An investigation of undergraduate diagnostic radiographer expectations of clinical role development

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Introduction

- Numerous key government policies & initiatives[1,2,3,4] have led to the development of advanced practice roles in the UK.
- Radiographer reporting is a well-established example of advanced practice[5,6,7,8,9], set to grow further as workforce pressures continue[3,4] and demand increases[10].
- UK student ambitions for role development have been surveyed previously[11]; however, no literature has explored the modality preferences of such students.

Aim

The aim of this study was to explore the preferences and perceptions of third year undergraduates with a specific focus on the reporting role.

Methods

- University ethical approval was granted for a survey-based study utilising a questionnaire which consisted of 6 closed questions and 4 open questions.
- Informed consent obtained prior to data collection, with participants provided with a participant information sheet.
- The questionnaire was distributed to final year diagnostic radiography undergraduates, in paper format, after a taught session at a HEI in the North-West of England.
- A link to a 'SurveyMonkey' version of the consent form and survey was disseminated through Twitter.
- Responses were summarised in Excel (descriptive statistics), and transferred into SPSS (inferential statistics).

Results

- Response rates were 100% (n=34) and (est.) 2.4% (n=18) for university-based and Twitter surveys respectively; no statistically significant difference in the demographics (p=0.071 to p=0.120).
- Respondents were predominantly female (65%); had A-level as their highest qualification (71%) as opposed to a previous degree (17.6%) or leaving certificate (2.9%); and were of 'school-leaver' age (69%) at the start of the degree.
- The top three overall combined preferences were: reporting (22.8%), CT (21.5%) and MRI (13.4%) (Figure 1).
- 73.5% anticipated specialising in under 2 years; none anticipated specialising in over 4 years (Figure 2).
- Correlation between modality preference and clinical/university experience of the modality was higher for the Twitter cohort (clinical: $r_s = 0.589$; university: $r_s = 0.592$) compared to the university cohort (clinical: $r_s = 0.327$; university: $r_s = 0.371$ respectively).

Results (cont.)

Modality	UoL	Twitter	Total	%
Reporting	24	10	34	22.8%
CT	20	12	32	21.5%
MRI	7	13	20	13.4%
Ultrasound	12	6	18	12.1%
General	10	3	13	8.7%
Management	7	2	9	6.0%
Fluoro/interventional	6	2	8	5.4%
Paediatric	6	1	7	4.7%
Nuclear medicine	2	3	5	3.4%
Mammography	2	1	3	2.0%

Figure 1. Student modality preferences

- University cohort: respondents with A-Levels were significantly more likely (p=0.039) to anticipate specialising in under 2 years.
- Twitter cohort: those including reporting as a preference were significantly more likely (p=0.036) to anticipate specialising in under 2 years.

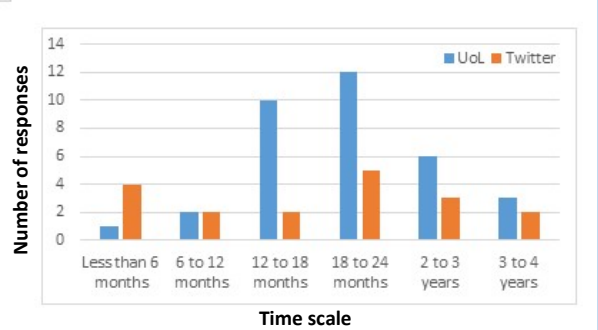

Figure 2. Anticipated time to specialise

Discussion/Conclusions

- Whilst the preference for reporting amongst the respondents differs to previous literature[12,13,14,15,16] due to data collection, cultural and professional differences, CT and MRI have previously been identified as popular modalities.
- The anticipated time to specialise is slightly more ambitious than in previous research[11].
- The weak to moderate correlations[17] of preference to clinical/university experience do not support previous qualitative findings[12,13,14] that experience and preference are strongly correlated.
- Identification of reporting as the most preferred modality to specialise in is a novel finding in the context of UK HEIs.

References:

[1] Department of Health (2000). *The NHS Plan: A Plan for Investment a Plan for Reform*. Her Majesty's Stationery Office: London. **[2]** The NHS Confederation (2006). *Meeting The Challenge*. NHS Confederation: London. **[3]** NHS England (2014). *Five Year Forward View*. London: NHS England. **[4]** NHS England (2017) *Next Steps on the NHS Five Year Forward View*. London: NHS England. **[5]** Society and College of Radiographers (2013). *Preliminary Clinical Evaluation and Clinical Reporting by Radiographers: Policy & Practice Guidance*. London: Society and College of Radiographers. **[6]** Milner, R.C. & Snaith, B. (2017), 'Are reporting radiographers fulfilling the role of advanced practitioner?' *Radiography*, 23: pp 48-54. **[7]** Price, R.C., Miller, L.R. & Mellor, F. (2002), 'Longitudinal changes in extended roles in radiography', *Radiography*, 8: pp 223-234. **[8]** Price, R.C. & Le Masurier, S.B. (2007), 'Longitudinal changes in extended roles in radiography: A new perspective', *Radiography*, 13: pp 18-29. **[9]** Snaith, B., Hardy, M. & Lewis, E.F. (2015), 'Radiographer reporting in the UK: A longitudinal analysis', *Radiography*, 21: pp 119-123. **[10]** NHS England (2017). *Cancer Workforce Plan Phase 1: Delivering the cancer strategy to 2021*. **[11]** Williamson, K. & Mundy, L.A. (2010) 'Graduate radiographers' expectations for role development – The potential impact of misalignment of expectation and valence on staff retention and service provision', *Radiography*, 16: pp 40-47. **[12]** Gonzaga, M.A., Kiguli-Malwadde, E., Francis, B. & Rosemary, B.K. (2010) 'Factors influencing students' choices in considering rural radiography careers at Makerere University, Uganda', *Radiography*, 16- pp 56-61. **[13]** Sá dos Reis, C., Pires Jorge, J.A., York, H., Flaction, L., Johansen, S. & Mæhle, S. (2018) 'A comparative study about motivations, expectations and future plans for professional development in four European radiography programs', *Radiography*, 24: pp e91-e97. **[14]** Warren-Forward, H.M. and Taylor, J. (2017) 'Barriers and incentives for choosing to specialise in mammography: Qualitative analysis', *Radiography*, 23(1): 32-37. **[15]** Warren-Forward, H.M. (2018) 'Barriers and incentives for choosing to specialise in mammography - A survey of Australian undergraduate diagnostic radiography students', *Radiography*, 24: pp 360-365. **[16]** Pratt, S.D. (2005). *Radiographers' perspectives on their changing roles and some implications for their pre-service education in Wales: a study of three departments*. PhD Thesis: University of Wales, Cardiff. **[17]** Prion, S. & Haerling, K.A. (2014) 'Making Sense of Methods and Measurement: Spearman-Rho Ranked-Order Correlation Coefficient', *Clinical Simulation in Nursing*, 10: pp 535-536