research is required to identify what training and preparation is required for a new AI-powered work environment, or indeed what AI education is available at undergraduate and postgraduate levels.

Method: This CoRIPS funded study included two electronic surveys (i) one was performed amongst radiographers and radiologists investigating their baseline AI knowledge, identifying what training they desire and preferred method of delivery. (ii) the second survey was for academics and educators in Higher Education Institutions to identify educational provision of AI in the radiography curriculum across the UK and Europe.

Method: Data collection and analysis are underway and will be completed at the European Congress of Radiology in Vienna, March 2023. Participant feedback will determine perceptions of clinical staff and identify topics for inclusion in postgraduate/undergraduate programmes.

Method: will inform the next phase of the study which will incorporate focus groups with staff to explore adaptation of the curricula to enable incorporation of AI into clinical practice.

Conclusion: Radiographers, radiologists and Higher Education Institutions have been surveyed to ascertain current knowledge and needs for AI training. Collaboration and symbiosis between academia, clinical and industry partners is possible, to pioneer AI education tailored to medical imaging staff. The impact of this research has the potential to be of significant value across disciplines within the wider healthcare sector.

Proffered papers: Patients needs

L4.1 The patient's voice is the master key in a clinician’s toolbox

Margot McBride

University of Dundee

Introduction: Until you are a patient yourself, you don't always acknowledge the importance of a patient's voice which can turn the key in a clinician's decision-making during a diagnostic work-up. Today's challenges have increased the likely hood of spending less time on patient-centred care. Clinicians, including radiology staff are busy trying to find solutions to the growing pressures from rising referral lists and workforce shortages which have led to many patients not having basic care leading in some cases to death. My Doctor of Philosophy study of Cushing syndrome highlighted that the fundamental challenge for clinicians was time to listen to their patients. Being a Cushing's patient and a diagnostic radiographer was the driving force behind my desire to find out if other patients had similar negative experiences. This paper concentrates on a section of the disease-specific health-related quality of life questionnaire used in my study, which focuses on the clinicians' abilities to listen to their patients' voices.

Method: 86 patients participated. All felt that most clinicians have little time to listen. 61.6% of them relied on their support groups and helplines to share their experiences and seek advice. Feelings of frustration, dismay were experienced by 43.3%, expressing that their appointments were, "rushed," with very little information and what to expect regarding the long-term effects.

Conclusion: As new chapters of medicine open, the lessons learned are that we should listen and not just consider patients as a patient with a medical condition, but a human life with needs beyond her or his medical condition.

1. McBride M. (2023). Patient-centred care when diagnosed with a Sarcoma and Cushing syndrome. Radiography; Jan; 10.1016/iradi.2022.12.005 2. McBride M et al. (2021). Quality of Life in Cushing's syndrome. Best Practice & Research Clinical Endocrinology & Metabolism, Elsevier; Jan; 35 (1): 101505. 3. McBride M. (2020). Cushing syndrome and disease: Why does it take so long to diagnose? Is the interdisciplinary medical team aware of the signs and symptoms? What are the consequences? Bioscientific; Sept. 22nd Endocrine Abstracts, Pituitary and Neuroendocrinology.

L4.2 From student radiographer to breast cancer patient and back again: What can we learn?

Kirsty Mounsey

University of Leeds

Background: In the UK alone in 2020/21 there were 423,838 referrals to the two week wait pathway in regards to breast cancer, in which 25,202 then went on to have cancer treatment after diagnosis via this route. Patient centred care (PCC) informs, educates and engages patients in their care planning and treatment. The quality of PCC given along the breast cancer pathway has the potential to impact both a patient's and their relatives wellbeing and empowerment throughout the pathway and has strong links with improved treatment adherence, reduced anxiety and mortality.

Purpose: As a allied healthcare professional (AHP) it is crucial to recognise the value of our interactions and actions along each step of the breast cancer pathway. As a student diagnostic radiographer with lived experience of breast cancer I will offer my personal experiences along the breast cancer diagnosis and treatment pathway and how this has affected my practice as a student Radiographer.

Summary of content: Breast cancer is currently one of the most prevalent cancers in the UK with over 25,000 people been treated in the year 2020/21. PCC informs and engages patient in care planning and treatment and has been shown to have a huge impact on patient outcomes. AHPs have a huge role to play in delivering high quality patient centred care and as a student Radiographer with lived experience of breast cancer, I want to offer insight into how this has influenced my practice and aim to influence others.

1.Cancer Research UK. 2023. Early Diagnosis Data Hub. Cancer Research UK 2. NHS England (2019). The NHS Long Term Plan https://www.longtermplan.nhs.uk/ 3.Nyhof BB, Wright FC, Look Hong NJ, Groot G, Helyer L, Meiers P, Quan ML, Baxter NN, Urquhart R, Warburton R, Gagliardi AR. Recommendations to improve patient-centred care for ductal carcinoma in situ: Qualitative focus groups with women. Health Expect. 2020 Feb;23(1):106-114. doi: 10.1111/hex.12973. Epub 2019 Sep 18. PMID: 31532871; PMCID: PMC6978860.

L4.3 Ready patient one: Could a virtual experience help as a preparatory tool prior to MRI scanning?

Darren Hudson[1]; Christine Heales[2]

[1]InHealth; [2]University of Exeter

Background: Despite developments in MRI which have helped improve the patient experience, the procedure remains a source of anxiety for many, which can be expressed as claustrophobia due to the physicality of the scan equipment. Traditional forms of patient preparation only go so far in representing what to expect from a scan, and so virtual reality (VR) has emerged as a potential means of providing enhanced support prior to a scan. The aims of this feasibility study were to assess how realistic a virtual scan experience was for participants and how this might help manage emotional control associated with having an MRI.

Methods: Fifteen participants volunteered to undergo a VR session comprising of two virtual scan experiences. Measures to assess their demand and resource appraisal of the experience, and reported anxiety throughout were obtained, along with feedback on its realism, usefulness and application.

Method: All participants managed to complete two virtual head scans within VR. Restriction was the dominant concern regarding claustrophobia and was shown to significantly reduce following the exposures. Demand-resource evaluation scores showed six participants to initially be in a state of 'threat', with all moving to, or lowering a state of 'challenge' following exposure, in particular after the second. Confidence to cope significantly improved following exposure to the virtual experience. The virtual experience was considered realistic by users with some areas for improvement highlighted.

Conclusion: Results suggest VR does suitably represent reality and elicit an emotional response that can be improved through exposure, thereby suggesting such tools as beneficial in preparation for MRI.

L4.4 Education and training of radiography practitioners when caring for people living with dementia

Robert Higgins[1]; Adam Spacey[1]; Anthea Inness[2]

[1]University of Salford; [2]McMaster University

Background: Despite abundant literature on the diagnosis of dementia, limited research has explored the lived experiences by radiography practitioners when delivering care to people living with dementia (PLWD).

Method: A two-stage qualitative multi-method study was used to explore the perceptions and compatibility of current professional guidance by both radiography practitioners and key stakeholders involved in developing the Society and College of Radiographers clinical practice guideline document for caring for people with dementia. Fifteen diagnostic and two therapeutic radiography practitioners from across the UK participated with three asynchronous online focus groups. One core member and three members from the key stakeholder group participated with individual semi-structured interviews. Data analysis included narrative and thematic analysis.

Method: Participants from both stages identified enablers and barriers to providing care to PLWD. One key theme that emerged was the need for role specific education and training rather than current generic resources from other disciplines so that radiography practitioners have the knowledge, attitude and skills needed to deliver good care to PLWD. However, it was acknowledged that sustaining dementia training could be difficult in a busy department.

Conclusion: Dementia training needs to be specifically tailored for radiography practitioners to bridge the gap between guidelines and clinical practice, rather than being generalised from other disciplines. Dementia-related education should be available at pre-registration and post-registration (continuing professional development) levels.

L4.5 'I felt helpless. The radiographer took charge and I couldn't help the patient in distress.' A survey exploring the role of placement experiences in student radiographers' confidence of adapting practice for autistic patients

Ben Potts

Birmingham City University

Background: In part due to the barriers to healthcare services that autistic people face, they die approximately 17 years younger than non-autistic people (Doherty, 2022; Mason, 2021). With the ubiquitous use of imaging and oncology services, we must address what role radiography plays. Adapting practice can improve patient experience and therefore is taught in radiography courses; however, nothing is known about how placement prepares students to do this. This study explored the impact placement experiences have on students' confidence in adapting their practice for autistic patients.

Method: Final-year diagnostic and therapeutic student radiographers were recruited via an internal university email and social media. 44 participants completed an online survey, which used a mixed methods approach. The data was analysed using content and thematic analysis.

Method: The majority of students reported not feeling confident overall. Those that did have experience external to studying radiography or had both observed and practised adaptations on placement. There were ten reports of observing distressing interactions, which broadly had a negative impact on students' confidence. The themes that emerged are: 1) distressing experiences 2) involving a caregiver 3) external experience 4) patient information 5) the quality of adaptions used.

Conclusion: Generally, participants with more experience felt more confident, however, their perception of the experiences had a much more important and complex relationship with their confidence. It is important that students with no placement experience are able to gain practice through simulated means, ensuring the future radiographic workforce is equipped to care for autistic patients.

Doherty, M., Neilson, S., OSullivan, J., Carravallah, L., Johnson, M., Cullen, W. and Shaw, S.C.K. (2022) Barriers to healthcare and self-reported adverse outcomes for autistic adults: a cross-sectional study. BMJ Open 12, e056904

Mason, D., Ingham, B., Birtles, H., Michael, C., Scarlett, C., James, I. A., Brown, T., Woodbury-Smith, M., Wilson, C., Finch, T. and Parr, J. R. (2021) How to improve healthcare for autistic people: A qualitative study of the views of autistic people and clinicians. Autism 25(3), 774785.

L4.6 Autism-friendly MRI: A research project to improve autistic individuals' experience of and access to magnetic resonance imaging

Nikolaos Stogiannos[1]; Jane Harvey-Lloyd[2]; Andrea Brammer[3]; Sarah Carlier[4]; Karen Cleaver[5]; Jonathan McNulty[6]; Cláudia Sá dos Reis[7]; Barbara Nugent[8]; Clare Simcock[9]; Tracy O'Regan[10]; Dermot Bowler[1]; Sophia Parveen[11]; Keith Marais[11]; Georgia Pavlopoulou[12]; Chris Papadopoulos[13]; Sebastian Gaigg[1]; Christina Malamateniou[1]

[1]City, University of London; [2]University of Suffolk; [3]Manchester University NHS Foundation Trust; [4]Etablissement Hospitaliers du Nord Vaudois; [5]University of Greenwich; [6]University College Dublin; [7]University of Applied Sciences and Arts Western Switzerland; [8]MRI Safety Matters® organisation; [9]Great Ormond Street Hospital for Children NHS Foundation Trust; [10]The Society and College of Radiographers; [11]Community involvement, City, University of London; [12]University College London; [13]University of Bedfordshire

Background: Autistic people may need to undergo MRI examinations for various clinical conditions or research. The MRI environment may be overwhelming for these patients, with known sensory sensitivities and/or communication challenges. This research project aimed at improving the patient experience, scan quality, and access to this valuable tool.

Method: A systematic review of the literature was initially conducted to evaluate knowledge and gaps related to the topic. Following that, an online survey was built on Qualtrics and was administered to all MRI radiographers in the UK. A second survey was then administered to autistic people and their carers/parents who had undergone MRI examinations in the UK.

Method: Tailored communication, adjustments to the MRI environment, familiarisation/distraction techniques were proved to be very important in the literature. The survey to MRI radiographers (n=130) highlighted the need for effective communication (87.7%), optimisation of the examinations (64.7%), and environmental adjustments. Lack of guidelines was also reported as a challenge for radiographers (37.7%). Autistic individuals (n=112) reported high levels of claustrophobia (44.8%) and rated their MRI experience as average. They reported not receiving information (29.6%) and environmental adjustments prior to the scan.

Conclusion: These studies highlight the need for autism-related training, while the importance of optimal communication strategies tailored to the patient's needs and preferences was also strengthened. MRI environments

should be adjusted and become more inclusive, so that all autistic patients have a better MRI experience. Autistic people should be empowered to disclose their identity to help radiographers optimally adjust the procedure for them.

Proffered papers: Radiotherapy – practice development

M5.1 Exploring therapeutic radiographer career outreach in the UK

Shannon Johnson[1]; Kim Meeking[2]; Zoe Grant[3]; Joanna McNamara[4]

[1]Somerset NHS Foundation Trust; [2]Radiotherapy UK; [3]University of Suffolk; [4]Sheffield Hallam University

Background: Radiotherapy is needed by 50% of people with cancer (Borras, 2015). Therapeutic radiographers (TRs) who plan and deliver this vital treatment are under increasing pressure to keep up with growing demand and are faced with their highest vacancy rate on record (8.1%) (COR, 2021).

A key factor in recovering from the cancer workforce crisis is successful recruitment of TR students. Current recruitment strategies include promoting radiotherapy at career events and work experience placements. The success and impact of such strategies has not previously been explored.

This study aims to find out what career outreach activities are successfully being utilised nationally and what factors contribute to students choosing a career as a TR.

Method: Two online surveys were developed to capture opinions and experiences from 1st year undergraduate students and qualified staff involved in radiotherapy career outreach. The surveys were distributed from June 2022 to March 2023. Data analysis included descriptive statistics and qualitative thematic analysis.

Method: 85 student responses highlighted the key influencing factor for enrolling in a radiotherapy degree was a friend or family experience of cancer, followed by positive experiences at university open days and work experience in radiotherapy. A quarter of the respondents attended career events; 3D visualisation of radiotherapy and hands-on activities were key influencing factors. Data collection for the professional stakeholder survey is ongoing with results anticipated in April 2023.

Conclusion: Ensuring patients understand the role of a TR can positively impact both a patient's treatment and radiotherapy recruitment. Future analysis will allow for recommendations on national recruitment strategies required.

1. Borras JM, Barton M, Grau C, et al. (2015). The impact of cancer incidence and stage on optimal utilization of radiotherapy: Methodology of a population based analysis by the ESTRO-HERO project. *Radiotherapy Oncology* 116(1): 45-50 3.

2. College of Radiographers (2021) *Radiotherapy radiographic workforce 2021 UK census.*Available at: https://www.sor.org/getmedia/8503732e-e584-4c8a-a4e0-51b61f37690b/2021_CoR_radiotherapy_radiographic_workforce_uk_census_report_v3.pdf (Accessed: 01 February 2023)

M5.2 Evaluation of a pilot therapeutic radiographer (RTT)-led radiotherapy late effects service

Samantha Bostock; Gillian Bestwick; Elaine Smith

Gloucestershire Hospitals NHS Foundation Trust

Background: Radiotherapy can cause debilitating late effects which impact on a person's physical and psychological health. In response, an RTT-led radiotherapy late effects service was piloted. Patients were given opportunities to talk about symptoms and their physical/emotional impact. A joint management/support plan was created aimed at reducing the impact of late effects on an individual's daily life and ability to function. This study evaluated the impact the service had on patients using it.

Method: Patients using the pilot service between May 2020 and July 2022 were invited to complete questionnaires after their initial appointment and again 3-4 months later. Quantitative data was evaluated to assess how patient's needs were met. Thematic analysis of patient's comments provided qualitative evidence on service impact.

Method: Questionnaires returned from 34 patients after their initial consultation showed 97% reported it met expectations, had a positive outcome and they gained better understanding of their symptoms and how to self-manage. 3-4 months later 100% of 17 patients scored > 8/10 for satisfaction with the service (M=9.65, SD=0.61). Mean response regarding service impact on symptoms affecting daily life was 7.47 (SD=2.65) with 76% of patients scoring 7 or higher. Patient-reported themes across both questionnaires: positive emotions - feeling more hopeful, positive, reassured; information - information provided improved understanding of symptoms; positive outcomes - symptoms resolved or reduced with action plans: praise for the RTT leading the service.