgraduate levels. This study looks at how photography can be used in teaching to explore 'being a GP registrar.'

SUMMARY OF WORK:

The GP registrars were in the last few months of their training (GPST3) prior to transitioning to independent practice. They were asked to answer the question "what does being a GP registrar mean to you?" by taking a photograph. The trainees shared the images in a facilitated small group teaching session (4 groups in total) and follow up feedback was gathered to evaluate learning. The data collection comprised:

- 1) A focus group with one small group;
- 2) Interviews with the programme directors running the groups
- 3) The photographs taken by the trainees.

SUMMARY OF RESULTS:

Detailed thematic analysis was undertaken: through the creation of codes the commonalities, differences and relationships within and between the data sets were examined, linking the images and transcripts. Three striking themes in the data were identified. These reflected their experience of being trainees and were: the core values of being a GP, resilience and wellbeing, and seeing their small group peers in new, and sometimes unexpected, lights.

DISCUSSION AND CONCLUSIONS:

The teaching session was positively received by GPST3s and programme directors alike. The focus group and interviews allowed me to explore the impact of the opportunity to be creative and the learning they gained from it, as well as to evaluate the session. The creative element engaged the trainees and seemed to deepen the reflective discussions that followed. This educational case study shows how the use of the arts, and photography in particular, in medical education can support the professional development of GP trainees and allow them to express their perspective on training.

1-35

DEVELOPING AN ENQUIRY-BASED LEARNING PROGRAMME: CONSTRUCTING A SPIRAL CURRICULUM

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BACKGROUND:

General Practice (GP) trainees in their first two years of postgraduate specialty training attend educational sessions once a month focused on their learning needs as a future GP. For seven years the Southampton GP Education Scheme has used an 'enquiry-based learning' (EBL) approach embedded in a 'spiral curriculum' structure (Bruner, 1960) to provide a framework for learning.

This paper presents the outcomes of a longitudinal development and evaluation of this curriculum. It examines how this approach meets the learning needs of trainees across a range of training contexts and at different stages of learning, as well as remaining dynamic to syllabus change.

SUMMARY OF WORK:

An approach to curriculum development was adopted based upon andragogic learning principles, set within a spiral curriculum. The sessions are created and resourced by a case writer. Each is mapped to the Royal College of General Practitioners GP training curriculum, identifying the key topics of learning as well as vertical themes (e.g. consultation skills) which run throughout packs allowing them to be revisited, as advocated by Bruner.

In practice learners prepare for a session using a workbook. In the session they analyse and discuss their understanding of the case material, they can research unknown aspects using given resources or seek out alternative ones, they develop their thinking using role play scenarios. After the session learning is consolidated using a follow up workbook.

SUMMARY OF RESULTS:

Over 7 years the trainees' perceptions of the curriculum has been gathered after each session using a questionnaire. In addition, the educational perspectives of case writers and facilitators have been explored.

The sessions are well received by the trainees. Themes from trainee comments highlighted the sessions' relevance to learning for general practice, peer support and their interactive nature. In addition to the clinical topic of each session, trainees recognised curriculum themes embedded vertically over the two years.

DISCUSSION /CONCLUSIONS:

EBL provides a valuable, integrated framework to help GP trainees navigate their learning journey through hospital-based education and GP practice training. Understanding the principles of curriculum development is key to designing a robust programme of education.

1-36

DESIGNING A NEW UK LONGITUDINAL INTEGRATED CLERKSHIP TO PREPARE STUDENTS FOR CLINICAL PRACTICE: INTRODUCING F-ZERO

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BACKGROUND:

UK medical students feel underprepared for clinical practice, particularly in prescribing, managing uncertainty and the development of a professional identity (1). Longitudinal Integrated Clerkships (LIC) are an international model of education which offer a possible solution to this challenge. Centred around continuity, LICs offer students an authentic role in the delivery of care to patients and a meaningful relationship with supervisors, peers and patients (2).

The current LIC literature is predominantly based on small cohorts of students or hybrid models of community based LICs (3). There remains a gap in the UK literature to understand how a fully integrated LIC across primary and secondary care can be developed, which can be rolled out to a whole cohort. Having run a successful hybrid LIC, we have redesigned the final year of our MBBS Curriculum using an LIC model, entitled "F-Zero", which we aim to roll out over the coming years.

COURSE OUTLINE:

30 self-selected students have been randomly recruited for F-Zero, which will replace traditional block rotations. The F-Zero course will be based at a district general hospital and surrounding GP surgeries from July 2019. Students will be allocated 3 supervisors: a general medical and surgical consultant and a GP. Students will spend a day each week in the following 3 settings: GP, a general medical ward and a general surgical ward. In GP, students will run supervised student-led clinics, delivering authentic patient care and have the ability to follow-up their patients. In hospital, students will take charge of a bay of patients on the ward, managing the patients as a junior doctor and learning their clinical knowledge through patient exposure.

Threaded through, will be 3 immersion weeks in A&E, acute medicine and acute surgery, where students will be integrated into the clinical team assessing acute patients and following them through their clinical journey. Students will have the unique role of bridging primary and secondary care and may have the opportunity to follow patients from primary to secondary care and vice versa.

RESEARCH AND EVALUATION:

Evaluation of the course includes analysis of the students' assessment scores and focus groups to understand the students' experiences and learning. We will explore the development of a professional identity through validated inventories and interviews. Finally, we will use simulation as a tool to assess preparedness for clinical practice.

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2. Hirsh DA et al. "Continuity" as an Organizing Principle for Clinical Education Reform. *N Engl J Med* [Internet]. 2007;356(8):858–66.
3. Worley P et al. A typology of longitudinal integrated clerkships. *Med Educ*. 2016;50(9):922–32.

1-37

USING ROTA DESIGN TO ENHANCE TRAINING OPPORTUNITIES IN SECONDARY LEVEL MEDICAL SERVICES

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INTRODUCTION:

The provision of postgraduate medical training in the UK exists in tension to the service delivery requirement of the NHS to its clientele. The most recent GMC survey found that two-thirds of trainers and more than three-quarters of trainees identified that rota design helped optimise education and development.

In a secondary level hospital, a redesign of the on-call rota was conceived to utilise SHO-level trainees to cross-cover Ear, Nose and Throat surgery (ENT) and Obstetrics and Gynaecology (O&G) overnight. This survey was to determine whether trainees felt it was safe, well-supported and satisfactory for education and training.

METHODS:

Trainees who had participated in the rota for at least three months were invited to complete an online anonymous survey. Questions about preparedness, training opportunities, senior support, patient safety and general satisfaction were asked using a summative scale (out of 5 from strongly disagree to strongly agree). Ideas regarding improving educational opportunities, and general comments were also obtained. Following descriptive analysis, mean satisfaction score (MSS) and odds ratios were calculated.

RESULTS:

Of the 25 participants, 18 responded (response rate 72%), of which all were full time trainees. Trainees had day job placements in ENT (33%, n=6) and O&G (67%, n= 12), with 10 training posts from general practice (GP), 6 foundation year two (F2) and 2 O&G. Median postgraduate experience was 3 years (IQR 2-5).

Satisfaction with learning opportunities, enhanced experience and rota design were positive (MSS 3.72, 3.88 and 3.56), however those placed in O&G had more concern about supervision (p=0.005) and lack of experience when compared to those placed in ENT (p=0.021).

Trainees in O&G placements and with less than 3 years' experience found cross-cover made it harder to settle into their placement and were less confident in some ENT emergencies. All trainees were equally confident in treating O&G emergencies. The cross-cover rota was rated good for training by 75% of suitable trainees. Future interventions to further potentiate training opportunities were joint protected teaching time (supported by 83%), ENT simulation (83%), and study leave to shadow the opposite speciality (44%).

CONCLUSION:

In a climate where both trainers and trainees report rota gaps and understaffing are common reasons for failure to obtain training opportunities, understanding how to balance training opportunities with the delivery of safe and effective patient care is essential. Novel cross-cover opportunities may provide a safe solution with high satisfaction in training, provided ongoing educational opportunities and appropriate senior support is in place.

1-38

CREATION OF A NEW SIMULATION-BASED UNDERGRADUATE TEACHING SESSION – IMPROVING PREPARATION AND TRANSITION TO FOUNDATION DOCTOR

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INTRODUCTION:

Research into newly-qualified doctors consistently identifies a lack of confidence and competence in the recognition and management of an acutely unwell patient. This can be improved by increasing undergraduate clinical experience and opportunities to 'act up' as a foundation doctor.

Our local medical school's paediatrics placement uses powerpoint tutorial-based teaching, which educational research shows can lead to superficial learning and student disengagement. Adults learn best when they are active and engaged in learner-centred activities. Simulation allows students to 'practice' medicine and develop their clinical knowledge, skills and attitudes, without risk to real patients.

I have created a unique and innovative new simulation-based acute paediatrics teaching session, with the student assuming the role of foundation doctor. It incorporates 'foundation doctor-type' tasks alongside the patient management, such as communication skills, prescribing, handover, documentation etc.

METHOD:

A pre and post session student questionnaire was designed to assess self-reported confidence with the learning outcomes. Comparison of differences in these scores would provide insight of the perceived educational impact of the session. The questionnaire also asked student views on the quality of the session and allowed open responses.

RESULTS:

This teaching session has run four times so far, totalling 17 participants. The group's mean self-reported confidence increased significantly after the session (32-53%) for all learning outcomes. They found it to be an educationally effective and enjoyable learning experience, scoring 9-9.8 /10 in all areas, including 'Usefulness' and 'Recommend to a colleague.'

CONCLUSION:

My results indicate that simulation can be an effective tool for increasing student confidence with acutely unwell patients and help preparation for transition to foundation doctor. The session can easily be adapted for other specialties and disciplines.

My session has been incorporated into the department's regular medical student timetable and added to my Trust's new foundation doctors' induction programme from August 2019.

1-39

DE BENE ESSE: PILOTING A WELLBEING SESSION FOR JUNIOR DOCTORS

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INTRODUCTION:

A survey of junior doctors conducted by the British Medical Association revealed 80% are at risk of burnout, 1 in 4 suffer with a mental health issue and the suicide rate is far higher than an age matched population. With aims to highlight the importance of personal wellbeing, the resources available, and increasing confidence in discussing problems and supporting colleagues, a compulsory afternoon session was developed for foundation year 2 doctors in a North London Trust.

METHODS:

A short presentation covering current data and the introduction of the 'coping reserve model' (Dunn *et al.*, 2008) contextualised the session. This was followed by a hypothetical case study; taking a foundation year 2 doctor through a 4-month period involving multiple stressors. This provided structure for discussion and resource dissemination. The pilot involved 6 sessions, with feedback obtained via Likert scales (1-10, with 1 representing least and 10 representing greatest effect/impact). Statistical analysis was performed using R version 3.4.1.

RESULTS:

86 individuals attended the 6 sessions, of which 59.3% (n=51) were female and 40.7% (n=35) male. Questionnaires were answered by 94.2% (n=81) of the attendees and 76 responses were included in the data analysis following exclusion of incomplete ones. Pre- and post- comparison analysis demonstrated statistically significant increases across all of the aims for the sessions, for the entire sample ($p < 0.05$). Individuals less confident in discussing personal issues affecting them at work showed a slight decrease in valuing the importance of wellbeing on their own health, while those more confident showed an increase (p -value = 0.0091). Similarly, those less confident individuals exhibited a smaller increase in mean values for confidence in supporting a struggling colleague than those more confident in discussing personal issues at work (p value = 0.0016).

CONCLUSION:

All of the attendees reported improved outcomes following completion of the sessions. Those with a higher extent of burnout and more confidence in discussing personal issues affecting them at work gained more benefit from the sessions. We advocate the design and evaluation of further sessions, based on the robust NHS staff and learner's wellbeing commission report, for this teaching to become a compulsory part of postgraduate medical education and for the provision of bespoke sessions for those suffering from moderate-high levels of burnout.

1-40

A COMMUNITY BASED HEALTH INEQUALITIES CLINICAL MODULE IN SHEFFIELD MEDICAL SCHOOL UNDERGRADUATE CURRICULUM

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INTRODUCTION:

The 'Deep End General Practice' movement is a growing international network of General Practitioners (GPs) practising communities in and with the most deprived communities in the UK (and beyond). The movement's aim is to help tackle Health Inequities (HI) and the inverse care law. Medical undergraduate curricula include public health learning but students rarely get an opportunity to integrate this learning with an understanding of how (and where) they practice their medicine to provide potential to help mitigate such health inequities.

METHODS:

This new DEEP END CLINICAL SSC (Student Select Component) placement provided students with a unique opportunity to see how GPs and the multidisciplinary teams in the community practice to address health inequality in their local area. The students were given an immersive 6-week experience in one practice and geographical area. Students had the opportunity to collaborate with third sector organisations working with disadvantaged patient groups linked to their practice and lead on a project to improve services for patients. There were weekly small group seminars focusing on an extended debriefing for the students to help share and consolidate learning, provide support for the student-led projects and a space for peer to peer microteaching.

CONCLUSION/IMPLICATIONS:

Four students opted for the placements. Each student was placed in a 'DEEP END' Sheffield practice (serving a population in the top quintile of deprivation scores) each with different practice demographics and needs. During their time students met a wide range of patients from unique and complex backgrounds, each with different health needs.

Project undertaken by students included conducting a complete PDSA (plan do study act) cycle on immunising migrant families who traditionally have low uptake of vaccines and evaluating a homeless drop general practice service and implementing changes accordingly.

Evaluation of the module showed how the opportunity to understand how the community health sector and third sector organisations collaborated to address the wider determinants of health transformed their understanding of health and their own future practice. Learning about health inequalities in the context of general practice helped the students realise the potential of primary care. Students described new enthusiasm about pursuing their careers as doctors, about a career in general practice and their own agency and purpose in tackling health inequities in their own careers.

There are few clinical modules that integrated an understanding of the wider determinants of health with clinical practice. This module will now be offered as a permanent feature in the Sheffield Medical School undergraduate curriculum.

1-41

THE 'GRAND ROUND': LIVING UP TO ITS NAME

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INTRODUCTION:

Postgraduate Education Fellows (PGEF) have multiple roles, including the identification and development of educational opportunities for medical staff. At an acute London Trust we describe the process of successfully revitalizing interest in a Grand Round programme.

METHODS:

PGEFs retrospectively reviewed records of attendance at Grand Round over a 6 month period between June to December 2018. Attendance was used as a surrogate marker of the Grand Round success. On average, the weekly attendance during this time period was 10 per session.

Key areas for improvement were identified including; breadth of subject content, advertising the event and feedback on presentations given. We also considered the reciprocal impact on speaker engagement if attendance was poor.

The PGEFs, who are committed to the provision of high quality education, employed a multifaceted approach to address these issues. The programme content was reviewed and restructured to ensure a wide range of specialties were represented. An up to date medical staffing email list was generated and an eye catching advertising poster was designed and distributed on a set weekly schedule. Speakers were encouraged to create engaging titles to enhance interest. Short feedback forms combining likert scale and qualitative responses were devised to enable continuous improvements to be made. Finally, attendance was incentivized by the provision of lunch.

CONCLUSION/IMPLICATIONS:

Following the strategies described above, the average attendance in the 6 month period between January to June 2019 improved fourfold to over 40 per session.

Themes from feedback identified that attendees were motivated by high quality expert teaching, the opportunity to interact with colleagues from multiple specialties in an informal setting over lunch and provision of speaker feedback.

Through close interaction with trainers and trainees across multiple specialties, PGEFs are uniquely placed to identify opportunities and maximize diversity and sustainability of educational programmes, as demonstrated through the revitalization of our Grand Round.

1-42

TEACHING REFLECTION POST BAWA-GARBA: DESIGNING AND PLANNING LEARNING TO SUPPORT DOCTORS IN TRAINING TO ENGAGE IN MEANINGFUL REFLECTION

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INTRODUCTION:

Following the Bawa-Garba case significant concern existed among doctors in training with regards reflective practice. We designed a session to attempt to recover the status of reflection and reassure doctors in training that done properly reflection is safe and fundamental to learning not merely an ARCP requirement.

METHODS:

A session about reflective practice was designed for Doctors in training and delivered as part of the Health Education England – North East training course. The course was designed in four stages; **WHAT IS REFLECTION?** This was explored by way of the legal definition as well as what it means to the individual. **WHY REFLECT?** This section focused on challenging the perception on the usefulness of reflection. The barriers to reflection were considered and the impact of Bawa-Garba was openly discussed and scrutinised. **HOW SHOULD I REFLECT?** This section reviewed the commonalities of accepted reflective models and derived A system focusing on description, evaluation, analysis, learning and plan as a standardised approach to use within the session. **WHEN SHOULD I REFLECT?** This final section explored the ideal timing for reflection as well as shared reflection as part of a group debrief.

EVALUATION:

Doctors attending the course felt that; they were better at writing reflections as a result and moreover felt they could enjoy writing them. In those attending the course there was reduction in the feeling that your reflections could be used against you and a reduction in those who felt reflection was purely a tick-box exercise. Doctors attending the course remained unchanged in feelings that reflection was only about mistakes and that they would only ever reflect for the purpose of ARCP although there was evidence that there was movement in thought about the later in the pre-post evaluations.

Attendees were encouraged to explore their thoughts about the purpose and benefits of reflection in a group interactive word cloud session. Notably 'learning' was established by the group as both the central theme of reflection and its' primary benefit. Attendees also agreed that descriptive writing made reflection poor reinforcing the later structured approach to writing.

CONCLUSION:

Teaching reflection with an honest and open approach to the Bawa-Garba case can allay concerns doctors in training may have about implication of this case. Encouraging doctors in training to think about purpose and benefits of reflection in the wider sense can help them view it in terms of patient safety instead of an ARCP requirement. Have a structure and using reflection to draw out individual and shared learning as well as an exercise to challenge values, belief, assumptions was well received by the group.

1-43

IMPROVING THE QUALITY AND PARTICIPATION FOR KENT, SURREY, SUSSEX ANAESTHETICS HIGHER TRAINING DAYS (ST5-7S)

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BACKGROUND:

In Anaesthetics, the Final FRCA is normally completed in ST3/4. KSS deanery has not offered consistent teaching for *post-exam* trainees for years and previous attempts for cohesive programme have failed. By surveying trainee opinion and analysing successes of similar projects in other deaneries, we invigorated a new programme of teaching. We specifically aimed to cover higher domains in "CCT in Anaesthetics – Higher/Advanced Level Anaesthesia" and created opportunities for exposure to relevant topics/skills that we are assumed to have as consultants yet offered minimal time in our training developing.

PROBLEM	OUR SOLUTION
Poor advertising	Monthly email update with all links needed
Difficult/complex sign ups	Simple sign ups with Eventbrite/Synapse
Far to travel / big deanery	Rotate around all hospitals, so distance varying
Long journey times	HTD to run 10am-4pm – offers 2 hours for journey time
Subspeciality topics not relevant for all	Topics covered relevant for all trainees/bosses
Exam topics only	Higher domain topics
Same day of the week (difficult for LTFT)	Rotate through days of week to be fair to all

IMPLEMENTATION:

Our monthly email updates explained the project, contained sign up and feedback links. The HTD committee's aim was to facilitate a local senior trainee, guided by a college tutor, to host a HTD. They would be rewarded by having a Management Activity for ARCP, plus anyone presenting gets a straight forward Regional Presentation. The aim is to create a 2 year rolling rota that is easily repeated and the project will sustain itself with much less effort that it has taken to roll out.

Month	Venue	Topic
March 18	Brighton	Anaesthesia for adults with congenital heart defects
April	Eastbourne	Anaesthesia for adults lacking capacity (legal and practical tips)
May	Guildford	Regional & US/airway day
June	Canterbury	Management and Leadership for CCT
July	Worthing	Human factors and communication
Sept	H. Heath	Research in anaesthesia (the what's what and how to's)
Nov	Guildford	Cancer and anaesthesia (including preoptimization)
Dec	East Grinstead	Careers development for CCT
Feb 19	Chichester	Protocolisation in anaesthetic practise (Bariatrics and joints)
Mar	East Surrey	Trauma and Major incidents (including planning)
April	H.Heath	Advanced airway skills day
May	Brighton	Mediation and Conflict Resolution (external training from MMF)
June	Dartford	Incident investigation, Legalities, Ethics & Financial aspects

RESULTS:

We are looking forward to the GMC survey results this year. ALL the days have all received over 90% average satisfaction from attendees (approx. 20 trainees per training day) for quality, content, presentations and organisation.

FUTURE:

The HTD committee will work to ensure this programme success continues and implement a 2 year rolling schedule to ensure all KSS trainees have a chance to experience these topics.

1-44

IMPROVING SATISFACTION WITH THE FOUNDATION TEACHING PROGRAMME – A TRAINEE LED QUALITY IMPROVEMENT PROJECT

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INTRODUCTION: Doctors entering the foundation programme continue their medical education through supervised workplace learning and protected formal teaching. Protected teaching includes lectures, seminars and simulation sessions and is intended to enhance foundation doctors' knowledge in both clinical and non-clinical areas. Providing an effective teaching programme can prove challenging and in 2018 9.34% of trainees rated teaching quality as very poor/poor in the GMC training survey ¹. There are multiple factors including content, delivery and timing affecting how teaching supports trainees in both their day to day practice and longer term careers. Here we report on a three year trainee led quality improvement project with the primary aim of increasing satisfaction levels amongst foundation doctors with the teaching program.

METHODS: Between 2017 and 2019 we conducted surveys of foundation trainees at UHSM. Quantitative and qualitative data was collected to assess the teaching programme. The results were used to guide implementation of changes addressing concerns raised by trainees.

Changes made included moving clinical sessions to earlier in the programme, introducing peer teaching and moving FY1 teaching to a morning time slot. The impact of these alterations was evaluated in subsequent quality improvement cycles.

RESULTS: 156 surveys were completed by foundation doctors. Satisfaction with the teaching quality is summarised in table one and shows improvement over the three years.

In 2017 25.8% respondents felt teaching was pitched at an appropriate level compared to 75.8% in 2019. Case based teaching and quiz format were rated most useful (average score of 3.61 and 3.20 on a 4 point scale) compared to group teaching (average 2.69). Morning teaching was viewed negatively, with 94% favouring a whole day of teaching on alternate weeks or afternoon teaching over a morning slot.

Teaching Quality	FY1			FY2		
	2017	2018	2019	2017	2018	2019
n	35	23	20	30	23	22
Very Poor	0%	0%	0%	20%	0%	0%
Poor	60%	17.4%	10%	53.3%	0%	0%
Adequate	31.4%	60.9%	30%	20%	0%	36%
Good	5.7%	17.4%	50%	6.7%	56.5%	50%
Very Good	0%	0%	10%	0%	17.4%	0%
Don't know	2.9%	4.4%	0%	0%	26%	13.7%

Table 1

DISCUSSION: In three years of running this project satisfaction with teaching appears to have substantially increased. Newly qualified doctors highly regarded teaching around common clinical problems likely to present when on call; responding less well to highly theoretical or specialised content. Group sessions were the least favoured format; qualitative data suggested a lack of facilitators limited the usefulness of small group work. Disruptions to ward work due to half day teaching, and missing teaching because of lack of ward cover contributed to dissatisfaction levels. In view of this, full day alternate week teaching is being implemented for the next cohort of trainees. This will hopefully continue to drive increased quality of training for foundation doctors.

REFERENCES:

1. GMC National Training Surveys 2018: Initial Findings Report

1-45

A NEAR-PEER TEACHING COURSE ON DISCHARGE COORDINATION BASED ON A QUALITY IMPROVEMENT PROJECT: A NOVEL WAY OF TRAINING NEWLY QUALIFIED DOCTORS

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OBJECTIVES:

To evaluate a novel, near-peer themed teaching course on discharge coordination based on a quality improvement project giving a structured approach to patient discharge planning.

METHODS:

Twenty-four post-finals medical students took part in a teaching course delivered by foundation doctors with experience in discharge planning. A 10-point Likert scale was used with pre and post-questionnaires to measure student evaluation of the course and its impact on their knowledge and confidence in discharge planning.

RESULTS:

Prior to the course, previous teaching and confidence in discharge planning was rated poorly with a mean Likert score of 2.79 (+/- 1.64). After the course there were statistically significant increases in knowledge and confidence among the student cohort. The course was rated highly as a useful part of a mentoring programme with 22 students (n = 92%) agreeing that the course had a role in future training.

CONCLUSION:

Here via a novel near-peer teaching course based on a quality improvement project, we introduced the use of a previously validated checklist to teach discharge planning to medical students approaching the end of their university education. By using the quality improvement framework, we were able to give structure to the near-peer teaching and bridge the gap between proven clinical practice and medical education and offload work from already time pressured senior clinicians. Based on student feedback pre and post the course we were able to show both the perceived need for this course in the medical student population as well as the value of this course in improving the students' confidence, awareness and knowledge in organising safe discharges for their patients.

1-46

BRIDGING THE GAP IN THE MULTIDISCIPLINARY TEAM: DEVELOPING UNDERGRADUATE SIMULATION TRAINING FOR MEDICAL AND NURSING STUDENTS

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AIM:

To develop a high-fidelity simulation teaching programme, including nursing students and near-peer tutors to improve final year medical students' confidence in handling acute scenarios.

INTRODUCTION:

Medical students often feel inadequately prepared for clinical practice, particularly with acute care and prescribing. Patient safety depends upon effective communication within the multidisciplinary team (MDT), however there is often a lack of interdisciplinary training in medical school.

These factors can negatively impact clinical care, with notable increases in-hospital mortality every August during new intake of foundation doctors.

Near-peer simulation training is effective at improving confidence in acute scenarios. It has been demonstrated that inter-professional teamwork education improves communication and knowledge for both medical and nursing student participants. It was decided to create a near-peer simulated teaching environment at North Middlesex University Hospital (NMUH) to facilitate interdisciplinary learning and contextualise common acute scenarios faced by junior medical staff.

METHODS:

A simulation training programme was established utilising the trust's simulation suite. Multiple scenarios were developed for final year medical students and correlated to the University College London curriculum integrating assessment, prescribing and communication skills. Pilot PDSA cycles were performed and expanded into MDT sessions during a preparation for practice module. Each cycle was used to improve resources, feedback mechanisms, recruitment and debriefing strategies. Students completed pre and post Likert questionnaires assessing confidence with: A-E assessment, diagnosis, management and appropriate escalation. Each scenario was 30 minutes, including a diamond debrief session.

RESULTS:

Questionnaires were completed by 26 medical students. There was overall improvement in confidence in all parameters; including an 86% increase for A-E assessment and selecting initial investigations and a 71% increase for performing focused examination and forming differential diagnoses. All nursing students felt more confident in escalating appropriately.

CONCLUSION:

Simulation training reduces anxiety in managing acute situations before medical students commence foundation training; improving patient safety and care. We found a significant increase in confidence in managing acute scenarios and effective handover following the sessions. Nursing students found the sessions useful for escalation advice. Integrating nursing and medical students provided a valuable opportunity for interdisciplinary learning within the curriculum, enhancing communication and team-working skills. This highlights the importance of expanding the programme, including other clinical students.

1-47

INTRODUCTION TO SURGERY AND ANAESTHESIA: A 6-WEEK SURGICAL COURSE FOR EARLY-YEAR MEDICAL STUDENTS

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BACKGROUND:

With increasing emphasis on general practice and mental health within medical education, surgical teaching during medical school is growing increasingly neglected. The new curriculum implemented at King's College London GKT School of Medical Education, has followed this pattern. This has resulted in the removal of a dedicated surgical rotation, posing a hindrance to students interested in these specialties. Introduction to Surgery and Anaesthesia (ISA) is a student-led programme, composed of weekly 2-hour workshops integrating theoretical and practical skills necessary to pursue a surgical career.

METHODS:

A 6-week course was held addressing themes of surgical anatomy, surgical career development, theatre etiquette, basic surgical skills and a student-voted workshop on plastic surgery.

Within a week we received applications from 62 early-year medical students, with 20 confirmed places. A weekly newsletter emailed to all students following each session provided further resources and surgical opportunities. Students were asked to self-assess confidence in knowledge and skills using 10-point Likert scales before and after the course. Ethical approval was obtained.

RESULTS:

100% of the attendees would recommend the course to colleagues and found it useful being taught by medical students. 94% of students rated the course as "excellent" or "very good".

Mann-Whitney U tests were performed, comparing pre-course and post-course data. All confidence domains showed an increase: including basic surgical skills, suturing techniques, building a competitive surgical portfolio, abdominal anatomy and surgical emergencies ($p < 0.001$ across all). With an initial high drive to pursue a career in surgery amongst students, changes to an interest in surgery as a future career were not found.

CONCLUSION:

Undergraduate surgical education is declining nationally. One way to combat this is through cost-effective student-led training sessions, providing early-year students with the knowledge-base and confidence to further develop surgical competence during their clinical years. Additionally, the course provided all participants continued mentorship from our facilitators.

TAKE HOME MESSAGE:

The ISA student-led training programme can assist in combating the national decline in undergraduate surgical education.

1-48

INTERCALATING MEDICAL STUDENTS' PREPAREDNESS FOR CLINICAL PRACTICE

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INTRODUCTION:

One third of medical students in the United Kingdom choose to intercalate in another degree, aside from their undergraduate medical degree. The benefits of intercalating are well reported, but its disadvantages, including the reduction in preparedness for practice when students re-enter their medical degree, are under-examined. Previous research has shown that as little as six months away from practice can impact negatively on doctors' skills. This research shows the effects of intercalating on preparedness for practice among final year medical students at the University of Liverpool.

METHODS:

An anonymised, online survey was distributed to medical students at the start of the academic year in September 2017, to determine their self-perceived preparedness for practice as they entered their final year as an undergraduate. The survey asked participants to rate how prepared they felt across a number of domains relating to clinical practice. Responses were recorded on a Likert scale, and Mann-Whitney U analysis was used to determine any differences in preparedness between those who had intercalated and those who had not. A free-text question allowed participants to express any comments regarding preparedness and intercalation.

RESULTS:

A total of 59 students responded to the survey. In terms of median responses, participants reported feeling "fully prepared" to speak comfortably to any patient, and "mostly prepared" across all other questions. Those who had intercalated felt less prepared for their final year placement overall ($p < 0.001$) than those who had not intercalated, and across a range of questions. No significant differences were identified in self-reported preparedness between those who had revised their knowledge before starting their final year placement and those who had not. Responses to the free-text question indicated that students' preparedness had been negatively influenced by intercalating.

IMPLICATIONS:

Final year medical students felt prepared for their last year of clinical placement at the start of the academic year, but those who had intercalated felt less prepared than those who had not. Interventions by medical educators may be necessary to rectify deficiencies in preparedness among students who have intercalated. These should be targeted and structured interventions, given that students' own attempts to improve preparedness through self-directed revision made no impact on their self-perceived preparedness.

1-49

BUILT TO LAST: ENGENDERING EDUCATIONAL CONTINUITY AND DEVELOPMENT OF DOCTORS PREPARED FOR A CHANGING NHS

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INTRODUCTION:

Strong evidence shows that modern medical students need new ways of learning to become great doctors of the future, optimally prepared for the changing needs of clinical services. In answer to this, Cardiff Medical School in 2013 introduced 'C21' an undergraduate curriculum for the 21st Century. Incorporating requirements published in 'Tomorrow's Doctors' (GMC 2009) and 'Outcomes for Graduates' (2018). C21 proffers an integrated Case Based Learning spiral curriculum with early and continuous patient contact, with a focus on independent self-directed learning (C21: the new medical curriculum for Cardiff Consultation January 2012). In 2018, furthering the patient-facing, primary/secondary care interface and multidisciplinary learning experience, the Community and Rural Education Route (CARER) was introduced. Students are situated and learn within a community, primary care environment for 10-months following patients into hospital where they achieve learning outcomes that cannot be covered within community practice. We explore the value of a curriculum delivering education, cased-based learning and extended placements in hospital and community settings.

METHODS:

Longitudinal and mixed-methods evaluation follows the next three cohorts of CARER students (2018/2019/2020) before, during and after their CARER experience. Cohort 1: Participants comprise: All CARER students (n=13); Comparator Group C21 Yr 3 students; 9 host GP practices (~45; incl. GPs, allied health professional, administrative personnel); GP tutors; Secondary Care clinicians; Clinical Senior Lecturers; Clinical Skills Lecturers.

CONCLUSIONS/IMPLICATIONS:

Through facilitative case-based learning and extended placement in hospital and community setting learners and educators have a better understanding of how educational continuity fits with the medical curriculum. Students experience additional benefits of educational continuity through supervision of mentors in a multi-professional environment.

Educators' knowledge and awareness of the impact of community clinical placements for medical students increased and fed back into workplace teaching development and facilitation of targeted experiences. The CARER extended placement programme successfully identifies: shared goals, extends knowledge & implementation development engagement strategies for practice.

Students, clinicians and educators have been able to critique the contribution different elements that community placements make to patient outcomes.

Cardiff University. C21: the new medical curriculum for Cardiff. An opportunity to have your say. Consultation January 2012.

General Medical Council, Outcomes for Graduates 2018. 2018. Available from: https://www.gmc-uk.org/-/media/documents/dc11326-outcomes-for-graduates-2018_pdf-75040796.pdf

General Medical Council, Tomorrow's Doctors. 2009. Available from:

http://www.ub.edu/medicina_unitateducaciomedica/documentos/TomorrowsDoctors_2009.pdf

1-50

USING INTERPROFESSIONAL SIMULATED WARD TRAINING TO DEVELOP PROFESSIONAL SKILLS IN MEDICAL AND NURSING STUDENTS

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BACKGROUND:

The inaugural group of medical students will graduate in 2019 from the University of Buckingham Medical School. Following their final exams, students undertake an 'assistantship programme', whereby they shadow Foundation Year 1 (FY1) Doctors to further develop their professional skills and behaviour¹. In addition to ward-based experience, it was expected that each student also experience the challenges faced by new FY1s through simulation-based education.

OBJECTIVES:

Medical students were allocated a half-day inter-professional teaching session alongside third year nursing students. The key objective was to empower students with the professional skills and knowledge to enable them to effectively work within their new roles. The simulation aimed to replicate everyday clinical situations that FY1 doctors and newly qualified nurses are expected to manage. It aimed to enable students to practice and develop specific skills, tasks and knowledge in a 'safe simulated' environment. Specific challenges focussed on: Prioritising patients' needs, multi-tasking in the clinical area, effective communication, escalation and handover, and team-working. The opportunity for reflection, debrief and feedback was facilitated by expert faculty.

METHODS:

Four patient scenarios were designed for an 'acute admissions ward'. These focussed on elements of routine care (patient clerking and discharge, falls, prescriptions of routine drugs and TTOs, and clinical skills e.g. venepuncture). This was augmented by the challenges of managing acutely deteriorating patients (anaphylaxis and urgent transfer for tertiary neurological care). Simulated patients' were used to facilitate student-patient interaction. A simulated four bed ward bay was created in our dedicated facility with emphasis on realism. The simulation timeline of events was planned and rehearsed whilst also providing a 'dynamic' simulation whereby students' choices reflect the outcome for the patient. Each session commenced with an initial group introduction and briefing. One team (3-4 medical students, 1-2 nursing students) then completed a 45 minute simulation with a dynamic orientation to the environment and tasks. An initial debriefing followed before the first team conducted a handover to a second similar group of students. These students undertook a further 45 minute simulation. The session concluded with a full debrief including feedback from the simulated patients.

OUTCOMES:

Medical and Nursing students undertook the Assistantship simulation sessions. Outcome measures are demonstrated during debrief, as well as by students feedback. Students' highly rated the simulation experience, 95% of students reported learning in key professional skills: Prioritisation, Multitasking, Communication, Escalation, and Team working. Comments highlighted that the 'realism' of the ward and the challenges they had to face made it an excellent learning experience. Following the success of these sessions, similar simulated ward training will be implemented as part of the FY1 induction programme.



¹ General Medical Council - Outcomes for Graduates 2018. London. (June 2018)

1-51

'FORCING' STUDENTS TO FLIP: A THEORETICAL EVALUATION OF IMPLEMENTATION METHODS FOR MAXIMISING ENGAGEMENT IN THE FLIPPED CLASSROOM

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INTRODUCTION:

The flipped classroom is a learner-centred approach taken to teaching and learning that has been intensively developed as an alternative to traditional teaching methods over the past 15-20 years. One definition of the flipped classroom is "a set of pedagogical approaches that: move most information-transmission out of class; use class time for learning activities that are active and social; [and] require students to complete pre- and/or post-class activities to fully benefit from the in-class work" (Abeysekera and Dawson, 2015). The flipped classroom shifts power and responsibility between teachers and learners and aims to improve quality and depth of learning by increasing the efficacy of 'face-to-face' time spent between teachers and learners. However, the flipped classroom is not a 'one-size-fits-all' approach and careful consideration in design and implementation is needed to ensure risks and challenges can be mitigated and positive outcomes are maximised.

METHODS:

This report utilises narrative literature review to explore what the flipped classroom and flipped learning are, the benefits of flipped learning, the challenges to implementing the flipped classroom, and what methods can be used to overcome these challenges without detracting from the benefits. Findings from this report were used to guide the early stages of designing and implementing a flipped classroom project in clinical skills for medical students based at Barts and The London School of Medicine and Dentistry, Queen Mary University of London, UK.

CONCLUSION:

This report outlines principles and considerations that ought to be included in the design of the flipped classroom, utilising the self-determination theory of motivation. Design approaches that enhance students' feelings of autonomy; give them opportunities to demonstrate their competence; and facilitate positive social relations between students, peers, and instructors should enhance student motivation and engagement in the course. It has been noted that establishment of the flipped classroom model does not automatically result in flipped learning. Various questions remain and further exploration of the design and implementation of the flipped classroom is required. In addition, practical evaluation of the model in action is needed to assess the true impact on student motivation and performance.

1-52

SIMULATED ELECTRONIC PATIENT RECORDS FOR MEDICAL EDUCATION: CUT, COPY AND PASTE?

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BACKGROUND:

The patient record is fast becoming digitised in the UK. Electronic Patient Records (EPRs) enable real-time sharing of information within and across the interface of care. Training is essential as sub-optimal use of EPRs increases the risk of errors. Healthcare students are increasingly exposed to EPR systems, and so need require robust training within an environment made safe for learning. A national working group with representatives from 14 Universities met to define and refine learning outcomes. These were necessary to guide teaching.

The next steps included creation, sharing, use and re-use of simulated EPRs for local use. This facilitates collaboration and sharing of learning content within and across educational institutions. As commercial EPRs are auditable and record all additions and changes, the team found that records soon became unusable for teaching and had to be rebuilt from the beginning. This was time consuming and unworkable.

METHODS:

Members of the national group worked with a commercial EPR provider to explore the use of their system to specifically support healthcare simulation education rather than real clinical care. The commercial provider agreed to their system being used by academic institutions without charge, to support healthcare education. The commercial provider provided technical expertise and the working group used their academic expertise to design the EPR system for use in clinical education.

RESULTS:

The collaboration developed and refined a new feature of the EPR, which allows creation of simulated template patient records. These templates can be used for streamlined copying and creation of new records to support teaching, and can be easily shared across institutions.

CONCLUSION:

Students need to learn to work with and alongside EPRs in preparation for clinical practice in digital healthcare. The working group and commercial provider addressed a key barrier to use of EPRs as part of simulation in healthcare training: the creation, sharing and re-use of EPRs to support education. Simulated EPRs as part of teaching offer new and important authenticity in the simulation of the modern clinical workplace.

1-53

TO BOLDLY GO WHERE NO GENERALIST HAS GONE BEFORE: TEACHING CORE INTERNAL MEDICINE IN A PRIMARY CARE SETTING

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GPs are assuming a more visible role in the undergraduate curriculum, with some medical schools investing significantly in the amount of time spent in general practice by students. This is supported by GMC's Outcomes for Graduates 2018 (p.16, outcome 2:12). However evidence suggests that attempts to teach the full breadth of the core medical curriculum in primary care are not the norm¹. Of 32 UK medical schools surveyed in 2016, 100% included primary care teaching on generic skills such as communicating and consulting, and working in teams, but for individual subject areas within internal medicine this figure was significantly lower. Even topics such as mental health and prescribing safely in the community, which might be viewed as obvious for inclusion in an undergraduate primary care curriculum were taught in this setting by only 83% of schools.

The Norwich MB BS's relatively unique proposition is to teach across the full range of human body systems in primary care. For example, the locomotor system, respiratory medicine, neurology and psychiatry receive equal primary care curricular time, relative to their representation in the curriculum overall. Weekly learning outcomes centred around the problem-based learning process are mirrored in primary care teaching which happens in parallel each week of the campus-based part of the course. Thus students who have learned about say, dyspepsia, in a PBL session at the start of the teaching week will in the same week encounter patients with relevant conditions to

- interview and examine
- practice giving lifestyle advice relevant to dyspepsia, and prescribing appropriately
- learn about pathways for referral

Strengths of the model include	Weaknesses include
extremely positive student feedback (internal evaluation data)	perceived pressure on GPs to be subject experts
student exposure to positive role models in primary care	occasional failures of campus-based teaching to provide the factual knowledge students need to make sense of patient encounters
high levels (typically 28%) of alumni choosing primary care for specialty training after F2 (GMC data)	can present primary care as a place for learning medicine rather than as a setting where it is actually practiced

Previously published work² has demonstrated that it is possible to teach relatively large numbers of students in primary care. We have further demonstrated that it is possible to achieve breadth as well as volume, so that students encounter almost all common medical presentations in both primary and secondary care settings. The implications of this are:

1. nationally there is untapped potential for teaching core medicine in primary care
2. choice of subject material for primary care teaching may be negatively influencing student perception of the role of general practitioners and primary care in the NHS.

¹ Boon et al (2017) Medical undergraduate primary care teaching across the UK: what is being taught?, *Education for Primary Care*, 28:1, 23-28

² Howe Hand and Young (2011) Ten into one can go: gaining educational capacity through large group teaching in general practice *Education for Primary Care*, 22:4, 269-276