

Education

P-240 The educational impact of outsourcing on radiology registrar education

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Introduction: Outsourcing overnight imaging is increasing in DGHs. Whilst it is common to audit discrepancy/costing, there is little existing data regarding the proportion of positive findings and the subsequent loss to registrar education from overnight outsourcing. This affects exposure to emergency radiology curriculum and therefore we examine the impact of outsourcing on registrar education.

Methods: We performed a four month retrospective observational study at our institution, a teaching DGH (108,000ED attendances/pa). We included all out-of-hours CT/MRI scans from 8pm-8am, Monday-Sunday. We compared radiology reports from PACS to the college's Emergency Radiology curriculum diagnosis list. Non-emergency findings were not included.

Results: 1,505 CT scans were performed over four months. No MRIs were performed. 60% of scans were for CT-head, 15% for CT-KUB, 12% CT-Chest/abdo/pelvis(CAP) with the remainder a mixture of skeletal-CT, CT-PA and CT-angiogram. Overall positive findings rate was 31%. The highest rate was for CT-CAP(50%) and CT-Angio(60%) and the lowest for CT-head(15%) and CT-skeletal(10%).

Conclusion: Positive scans could be found on 31% of out-of-hours imaging, a significant amount. This figure is likely to be higher if non-emergency pathology was included. We appreciate hospitals may not have enough registrars to fill a night rota, instead we encourage trainees/trainers to review out of hours imaging, particularly angiograms and chest/abdomen/pelvis imaging where the highest proportion of positive findings are found. Our data can assist planning for 'on-call preparation' training and we recommend DGH trainees to actively seek major trauma and emergency MRI spinal imaging experience which was absent in our study.

P-241 Teaching dementia awareness to 2nd year medical imaging students

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Identification and rationale behind the key drivers as to why we revised our dementia training at Exeter university.

Discussion to describe setting up of a 2 hour-stage 2 seminar to include the use of 'Barbara's story' (Guys and St Thomas'), the use of discussion around SCoR recommendations and HCPC SETs. After examining these resources students were asked to put together a 5 minute presentation for stage 1 students on each set of the recommended SCoR guidelines.

Results to include student feedback on how sessions were received and pointers for further sessions as suggested by students themselves using EBI - even better if and WWW - What Went Well

Conclusion - seminars were well received and students could see the value of the session as they had all seen patients with dementia, so these sessions will have helped to ensure our students have the requisite skills and knowledge to understand dementia, how it presents and be well equipped and prepared to deal with the rising numbers of patients presenting to imaging departments in the United Kingdom in a compassionate and professional manner.

P-242 Interprofessional learning (IPL) working with others module assessment

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Aim: To evaluate an innovative approach to interprofessional learning and assessment.

Content: This poster describes and evaluates the assessment used for a module entitled 'IPL - Working with Others'. 320 students sat the module from; adult, child health, and mental health nursing, midwifery, social work, operating department practice, diagnostic and therapeutic radiography.

Relevance/impact:

Students were able to work together, learn from and about one another and understand one another's roles

The assessment mirrored interprofessional practice, highlighting issues that occur with interprofessional team working.

Case studies help students to see the relevance to their own professional practice

Outcomes: Both staff and students have found this to be both a good learning experience as well as a good way to assess IPL. Students had a 'real' experience of interprofessional working, facing the barriers and challenges to overcome which are similar to practice.

Discussion: Students were divided into interprofessional groups of eight students. Groups were given a case study of a service user coming into contact with different health and social care professionals. They worked together to produce a poster about the case study. These groups provided a 'real' experience of working together and understanding one another's roles (CAIPE, 2008). The students then had to defend their poster as a group and answer questions from two assessors.

In order to review the assessment both students and staff were asked to provide feedback about the assessment process, listing the positive and challenging aspects.

All staff provided feedback and approximately 60% of students.

References: CAIPE (2008) www.caipe.org.uk/about-us/defining-ipe

P-243 An exploration of student learning and performance of radiation physics: A correlative pilot project

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Objectives: To explore correlations between learning styles and assessment performance; to improve pedagogy and assessment alignment.

Background: Physics can be a conceptually difficult subject yet fundamental to radiography. Student centeredness requires educators to adapt pedagogy. No research could be found exploring the impact of student learning style and performance in the field of radiation physics.

Method: The Kolb's Learning style inventory (1984) was distributed to first year undergraduate diagnostic radiography students (n=21) - response rate was 81% (n=17). Individual participant results were collected per assessment component.

Results: The calculation of learning attributes led to the determination of learning style; 58.8% (n=10) Accommodating, 11.8% (n=2) Convergent, 11.8% (n=2) Assimilative, 5.9% (n=1) Divergent, 5.9% (n=1), Convergent/Assimilative and 5.9% (n=1) Divergent/Assimilative. Two-tailed Pearson correlation coefficient was applied to two sets of data, the Learning Style Inventory (LSI) scores and the assessment scores. A significant (p-value 0.003) negative correlation between Active Experimentation (AE) and Abstract Conceptualisation (AC) was found (r-value 0.669). A second significant (p-value 0.018) negative correlation was identified between Concrete Experimentation (CE) and Reflective Observation (RO). No statistically significant correlation was found between learning style and assessment performance.

Conclusion: Students demonstrated strength in practical tasks and undertaking new experiences. Weak areas correlated in planning and creating theoretical models. The physics component had the widest variation in results, indicating difficulties. The information obtained may be used to inform strategies for physics pedagogy and assessment.

P-244 CT head: Image interpretation performance of student radiographers

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The ability to perform CT Head scans is a first post competence for HCPC registration. At this university, students receive the technical CT component and at least two weeks clinical CT practice during year two. This research aimed to assess the image interpretation skills of final year student radiographers (n=30) using a longitudinal study. The results present the findings of the entry to year three test.

A quantitative method was adopted using a twenty image (10 normal, 10 abnormal) RadBench style test. Decision making was assessed using a five point scale (definitely normal, probably normal, possibly abnormal, probably abnormal, and definitely abnormal). Sensitivity, specificity and accuracy were calculated and the written preliminary clinical evaluation assessed.

Sensitivity scores ranged from 58-100% (mean 92%), specificity 33-100% (mean 69%), and accuracy 50-100% (mean 80%). Four students could already meet a 90% (13%) accuracy benchmark and a further eleven (37%) 80%.

The results suggest that with further education and training in year three, the vast majority of new graduates might well be able to achieve a 90% benchmark, able to support a radiographer lead abnormality signaling system. Refreshing brain anatomy and lots of case evaluations, in addition to further clinical practice, are critical to skill development. A further test will confirm graduation competence.

P-245 Exploring the personality traits of diagnostic radiography students

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Introduction: This research investigates whether diagnostic radiography students exhibit common personality traits and how these may be used to select prospective students. By studying three distinct year groups, this work explores how personality changes as individuals undertake the journey from student to radiographer.

Method: Given the relatively ambiguous nature of 'personality', there was equal value in collecting and analysing quantitative and qualitative data. For the quantitative aspect of the research the questionnaire used is based upon the Big-Five factor markers (Emotional Stability, Extraversion, Openness, Agreeableness and Conscientiousness) (Goldberg 1992) and is available from the International Personality Item Pool, a scientific collaboration (IPIP 2015). The qualitative aspect of the research utilised the Structured Focus Group Interview for the Five Factor Model of Personality (SIFFM) (Trull and Widiger 2002).

Results: The quantitative data reveal relationships with traits such as; agreeableness, conscientiousness and emotional stability and gender; agreeableness and age and emotional stability and prior education. While there is no statistical evidence to suggest any relationship with the Extraversion trait, the qualitative results suggest that this is an important aspect of being a radiographer. Even radiographers that describe themselves as introverts recognise the need for confident communication and often 'perform' in a more extrovert manner as the role demands

Conclusion: The five personality factors are broad and are shaped by influences such as gender, age and life experience, particularly between the ages of 18 and 30. It is doubtful whether the FFM can detect the subtle similarities in the personality traits of radiographers. Nonetheless, working in a stressful environment appears to develop facets of the personality, leading to changes in these higher level factors. Some of these facets manifest themselves as coping strategies. Moreover, as students' progress through their course, and become accomplished radiographers, their personalities become increasingly homogenous.

In this way the personality of the individual and the demands of the job form a pseudo-symbiotic relationship, where the demands of being a radiographer shape the personality and the personality shapes the role.

P-246 Embedding diversity and culture in a radiography and radiotherapy undergraduate degree programme: An inclusive curricula for patients and students

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University of Liverpool

Aim: To evaluate a new 2nd year professionalism module aiming to raise awareness of patient diversity.

Content: This module was developed to advance students' awareness of diversity and culture. Students received teaching in workshops from community groups and service users e.g. Black and ethnic minorities (BME), disabled, LGBT and received communication skills teaching (cultural communication, neurological disorders deaf and visually impaired). It was also apparent the programmes were attracting increasing numbers of BME students. The assessment gave students the opportunity to produce a health promotion poster and reflective report focussing on communication, diversity and patient dignity.

Relevance: Professional standards require radiographers to be aware of the impact of culture, equality, and diversity on practice and to practice in a non-discriminatory manner. The Equality Act 2010 means Higher Education Institutions must minimise disadvantages and meet the needs of people with protected characteristics. The Higher Education Academy suggests this necessitates new methods of learning, teaching and assessment.

Outcomes: The module was highly evaluated by service users, students and staff. Students reported the module made them think differently about themselves and additional challenges faced by many patients. It was evident the module allowed students to benefit from their own cultural and social capital. Students also commented that often their own communities were invisible in the profession and education.

Discussion: The module has added to the blended learning approach, developing the skills and support patients require with consideration of diversity. Student diversity is also valued by recognising the students own social and cultural capital in learning, teaching and assessment.

P-247 The transition of diagnostic radiographers during their first twelve months of practice

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The radiography profession is undergoing significant change in response to social, economic and political influences. This has resulted in increasing service demands and a requirement for graduates to possess a much wider range of skills (Decker, 2009). The pressures now being placed on newly qualified health and social care practitioners has initiated research in both nursing and medicine which has focussed on the transition of student to practitioner (Ross and Clifford 2002; Mooney, 2006). The aim of this project is to explore the experience of transition from student to practitioner in diagnostic radiography and to utilise the findings to improve transition in the future across a range of health professionals

Method: An interpretive phenomenological approach has been adopted consisting of three face-to-face interviews of each participant at three months, six months and twelve months post qualification. These time intervals have been identified in the literature as critical times (Decker, 2009; Smith and Pilling, 2007). Thematic analysis is to be utilised in that through examining each individual experience, commonalities and relationships, including differences across the participants may be identified (Gibson and Brown, 2009).

Results: The results from all three interviews will be discussed in an attempt to represent the journey of the participants.

Discussion: The themes identified in the results will be discussed in view of current literature and contextualised in order to identify areas for improvement.

P-248 Image Interpretation performance of diagnostic radiographers

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This research aims to benchmark radiographers' image interpretation skills, and to provide a unique characterisation of an individual image interpretation performance.

The notion that radiographers have the ability to provide an accurate report on radiographic images is well established. There is growing evidence that radiographers internationally are participating in preliminary clinical evaluations (PCE) and it is suggested that accuracy and confidence in PCE will improve with appropriate education and training. On the other hand, there is no published evidence about radiographer image interpretation capability in local nor asian context. Some early results will be presented.

Radiographer led image interpretation locally is still at an infant stage. The results from the study will provide better understanding of the current diagnostic radiography competencies in musculoskeletal image interpretation in a local tertiary hospital.

It is important for the department to track radiographer performance and also enable radiographers to benchmark themselves against others as desired so that both the individual and department can take steps to improve the performance of the individual. Benchmarking radiographers can further enable identification of educational needs necessary for future professional role development. Managers involved in recruitment of new radiographers can

also have fully visibility of current performance within the interviewees, and how that perform within the department cohort with a similar level of experience.

With the upcoming local state registration of the radiography professional and also the commencement of the first degree programme in diagnostic radiography, tomorrow's radiographer could have an individual image interpretation rating tied to their annual appraisal rating.

P-249 Analysis of training needs for radiographer image interpretation in clinical practice

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This study explored the training needs for radiographers to improve their image interpretation skills and clinical decision making to underpin potential radiographer-led discharge in an emergency department setting.

30 appendicular musculoskeletal projection radiography cases were made available to two hospital sites. The images contained a variety of findings; respondents were asked to rate images on a scale from 'definitely normal' to 'definitely abnormal' and supply a written comment. They were also asked to identify the appropriate treatment pathway from options provided and their degree of confidence in their choice.

In 2013 the College of Radiographers called for the introduction of preliminary clinical evaluations, replacing the traditional 'red dot' approach with written comments. There is evidence that patients with appendicular injuries could be discharged by the radiographer directly after imaging, without the need to be seen again by a doctor if no fracture is detected.

Sensitivity ranged from 40% to 94% (66% average) and accuracy from 44% to 83% (68% average). Respondents (n=31) were more likely to rate an image as definitely abnormal, than normal, which is reflective of confidence levels in interpretation skills. Confidence levels were higher in the presence of pathology than in normal examinations. The correct choice of discharge pathway varied from 22% to 100% and related to the confidence of their interpretation.

The sensitivity, specificity, accuracy and discharge data demonstrate a clear need for further education. Supporting radiographers through education and development is key to enhancing and expanding practice.

P-250 Role modelling in diagnostic radiography

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Aim: To look at how students learn through role modelling in practice.

Content: In many studies of work-based culture and the process of learning a profession, role modelling is mentioned. This presentation will use data from an ethnographic study carried out in one diagnostic imaging department to evaluate role modelling with diagnostic radiography (Strudwick, 2011). The methods used were participant observation for four months and semi-structured interviews with staff from the department.

Relevance/impact: The process of learning to become a radiographer involves the use of role models. Students observe radiographers doing their work. This suggests a type of 'apprenticeship model' of learning where the learner spends time with the experienced practitioner in order to learn skills.

Outcomes: Role modelling was shown to be important in diagnostic radiography.

Discussion: Other studies of students and environments where newcomers have to learn a role discuss role modelling. Colley et al. (2003) writing about learning and becoming in vocational education and training talk about the importance of role models in identity transformation and picking up norms. Holland (1999) and Mackintosh (2006) looked at student nurses and how they learnt to become nurses. They both talk about how role models influence the socialisation of students. Smith (1992) when writing about emotional labour in nursing says that students observe professionals and identify role models.

This poster presents data from the study to demonstrate how role modelling is important in the student's transition from student to qualified practitioner.

References: Colley H, James D, Tedder M and Diment K (2003) Learning as becoming in vocational education and training: class, gender and the role of vocational habitus. *Journal of Vocational Education and Training*, Vol. 55, No.4, pp 471-496.

Holland K (1999) A journey to becoming: the student nurse in transition. *Journal of Advanced Nursing*, 1999, 29(1), p229-236.

Mackintosh C (2006) Caring: The socialisation of pre-registration student nurses: A longitudinal qualitative descriptive study. *International Journal of Nursing Studies*, 43 (2006), p953-962

Smith P (1992) *The emotional labour of nursing: How nurses care*. MacMillan Education Ltd, Basingstoke.

Strudwick R M (2011) *An ethnographic study of the culture in a Diagnostic Imaging Department (DID)* DProf thesis, unpublished, University of Salford.

P-251 A reporting radiographer led educational approach to facilitate staff integration

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Background: Pressures from an amalgamation timeline of 4 sites into one with a significant influx of recently qualified radiographers and a host of unfamiliar new equipment. Consequently reporting radiographers recognised an increased reject rate, decreased image quality and a weak adherence to amalgamated protocols.

Aims/objectives:

Identify the causes of image quality deficit
Initiate processes to improve image quality
Reduce reject rates

Content:

Team cohesion was reduced due to the amalgamation, quantity of new staff, rotation, shift system and unfamiliar equipment.

Initial reporting radiographer led remedial presentations failed to reach enough staff. Consequently a reverse small radiographer team teaching approach was adopted, allowing staff self identification of knowledge gaps and following research, present to their peers for discussion.

Relevance/impact: Recognition of technical issues from plain radiography and change management associated with hospital mergers resulting in the development of a process to rectify and maintain staff development and image quality acceptability.

Outcomes: Departmental integration and morale have increased though this initiative with positive feedback from staff discussions resulting in images of improved diagnostic quality and reduced reject rates.

Discussion: Following the introduction of an integrated educational team approach we have experienced recognition of enhanced staff morale, decreased reject rates and improved image quality.

Our experiences have shown that it would be beneficial to initiate an integration and education plan prior to any move or initiate a system soon after merger.

P-252 The applicant evaluation of the use of Multi Mini Interviews (MMIs) in selecting radiography students

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University Campus Suffolk

Introduction: In line with the Health Education England's (HEE) core objective of values based recruitment, UCS implemented a new student selection strategy. Four Multi Mini Interviews (MMIs) of eight minutes were designed for each applicant to rotate through. These were:

Clinical scenario group discussion

UCAS personal statement

Understanding the radiography profession

Communication with a service user

Academic staff, service users, practice partners and final year undergraduate students all participated in the MMIs and formed part of the decision making process

Method: Due to a new process being used it was essential to evaluate the applicant experience in order to inform future use. Applicants were handed the questionnaire at the end of the selection day and a box was provided for them to place the completed questionnaires.

A questionnaire was designed using 14 quantitative statements. Using a 4 point Likert scale the applicants were asked to indicate their level of agreement to 14 statements. The data was then analysed using descriptive statistics and presented in a range of charts and graphs.

Results: 108 questionnaires were returned, 78 from diagnostic radiography applicants and 30 from radiotherapy applicants. Overall, 99% of students agreed or strongly agreed that they were satisfied with the selection day experience.

Discussion: Overall, the feedback was very positive in terms of clarity of questions, information, the design of the MMI stations and the overall experience. There were some areas identified for improvement such as the opportunity to ask questions, organisation and the understanding of the NHS values.

P-253 Implementing value-based recruitment through the use of Multi Mini Interviews (MMIs) in radiography

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University Campus Suffolk

Introduction: Values based recruitment is a core objective in the HEE Mandate (2014-15) and is also recognised as a key priority for HEE and its Local Education and Training Boards (LETBs). There is a growing body of evidence that traditional 'single panel' interview approaches do not provide the best opportunity to select appropriate applicants based upon an accurate assessment of their attributes and that such approaches are prone to bias and lack reliability (Humphrey et al., 2008). In contrast, the MMI offers the opportunity to more actively assess applicant's suitability for a programme of study by moving the applicant through a series of 'stations', each requiring them to demonstrate a skill or attribute. The use of multiple panels has been found by a number of studies to enhance the reliability of the selection process (Humphrey et al., 2008; Rosenfeld et al., 2008).

Design of the MMIs

Four stations of eight minutes duration were designed as part of the MMIs:

Clinical scenario group discussion

UCAS personal statement

Understanding the radiography profession

Communication with a service user

Academic staff, service users, practice partners and final year undergraduate students all participated in the MMIs and formed part of the decision making process.

Discussion: This presentation will discuss the design of the MMIs and how the course team incorporated the mandate for value-based recruitment in this process. Issues of implementation and management will also be explored in order to share the experience with other HEIs.

P-254 Health improvement and health promotion education of undergraduate radiographers in a Scottish HEI: 'Policy in practice' evaluation at the grass roots

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Aim: To address the impact value of profession specific policy of health promotion in a HEI.

Background: AHP's are a key workforce to improve and promote the health and wellbeing of the UK population. Training is cited as a major barrier to health promotion interventions in practice. There is very little empirical or evaluative literature in this area.

Method: The student /lecturing staff 'blocks of the implementation staircase' were chosen as a focus. The RUFDATA tool was used for a series of decisions framing the project. A democratic evaluation was used to establish the various 'value/worth' measures of health promotion by stakeholders within a course via; course documentation and assessment outcomes, grade distribution and appreciative inquiry (AI).

Results: Content analysis of course documentation showed an increased incidence of health promotion keyword use (7:0) between the pre 2012 and post 2012 programme. Grade profiles whereby health promotion education was embedded were distributed along a bell curve. AI sessions were audio-recorded and charts compiled using the AI framework. Thematic results were presented as a response series defined by one of four outcome measures; reaction criteria, learning criteria, behavioural criteria and results criteria.

Recommendations:

Defining the 'how' to deliver effective health promotion practice

Empowering radiographers to overcome the reductionist view of the role

Specific training being made available for academic staff regarding health promotion knowledge and skills

The need to share and incorporate health improvement and health promotion research into the wider profession

P-255 An investigation into breast imaging as part of the undergraduate (UG) education of diagnostic radiography students in the UK

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Aim: To determine any variations in the breast imaging component of the UG education of diagnostic radiography students in the UK.

Content: This presentation will outline the results of this CoRIPS funded project. The questionnaire and follow up interview results will be summarised to build a picture of breast imaging education within the UG radiography curriculum in the UK.

Relevance/impact: Naylor (2001) discussed the opportunities for career progression that existed in breast imaging in 2001. She mentions the shortage in the workforce in 2001 and the increase in workload. With the current pilot study increasing the age range for breast screening this is still a relevant issue (DoH, 2011).

It is hoped that this research will uncover any issues around recruitment to breast imaging that may come from UG education. The researchers are hoping to make recommendations for future education in order to improve the knowledge students have about breast imaging and enable them to see career opportunities that exist in the specialism.

The results of the study could assist the College of Radiographers in implementing strategies to influence the future breast imaging workforce.

Outcomes: An overview of breast imaging education as part of undergraduate radiography provision in the UK.

Discussion: The data may also be useful for future research into breast imaging education. Students could be asked about their knowledge of the subject. The breast imaging workforce could be asked about what attracted them to the specialism.

References:

DoH (2011) *Improving Outcomes, A Strategy for Cancer*. HMSO, London.

Naylor S (2001) *Opportunities for education in breast imaging*. Synergy. June 2001, p22.

P-256 An evaluation of interactive sessions involving radiography students and a simulated patient

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Aim: The aim of this paper is to evaluate the effectiveness of the simulated patient in different clinical scenarios used with undergraduate radiography students.

Content: Kilminster et al (2004 p. 724) found that students valued working with simulated patients in interprofessional workshops because of the feedback they received, the opportunities to practice new strategies, the 'clinical realism and work-based focus'.

The simulated patient provided feedback during and after each scenario, tailored to individual student needs. The effectiveness of particular styles of communication could be further explored by re-running parts of the scenario.

Relevance/impact: Students found realistic simulated learning experiences relevant to their future as a health care practitioner. Students benefitted from patient feedback which they would not normally receive in practice.

Outcomes: Students were challenged by scenarios involving an autistic patient and a patient with a possible life changing diagnosis.

The workshops helped students to learn new strategies for coping with more complex situations in practice.

Discussion: The students indicated that this was a value added learning experience as they saw the situation from the patient's viewpoint, thus avoiding making assumptions regarding what the patient actually wanted.

The autistic patient scenario was challenging in that it highlighted how apparently small details such as the colour of the walls could be viewed as a significant obstacle by the patient.

Students were able to stop, think and analyse their actions and modify their behaviour in response to feedback from the simulated patient in a safe environment.

P-257 Ultrasound career structure and education: A time for change

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Sheffield Hallam University

Aims: An exploration of the current ultrasound workforce challenges and the consequences of leading the profession through the culture change.

Content: A presentation of findings from a doctoral study exploring the influencing factors that have created resistance to change in the career framework and education of ultrasound professionals

Relevance: Persistent sonographer workforce deficits have been a challenge for more than two decades and has now reached a crisis point. HEI's are being asked to develop undergraduate training programmes however there is no consensus amongst professional groups what the graduate sonographer role will be and whether they will be accepted into the workforce.

Outcomes: The study will explore perceived barriers to change and develop strategies to facilitate and motivate sonographers to drive and adopt a new framework for ultrasound practitioners

Discussion: Since 2003 there has been much debate about, and historical reluctance to the concept of direct entry ultrasound training programmes. The SCoR (2009) explored the possibility of a direct entry programme and identified some of the advantages and issues with providing a direct entry route alongside the existing postgraduate provision. However, there is still no professional agreement on what the clinical role of a band 5 or 6 sonographer would be. It has become evident that in order to establish what the clinical role of a band 5 and 6 sonographer will be it is necessary to develop a clinical competence framework for these levels, however this is proving problematic with very little support from sonographers even though this is now on the national agenda.

The research identifies several key influencing factors that enhance the professional reluctance to change working practices and education. Value of professional identity, culture and maintaining a position of power are key factors when exploring what underpins the reluctance to engage with the concept of change. It is concluded that any progress in shaping the sonography workforce to meet the increasing service demands needs honest communication of rationale, engagement at all levels and creative education models.

P-258 Undergraduate anatomy teaching using ultrasound: Our experience

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Background: Traditionally medical undergraduate anatomy teaching has involved cadaver dissection and prosection. In recent years undergraduate anatomy teaching has been criticised, with suggestions to move towards more clinically relevant anatomy. With this in mind an ultrasound based anatomy teaching programme for first year University of Leeds medical students was designed and implemented. Ultrasound is safe and has the added advantage of allowing dynamic visualisation of structures and organs.

Content: Dedicated ultrasound sessions in groups of 10 students were organised with an anatomy demonstrator. Initially the ultrasound was carried out on a volunteer medical student and then the students were given the opportunity to practice on themselves or others. Anatomy demonstrators included sonographers, radiology registrars and radiology consultants. Prior to the session the students received a teaching package with cross sectional images, line diagrams and questions to answer.

The aims of the session included:

Dynamic demonstration of the major upper solid abdominal organs and how these organs relate to each other.
An introduction to ultrasound as an imaging modality with a basic overview of the physics principals.

Discussion: Ultrasound is a very clinically relevant, safe and useful adjunct to traditional anatomy teaching. It allows dynamic demonstration of organs whilst introducing ultrasound as a clinical investigation used in current medical

practice. After analysis of the current teaching scheme, the aim is to incorporate ultrasound skills into the medical school curriculum in the view to teaching students to gain ultrasound competencies in FAST scanning and ultrasound guided cannulation.

P-259 Trait emotional intelligence of student sonographers; is it learnt or inherent?

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¹Sheffield Hallam University

Aims/objectives: The aim of this study was to evaluate the emotional intelligence of student sonographers from different year groups and healthcare professionals in order establish whether EI is an inherent trait or can be learned over time.

Content: The poster will present the findings from an undergraduate study that investigated the trait emotional intelligence (EI) profiles of a cohort of first and second year student sonographers studying Obstetric or Abdominal Ultrasound. The cohorts consisted of radiography, midwifery and nursing healthcare professionals. EI profiling explored differences between the subgroups such as area of ultrasound study, 1st and 2nd years and professional backgrounds, comparing against the Trait Emotional Intelligence Questionnaire (TEIQue-SF).

Relevance: Developing an understanding of the EI profile of students undertaking ultrasound will inform recruitment and curriculum planning for ultrasound programmes

Outcomes: Radiographers scored the highest mean for the factors of Well-being, Self-control and Sociability. The highest score for Emotionality was a midwife. The difference of scores between professions were minimal and could not be considered as a significant statistic. The difference between years 1 and 2 Trait EI scores whereby the second years had undertaken obstetrics in the 1st year were significantly higher.

Discussion: The results indicate that Trait EI could be inherent to people who are drawn to obstetric practice however the results that demonstrated a significant increase in Trait EI in the 2nd year students would support the hypothesis that EI can also be learnt over time.

P-260 A case study of the development of interprofessional workshops over four years involving audiology and radiography students

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University of Leeds

Aim: The aim of this paper is to evaluate the effectiveness of interprofessional learning workshops used with final year radiography and audiology students over four years.

Content: It is intended that the workshops will provide an opportunity for students to gain an insight into how other professions cope with challenging situations in practice.

Students should then recognise the value of interprofessional learning through their interactions with other professions.

Relevance/impact: Four cohorts of the two professional groups consistently found the interprofessional workshops a relevant and effective learning and teaching method which met their expectations.

Outcomes:

Through the workshops all student cohorts:

Gained an Insight into each other's profession, facilitating the development of communication strategies.

Overcame communication barriers with other health professionals.

Developed interprofessional team working skills.

Discussion: Most students rated the workshop excellent or very good as it allowed them to learn new strategies and see how other professions cope with challenging clinical situations.

The sample size varied from year to year for both audiology and radiography students. Students expressed disappointment in the small cohort sizes of audiology students compared with the larger radiography cohorts.

In order to improve future workshops, students commented that having smaller student groups would be less intimidating and allow more students to volunteer to take part in the scenarios. In this way more students could

potentially benefit from interacting with the simulated patient and receiving feedback. In addition students may be more willing to volunteer and to contribute to the discussion.

P-261 Mentoring for students on clinical practice

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This is a summary of work done exploring the mentoring of students in clinical practice. A requirement for entry to the ultrasound programme is that students are provided with a named mentor. This mentor is expected to be familiar with the expectations and requirements of the role if they are to support the student to their fullest potential. The aim of the study was to investigate from a mentor's perspective; the characteristics required of a mentor and the constraints they encounter when undertaking the role. A questionnaire was sent to 19 mentors, a response rate of 60% (n=11) was achieved and analysed with a thematic approach. Of the responses 67% claim to be passionate about mentoring and teaching; of the 33% who do not claim passion for the role, none were given a choice about being a mentor. All respondents provided detail about the good practices they perceive they demonstrate in their role. Personal attributes of an ideal mentor was provided and compared with the findings in the literature. All mentors reported that they thought they should be knowledgeable, adaptable & supportive. The main constraints encountered within mentoring were lack of support from managers and colleagues and limited time to give to the role. A lack of student motivation and enthusiasm was also indicated as a restriction by some mentors. Conclusions were that greater awareness of the personal attributes and characteristics of the mentor should be considered. Mentors face constraint within their role; however solutions to this were not explored.

P-262 Developing a mentoring framework for a team of advanced practitioners in general radiography

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Background: Mentorship programmes are highlighted as providing support; helping newly qualified staff, reducing errors and increasing job satisfaction. The SCOR supports mentorship through its advantages of facilitating career progression, promoting quality and strengthening working relationships.

The Radiology department has currently developed a mentoring framework to support staff in general radiography and encourage participation in audit.

Objectives: The main objective of mentoring is to support the radiographers particularly the newly qualified radiographers. Mentor teamwork develops professional confidence, self-esteem and interpersonal skills. The mentoring framework encourages continued professional and protocol development and facilitates audit.

Design: A mentoring framework was developed prior to establishing the groups to determine the role, responsibilities and expectations of the mentor who is a reporting advanced practitioner, and the mentees. Additionally objectives were developed to focus each mentor and ensure consistency.

Mentor objectives:

1. Ensure awareness of current policies /guidelines/incidents
2. Discuss radiographic quality & technique
3. Offer support with audit projects
4. Encourage evidence based learning and self-reflection

An audit programme was designed to ensure all staff fulfil their responsibility to contribute to the audit process. Each group were allocated 2 audits and were responsible for data collection, the final audit report and dissemination of the results.

Conclusions: Mentoring has been successful in facilitating clinical audits and valuable in developing career progression, improving working relationships and maintaining quality. It provides a level of ownership and team work in clinical developments in radiology. Initial feedback from both the mentors and mentees on this new development has been positive.

P-263 Easing the transition: The importance of high quality mentorship in placement support

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Aims/objectives: To measure the impact of curriculum development and improvements to placement support. To make recommendations for further enhancement to placement support which benefit both students and mentors.

Content: Previous research carried out at one UK University has identified the transition to clinical placement as an experience which impacts greatly on student radiographers satisfaction levels with their programme of study. This can be due to concerns about using radiographic equipment, concerns about working with very ill patients, and/or concerns about working with clinical staff. Radiography educators at the institution have been working to address these concerns, and facilitate a smoother transition. This paper will disseminate new research carried out at the institution, which critically evaluated the impact of curriculum development and changes to placement support which were designed to improve student experience of the transition to their first clinical placement.

Relevance/impact: In a period of significant staff shortages in Diagnostic Radiography, investing time and effort in students is essential to ensure the workforce of the future, and likely to reap rewards in terms of retention.

Outcomes: The research found that there was still significant room for improvement in placement support, particularly around the role of mentors. A more formal system of mentor support, including training for mentors, is recommended

Discussion: This paper aims to encourage discussion and debate around the role of the mentor in diagnostic radiography education, in order to further enhance student experience, and provide additional support for mentors themselves.

P-264 Service user feedback in practice

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Aim: To provide evidence for the Quality Improvement and performance Framework (QIPF) KPI 1—Education Governance ‘Service user, staff and student feedback is used to improve education governance’ for student radiographers.

Content: The Department of Health (DH) outlined its vision for involving service users in the design and planning of healthcare services in its White paper, The NHS Improvement Plan: Putting People at the Heart of Public Services (DH, 2004). In educating the future healthcare workforce it therefore seems prudent to help students to develop working relationships with service users early on in their career.

The practice placement department in conjunction with the university designed a patient questionnaire and we have just completed the pilot and a limited trial.

19 questionnaires were distributed with the feedback being generally positive.

The poster will outline the pilot study and findings.

Relevance/impact:

Feedback from service users can contribute to student assessment

Students can reflect on the examination from the service user’s perspective

Students can use comments to inform change in their practice

Service users feel valued as their comments are being utilised

We can meet the requirements of QIPF

Outcomes: Service user feedback was largely positive.

Discussion: We plan to include service user feedback as a formative assessment method. Feedback from service users will be another useful tool for students to use to reflect on their performance in placement. We also plan to roll this out to all of our practice placement sites.

References: DH (2004) *The NHS Improvement Plan: Putting people at the heart of public services*. The Stationary Office, London

P-265 Games with aims

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City University London

Aims/objectives: We present an overview of how games and simulated scenarios are used as part of the learning process in a post-graduate programme.

Content: An overview of how games are used to meet learning outcomes and engage students with the learning process will be provided. A range of simulated scenarios and basic games are used within the programme, some of which will be showcased, including the use of classroom clickers, bingo and crosswords.

Relevance/impact: Collaborative experiential learning is a useful skill for health care professionals to develop during their education, to assist with changing demands in their future practice. The use of simulated learning and games can help engage students with the learning process and provide a way to link theory to practice.

Outcomes: Informal qualitative student feedback suggests that many students enjoy the games and find that they make learning fun.

Discussion: Literature has suggested that the use of games can improve motivation for learning, because it is fun, but also increase problem solving skills (Sung et al, 2015), help to develop critical thinking and reasoning, provide real time feedback and allow active and collaborative learning (Boctor, 2013). Simulation is used to provide an opportunity for students to try out new skills in a safe environment, where instant feedback can be provided.

P-266 Enhancing the student experience with the use of iPads during simulation sessions

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At UCS the student radiographers spend eight weeks at university before practice placement. During these eight weeks they are introduced to the role of the radiographer and the clinical environment. The students also have two evening sessions at the local NHS Trust where they can move and use the X-ray equipment and practice positioning one another for X-ray examinations. The students can practice clinical skills in a safe, low pressure environment, facilitated by staff.

There is currently very little written about preparing student radiographers for placement. However, it is known that students feel under pressure from qualified staff when entering practice. The purpose of these sessions is to increase the students' confidence by providing a safe environment in which they could make and learn from mistakes. These sessions have to date received positive evaluation. However in order to enhance the learning experience and to fully integrate theory and practice the introduction of image viewing as part of these sessions is proposed. This will allow the lecturers to immediately demonstrate and explain variations of positioning the patient by using a range of pre-selected images.

Project aim: To evaluate student experience evening simulation sessions following the introduction of image viewing via the use of iPads

Objectives:

- 1.To deliver two evening simulation sessions to current first year students
- 2.To introduce image viewing alongside the current delivery of the evening sessions for one session
- 3.To collate feedback from the students as to whether or not the introduction of image viewing has enhanced their learning in these sessions

Following the session, the students were asked to complete a questionnaire to establish whether or not their learning has been enhanced by the introduction of image viewing as part of the simulation sessions. The findings will be discussed as part of this presentation.

P-267 Knobs matter: A pictorial review of ultrasound knobology

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Modern ultrasound machines have an ever-increasing number of features and functions, which can leave the inexperienced practitioner feeling overwhelmed, utilising few of them. Error rate and exam quality in ultrasound is generally accepted to be user dependent. Despite using ultrasound frequently in their clinical practice, many radiologists, especially registrars, are unfamiliar with several of the more advanced settings. Using each of the settings correctly can avoid many errors of omission and interpretation.

This poster will be a pictorial review demonstrating how the optimisation of just one setting for each case can have a dramatic impact upon the quality and diagnostic potential of the ultrasound images. It will focus on the settings which are most useful to the general ultrasound practitioner and will be most helpful to registrars and trainee sonographers. A brief explanation of the function of each of the illustrated settings will be given. The advice for each case will be applicable to most brands of ultrasound machine.

The aim of the poster is to encourage practitioners to perform ultrasound in a more dynamic way, increasing understanding and familiarity with ultrasound. This will also improve confidence in the technology that they use during a normal working week and on-call. The hope is that practitioners will begin to use optimising functions that are simple to employ but previously unknown to them. The implementation of this will improve diagnostic quality of ultrasound and minimise error rate.

Other

P-268 Radiologist's cluedo: Can you detect the signs?

Jenn Shiunn Wong; [Kirsten Pearce](#)

PHNT

Aims/objectives: This poster uses the well-known board game, Cluedo to provide a pictorial review of some radiological eponymous signs.

Content: Was it Colonel Mustard in the dining room with the spanner? We will attempt to link signs from different specialties through radiological eponyms, specifically using the murder weapons in Cluedo as our inspiration. We will present a number of cases with the relevant imaging, diagrammatic illustrations and accompanying explanations to help the general radiologists familiarise themselves with radiological presentations of conditions such as melorheostosis, femoro-acetabular impingement or ulcerative colitis. Answers and discussions for each of the cases will be unveiled in a quiz-style format to engage the reader.

Relevance/impact: This is aimed to be a memorable and fun teaching aid for the general radiologist. This poster can be used as an educational tool to either introduce new eponyms or to allow readers to revisit their existing knowledge.

Discussion: With over 8000 eponymous names in medicine, it can sometimes be difficult to memorise what each one stands for. In addition, the eponymous descriptors are often tenuous, making visual associations even more difficult to conceptualise. By using this novel method of teaching, conditions such as a lead pipe colon in ulcerative colitis, the pistol grip deformity in femoro-acetabular impingement or the dagger sign in ankylosing spondylitis become easier to visualise and remember.

P-269 The celestial art to radiology: A pictorial review

[Kirsten Pearce](#); Jenn Shiunn Wong

PHNT

Aims/Objectives: The aim of this poster is to widen the general radiologist's horizons regarding a constellation of different radiological signs.

Content: This is a light-hearted pictorial review of radiological eponymous signs, specifically those relating to astronomy. We aim to provide the reader with the imaging, descriptions, diagrammatic illustrations and explanations regarding a variety of radiological signs. These will include examples such as the galaxy sign, comet tail sign, half-moon sign and a starry sky etc. These examples take inspiration from a variety of radiological specialities.

Relevance/impact: Many radiologists will be familiar with some but not all of the signs provided in our poster. We hope this will be a memorable pictorial review for our readers, designed to aid their recall and help them appreciate the gravity of their clinical significance.

Discussion: Eponymous names with visual similes can be illuminating, memorable and can aid teaching, particularly to those learning about radiology for the 1st time or in subject area they are unfamiliar with. Equally the terms used can be tenuous and difficult to visualise. This article is not designed to exalt the benefits of eponyms, but hopefully our diagrammatic illustrations and explanations can make these eponyms more universally understood.