SHORT PAPER SESSION K2

K2.1 Modified Delphi Study - A UK DRAD standardised clinical assessment tool

Miss Lisa Ford[1], Mrs Gillian Coleman, Amelia Drake, Mrs Emma Edwards, Donna Holdcroft, Rachel Tulloch, Elle Wyke, Dr Emma Hyde
[1]*Keele University, Keele, Newcastle-under-Lyme, United Kingdom*

Background
A full systematic review and scoping review were conducted. The systematic review found a considerable amount could be learned from the processes, methods and evaluations of standardisation in other professions. The scoping review found that standardisation already exists for clinical placement in some areas. However, there are elements of current clinical assessment tools that require further discussion and standardisation.

Method
The objective of the modified-Delphi study was to consult key stakeholders to reach consensus on content and wording of a new, standardised clinical assessment tool. Components included were: underlying principles; draft elements, draft clinical competencies; draft professional behaviours; integrated review process; marking criteria; and roles and responsibilities. Participants were asked to respond to consensus statements via Likert Scale and provide qualitative comments, which would be analysed via thematic analysis.
Results
Round one was completed by 110 participants, including students, academics, practice educators and clinical staff across the UK. Consensus was reached for the integrated review process, roles and responsibilities, professional behaviours and draft elements. Data from the Likert and open-ended questions were used to shape round two which reviewed the wording used for clinical competencies and the marking criteria. At the point of submission, the results from round two were being analysed in preparation for disseminating round three.
Conclusion
The results of the modified Delphi will support the design of a clinical assessment tool in diagnostic radiography This will provide a consistent approach to clinical assessment processes for education providers and placement providers across the UK.

K2.2 Research supervision and engagement: Experiences of an NIHR undergraduate internship for radiographers

Dr Martine Mallinson[1], Miss Jessica Smith[2], Balvinder Bharath[3]
[1]*Mid Yorkshire Teaching NHS Trust, Wakefield, United Kingdom,* [2]*Keele University, Staffordshire , United Kingdom,* [3]*University of Leeds, Leeds, United Kingdom*

Background
As a profession, radiography is underrepresented in clinical research (Peckham et al, 2021), however it is an integral part of teaching, learning and professional practice. For radiographers there is a need to refine skills in research supervision and increase confidence in mentorship on their trajectory to future research leader. Undergraduate diagnostic radiography curricula aim to provide students with foundational knowledge of research design and evidence-based practice through engagement with the literature or low risk, small-scale primary research (McKnight, 2022). However, opportunities to gain practical knowledge and experience of research governance, deliver 'real-world' clinical research, shadow research-active radiographers and develop understanding of research careers are limited.
Purpose
Undergraduate student placement provision at research centres have developed ad hoc as institutions seek innovative ways to increase placement capacity. New programmes such as Undergraduate Internships (National Institute for Health and Care Research (NIHR)) now formally offer the opportunity for early-to mid-career researchers to experience what it takes to supervise research interns. For organisations, they are a mechanism for research capacity and reputation building.
Summary of content
We will present the experiences of two undergraduate diagnostic radiography students who have recently completed a research internship. We will map their motivations for applying for the placement, the knowledge, skills and experience gained and how this experience will inform their future career. Alongside, we will present the perspective of the host researcher who designed and delivered the placement underpinned by an ethos of Team Science.

1. Knight, K.L. (2022) Research Pedagogy in a UK radiography setting. Radiography 28(1): 80-87.
2. Peckham, S., Eida, T., Zhang, W., Hashem, F., Spencer, S., Kendall, S., Newberry Le Vay, J., et al. (2021). Creating Time for Research: Identifying and improving the capacity of healthcare staff to conduct research. Creating Time for Research (February 2021) - Full Report.

K2.3 Perspectives on audit and research participation amongst radiology trainees and radiographers

Ashlin Nourolahi-Oskoui[1], Mr Andy Creeden[2], Joanne Wormleighton[2], Dr Claire Robinson[2], Mr Daniel Togher[2], Caryl Richards[1]

[1]Department of Cardiovascular Sciences, University of Leicester, Glenfield Hospital, Leicester , United Kingdom, [2]University Hospitals of Leicester, Glenfield Hospital, Leicester, United Kingdom

Aim

To investigate the interest level, opportunities, challenges and barriers to undertaking audits and research experienced by radiology trainees and radiographers at the University Hospitals of Leicester (UHL).

Methods

An online survey comprising a combination of 17 multiple choice and free text questions was distributed to all radiology trainees and radiographers at UHL.

Results

Out of 69 respondents 35% were Radiology trainees (n=24) and 59% (n=41) were radiographers. Ninety-eight percent of respondents expressed an interest in completing a research-related activity, ranging from audit completion (49%) to formal training in research (29%). However, while a total of 48% respondents had completed an audit or quality improvement project, either as the lead (26%) or in a team (22%), only 29% had presented their work at a conference and 28% had led to publication. Main barriers included: lack of time; lack of skills and training; difficulty identifying opportunities and starting a research project; equipment restrictions; and a lack of support. Suggested facilitators included: improving awareness and access to opportunities; dedicated research contacts; guidance or mentorship; formal training and teaching such as statistical methods; and allocated research time.

Conclusion

Radiology trainees and radiographers are eager to participate in research however opportunities for learning and networking are lacking. These findings suggest a demand for our newly established local imaging research network to synergise inter-professional training in imaging and improve access to research opportunities and facilities in compliance with global curricula requirements [1-3].

Table

Grade	Number of Respondents
Radiology ST6+	0
Radiology ST5	5
Radiology ST4	6
Radiology ST3	5
Radiology ST2	5
Radiology ST1	3
Radiographer B8	5
Radiographer B7	14
Radiographer B6	16
Radiographer B5	6
Other	4

Base Site	Number of Respondents
Leicester Royal Infirmary	18
Leicester General Hospital	9
Glenfield Hospital	22
Other	3

Does your post have an allocated research time?	Number of Respondents
Yes	11
No	58

Previous Research Education	Number of respondents
PhD	0
MRes/MSc or equivalent dissertation	12
MBBCh/BSc or equivalent dissertation	10
PGCert/PGDip	11
Training without formal qualification	2
None	9
Other	8

Aims	Number of respondents
Commence Audit project	23
Complete Audit project already commenced	11
Commence a research project	16
Complete a research project already commenced	4
Conduct a systematic review or meta-analysis	8
Submit completed project for conference presentation	7
Submit completed project for publication	4
Apply for a research grant or funding	5
Gain formal research training	20
Complete formal research training already commenced	2
Apply for ethical approval	0
Other	6

Have you previously presented your work at a conference?	Number of responses
Yes – as 1st or co author	15
Yes – as 2nd or named author	5
No	32

Have you previously had your work published?	Number of responses
Yes – as a 1st or co-author	13
Yes – as a 2nd or named author	6
No	33

How would you rate the level of research support in your department?	Number of responses
Significant	6
Moderate	14
Poor	16
Minimal	33

How would you rate the level of support for statistical analysis?	Number of responses
Significant	1
Moderate	9
Poor	18
Minimal	41

Are you aware of any statistical analysis network available?	Number of responses
Yes	1
No	68

Which areas of research do you feel you require most support?	Number of responses
Research planning and study design	58
Analysis of data collected	37
Interpreting data	33
Final report draft	32

Main barriers to research goals
1. Time 2. Don't know where to start 3. Finding a supervisor 4. Lack of training 5. Lack of guidance 6. Statistical training

Interventions you believe could be of benefit
1. Regular research forum 2. Regular research club 3. Regular research teaching 4. Statistics teaching 5. Mentorship 6. Timetables research self-development day

1. The Royal College of Radiologists (2019) RCR Curriculum Clinical Radiology Curriculum Update 15 May 2023. London: The Royal College of Radiologists. Available at: https://www.rcr.ac.uk/exams-training/specialty-training/clinical-radiology-curriculum/
2. The College of Radiographers (2021) College of Radiographers Research Strategy 2021–2026. London: SCoR. Available at: https://www.collegeofradiographers.ac.uk/research-grants-and-funding/cor-research-strategy/
3. Sloane, C. and Miller, P.K. (2017) Informing radiography curriculum development: The views of UK radiology service managers concerning the 'fitness for purpose' of recent diagnostic radiography graduates. Radiography, 23, pp.S16–S22.

K2.4 Establishing consensus priority areas for the use of simulation in pre-registration education and training of diagnostic radiographers

Mrs Elaine Wilkinson[1], *Miss Erin Berry*[1], *Mr Edward Cadogan*[1], *Dr Jamie Beck*[1]
[1]*University Of Bradford, Bradford, United Kingdom*

Background

Simulation based education (SBE) is a widely used pedagogy with an increasing evidence base for supporting development of knowledge, skills, and behaviors through authentic experiences in a controlled and safe learning space, demonstrating its value as an adjunct to practice placement1-5.

Method

A UK Delphi and focus group was undertaken to determine the priority areas of pre-registration diagnostic radiography education which could be supported with SBE, a suitable framework, how SBE could be structured within the curriculum, and methods of evaluation. This work was commissioned and funded by NHS England.

Results

Priority areas of the curriculum for the use of SBE fell into 4 themes: Imaging practice; Collaborative person-centered care; Safe and effective practice; Professional behaviors, attributes and skills. Learning outcomes determine the design of appropriate simulation activities, though resource availability is a factor in design. SBE is appropriate throughout training to scaffold learning and increasingly complex competencies, aligning with the new Standards of Proficiency. Within a model of preparation, brief, facilitation, debrief and evaluation, emphasis was placed on effective debrief to promote understanding and enhance learning. Evaluation should be used to improve effectiveness of simulation activities, and further research undertaken to objectively measure the learning gain and sustainability of SBE.

Conclusion

SBE is seen as a valuable and effective learning tool to support development towards professional capabilities in a safe controlled learning environment, adjunct to practice placement learning, despite its resource intense nature.

1. Chau, M; Arruzza, E; Johnson, N Simulation-based education for medical radiation students: A scoping review. Journal of medical radiation sciences 2022;69(3):367-381
2. Hazell, L; Lawrence, H; Friedrich-Nel, H Simulation based learning to facilitate clinical readiness in diagnostic radiography. A meta-synthesis. Radiography 2020;26(4):e238-e245
3. Lee, K; McInerney, J Transferability of Learning from Computed Tomography Simulation into Clinical Practice: Student Perspectives. Interactive Learning Environments 2024;32(1):67-77
4. O'Connor, M.; Rainford, L. The impact of 3D virtual reality radiography practice on student performance in clinical practice Radiography 2023;29(1):159-164
5. Partner, A.; England, A.; Young, R.; Shiner, N.; Bridge, P. Post COVID-19 trends in simulation use within diagnostic radiography and radiation therapy education Radiography 2023;29(4):684-689