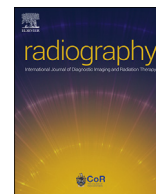




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## The changing role of pre-admission work experience (clinical visits) in therapeutic radiography, diagnostic radiography and operating department practice: Academic perspectives (part 2)



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### ABSTRACT

**Introduction:** A clinical visit (work experience) provides an opportunity for prospective students, prior to registration, to visit a clinical department to observe health professionals in practice. The Covid-19 pandemic interrupted access to clinical visits; this article explores the value of clinical visits and the alternatives implemented as a response to Covid-19 restrictions from an academic perspective.

**Methods:** This article reports the quantitative phase of a three-phase mixed methods study. A survey was distributed to Higher Education Institution (HEI) education leaders for onward distribution to academics supporting recruitment for diagnostic radiography, therapeutic radiography and operating department practice programmes. Qualtrics online survey software was used to administer the survey which was launched in October 2020. Descriptive statistics summarised the data.

**Results:** Representing 37.7% (n = 18/49) of eligible universities, 34 responses from 18 HEIs across England and Wales were received. Seventy-eight percent of respondents strongly agreed that they are vital in confirming career choices. Prior to the Covid-19 pandemic, 64% of respondents' programmes had a clinical visit requirement, yet with improvements in simulation and online learning alternatives, 48% agreed that in the longer-term clinical visits will become obsolete.

**Conclusion:** Requirements for clinical visits vary between professions and HEIs; academics welcome an opportunity to standardise work experience. Regardless of prospective student background and selected profession/university, all should have equitable and easily available access to high quality resources to support career decision-making.

**Implications for practice:** The enforced withdrawal of clinical visits may impact upon subsequent attrition associated with 'misinformed career choice'. Alternatives to clinical visits, while less onerous for students, admissions staff and clinical colleagues alike, need to be carefully evaluated to ensure they offer prospective students a realistic understanding of the profession.

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### Introduction

Work experience aims to provide an opportunity for prospective healthcare students, prior to registration, to visit a clinical department to observe health professionals in practice. These 'clinical visits' are normally of a short duration (less than 1 week) and provide insights, observation, and work shadowing (Health Education England 2021).<sup>1</sup> While clinical visits are highly valued,<sup>2,3,4,5</sup> they are resource intensive, particularly for high throughput and high-risk service departments such as radiology, radiotherapy and operating theatres. Traditionally the requirements for a clinical visit

have varied between the therapeutic radiography, diagnostic radiography and operating department practice (ODP) professions; our review of UK Online Prospectuses identified that 60% of these programmes (n = 35/58) required/strongly advised clinical visits.<sup>5</sup> ODP programmes do not require a clinical visit as access to operating theatres is often prohibited, particularly for the under 18 age group, yet ODP attrition is high, particularly associated with the first clinical placement.<sup>6,7</sup> A misinformed career selection (wrong career choice) has been associated with ODP attrition,<sup>7</sup> which is also a factor in radiography attrition.<sup>4,8,9</sup>

A mixed methods study was designed to explore the perceived value of clinical visits in Therapeutic Radiography, Diagnostic Radiography and Operating Department Practice and to make recommendations regarding best practice for clinical visits and

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their alternatives that may have positive impacts on recruitment and retention. This aspect of the admissions process has surprisingly been seldom studied, with only one relevant article by Bridge and colleagues<sup>3</sup> which explored clinical visits in therapeutic radiography.<sup>3</sup> In our previous article exploring student perspectives via focus groups,<sup>5</sup> we reported similar findings; clinical visits were highly valued by those who had experienced them, although they affirmed rather than inspired career choices. While most radiography courses required a clinical visit, few had supported the applicant to arrange it which the students noted may disadvantage some applicants and discourage others.<sup>5</sup>

In early 2020, a worldwide Covid-19 pandemic was declared. This resulted in disruption to the delivery of healthcare services, refocusing rapidly to provision of emergency services and care of Covid-19 patients, at the expense of routine and elective services<sup>10,11</sup>. This sudden shift in workloads put additional pressure on the allied healthcare workforce,<sup>12</sup> and work shadowing opportunities were understandably withdrawn. At the same time healthcare education was impacted, with many universities switching rapidly to online delivery.<sup>13,14,15,16</sup> The impact was compounded by the withdrawal of many clinical placements for registered students,<sup>14,17,18,19</sup> requiring innovative alternatives to be designed and delivered over a short timeframe. Building upon an earlier qualitative study of student experiences of clinical visits,<sup>5</sup> this article explores academic staff perceptions of the role and value of clinical visits and the necessary changes implemented as a response to the Covid-19 pandemic.

## Methods

An online survey of radiography and ODP academics with a role in recruitment in Higher Education Institutions allowed further investigation into the role of the Clinical Visit (CV) in the UK. This was informed by the qualitative findings from Phase 1 (focus groups with first year students) and 2 (analysis of UK University Online Prospectuses).<sup>5</sup> Ethics approval for the survey (Phase 3) was gained from Sheffield Hallam University Research Ethics Committee ID ER2615378.

Survey questions were designed by the author team incorporating information drawn from the literature and informed by findings from the website analysis and student focus groups undertaken in the earlier phase of this mixed methods study.<sup>5</sup> For the ease of respondents, the survey was developed using mostly closed ended questions although opportunities were provided for free text comments. Following a consenting block, questions commenced with demographic information (8 questions) and the impact of Covid 19 on CV (7 questions). A series of Likert scale agree-disagree questions were applied to: personal views of CV (12 questions); operational and practical aspects of CV (15 questions); content and context of CV (4 questions); recording and assessing CV (10 questions); and alternatives to CV (9 questions). Ranking questions were used to explore the potential components of a clinical visit (9 questions) (ranked from most useful [1] to least useful [9]), and the usefulness of alternatives to clinical visits (n = 8) ranked from most useful [1] to least useful [8]. Finally, participants were asked if they had any final thoughts on CVs. The completed questionnaire was pre-tested within the author team to identify any structural and process errors (including engagement through both mobile and computer devices), and to check relevance to the three professional groups. It was then piloted by three academic staff who had an understanding of clinical visits but who would not be completing the final survey. This piloting identified the time required for completion and highlighted some minor amendments in wording to aid understanding and a minor change to the order of questions.

Subsequent analysis of the pilot data did not highlight any further required amendments.

Qualtrics (Provo, UT, USA) online survey software<sup>20</sup> was used to administer the survey in English (available to view in supplementary materials). The Heads of Radiography Education forum acted as the gatekeeper for the distribution of the survey; these radiography education leaders were requested to distribute the survey information to their pre-registration diagnostic and therapeutic radiography admissions tutors, programme leaders and clinical education leads. The survey was distributed in October 2020 with a prompt 3 weeks later. The ODP professional body distributed the survey to specialist interest groups for Admissions Leads, Programme Leaders and Clinical Co-ordinators, and it was re-opened for further ODP responses in February 2021. Descriptive statistics summarised the quantitative data with percentages reported from the number of respondents to questions. Analysis was undertaken using a combination of Qualtrics v2021<sup>20</sup> and IBM SPSS Statistics for Windows, v24 with graphs/charts created in Microsoft Excel v365 and Qualtrics. Free text comments were analysed thematically<sup>21</sup> and selected quotations were integrated into the results section. The themes informed the discussion with due regard for the limitations of gathering qualitative data through a questionnaire (including the widely differing level of detail provided by respondents due to different levels of interest and time limitations).

## Results

Thirty-four responses from 18 separate Higher Education Institutions (HEI) were included, which represents 37.7% (n = 18/49) of eligible universities. Respondents were spread across the English regions and Wales (Fig. 1), but no responses were received from Northern Ireland or Scotland; some respondents worked across multiple regions. The majority held an admissions tutor or recruitment lead role (38%), with programme leaders (15%), clinical placement co-ordinators (20%) and professional leads (9%) also represented. Respondents were experienced in the role, with 59% respondents having more than 2 years in post. The majority of respondents supported Diagnostic Radiography (58%) programmes, approximately a quarter (24%) supported Therapeutic Radiography, with Operating Department Practice roles comprising almost a fifth (18%). All respondents indicated the academic level of the programme as Pre-registration undergraduate degree.

The majority of respondents' programmes (52%) were linked with between 5 and 10 partner Trusts/Health Boards. This was the most common response within all three professional groups. However, 42% of diagnostic respondents indicated that their programme worked with more than 10 partner Trusts. The standard cohort size was also variable (Fig. 2) with 39% having 50–69

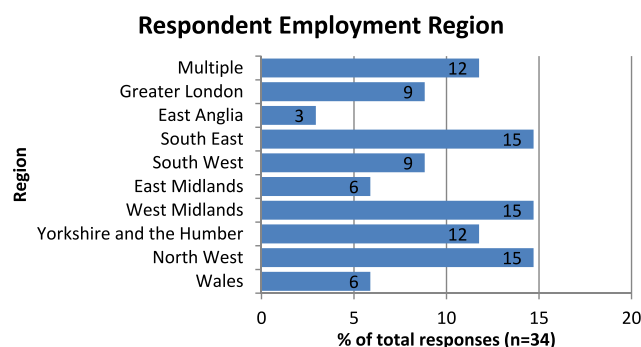


Figure 1. Respondent employment regions. Some respondents indicated their university reach spanned more than one region of England ('multiple' row).

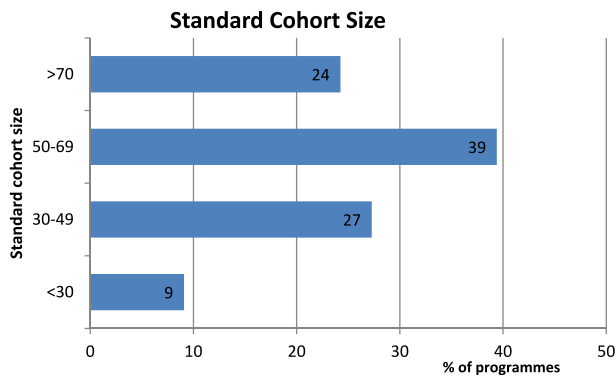


Figure 2. The standard cohort size for the programmes.

students and 24% having >70 students. The most reported class sizes in ODP and RT was under 49, whereas 58% of diagnostic class sizes were 50–59 with 37% being over 70. The majority of respondents (62%) indicated that they had a planned increase in cohort size for the following intake, only 3% planned a decrease.

Prior to Covid-19, 65% of respondent’s programmes required prospective students to undertake a clinical visit prior to admission (Fig. 3), with the content and duration of the visit largely determined by the clinical centre. The majority of therapeutic radiography respondents (n = 7/8) indicated their programmes offered clinical visits, while most ODP respondents (n = 5/6) did not require clinical visits. Diagnostic radiography respondents (n = 14/19) indicated that most programmes were requiring visits. Respondents (95%) indicated that these clinical visits had been suspended due to Covid-19 restrictions. Consequently, “At interview we may need to be mindful that candidates may have limited understanding about the profession but we will investigate their sources of knowledge and what information they have accrued”. Of those who had required clinical visits, 59% believed that they would return to their previous practice ‘post Covid-19’. The remainder were unsure whether they may be offered in future, or they believed they would not continue with clinical visits. Further context was provided by respondents around the process and policies of their clinical visits (Supplementary Materials Table 1).

Seventy-eight percent of respondents strongly agreed that clinical visits are vital in confirming career choices (Fig. 4), reassuring students they have made the right career choice, and converting initial interest to applications. Clinical visits are also valuable in helping to shape students’ expectations and are important in discouraging inappropriate applications. Respondents were unconvinced that clinical visits will impact on the number of applications or have a role in converting university offers to acceptances.

“A clinical visit provides an applicant with a clear understanding and expectation of the professional role. It also provides the applicant with an opportunity to demonstrate that they are aware of the profession in their supporting statement. Additionally, it also allows clinical partners to feed back on the motivation and attitude of a prospective applicant”.

Respondents provided additional support for their views of the value of clinical visits to the HEI, and the value to the applicant, captured thematically in Table 2 (Supplementary Materials). The best time to organise a clinical visit yielded conflicting responses. Most respondents (42%) agreed that they should be arranged prior to submitting UCAS applications (Fig. 5), although responses were equivocal regarding the need for a clinical visit for students entering through clearing. Most respondents agreed that there should be a minimum age for students to attend a clinical visit, with the majority (60%) stating that the minimum age should be standardised across healthcare professions (Fig. 5). There was disagreement regarding the duration of the visit, with 58% recommending a full day and 42% believing that a half day is sufficient. However clinical colleagues and programme assessors sometimes recommended longer visits:

“Our requirement for clinical visits was praised during our last programme revalidation, with assessors suggesting our one day visit was perhaps too short and should be two days”.

The majority recognised that arranging a clinical visit is challenging for school leavers (78%), though this demonstrates proactivity on behalf of the applicant.

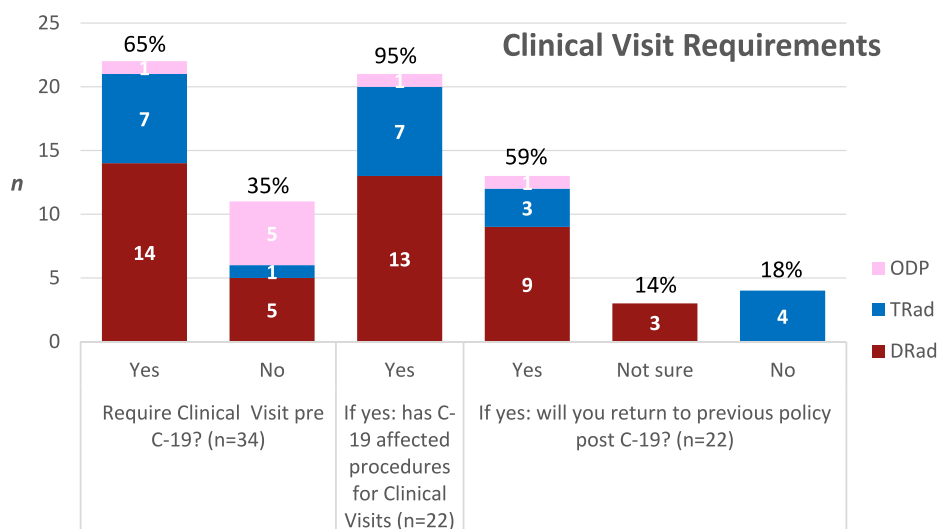


Figure 3. Clinical visit requirements in the programme before, during and post Covid-19. Key: C-19 = Covid-19 pandemic; ODP = Operating Department Practice; TRad = Therapeutic Radiography; DRad = Diagnostic Radiography.

### Purpose & Value of Clinical Visits

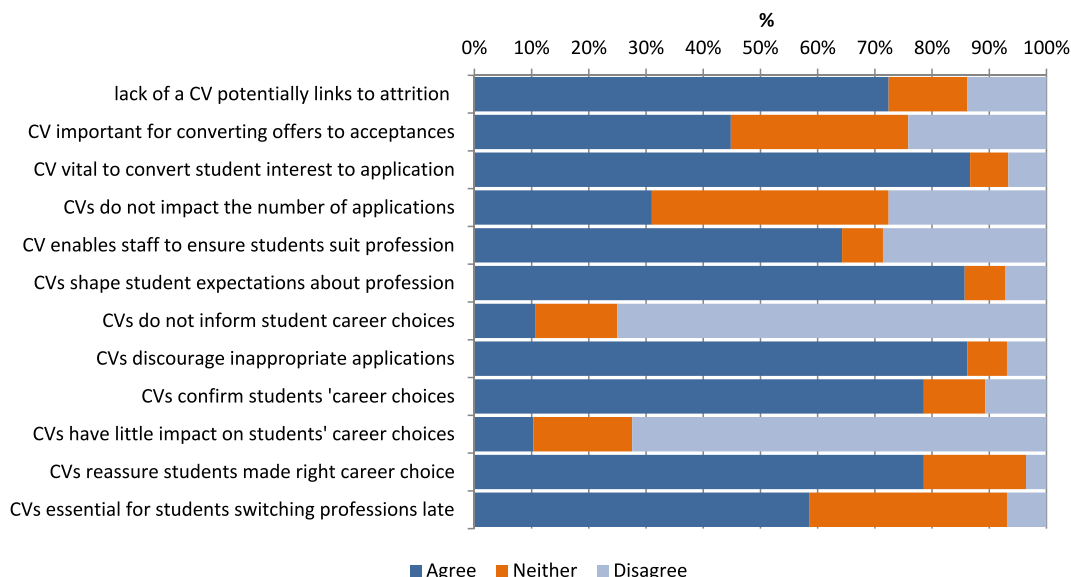


Figure 4. Respondent considerations of the purpose and value of clinical visits (CV).

### Operational & Practical Aspects of Clinical Visits

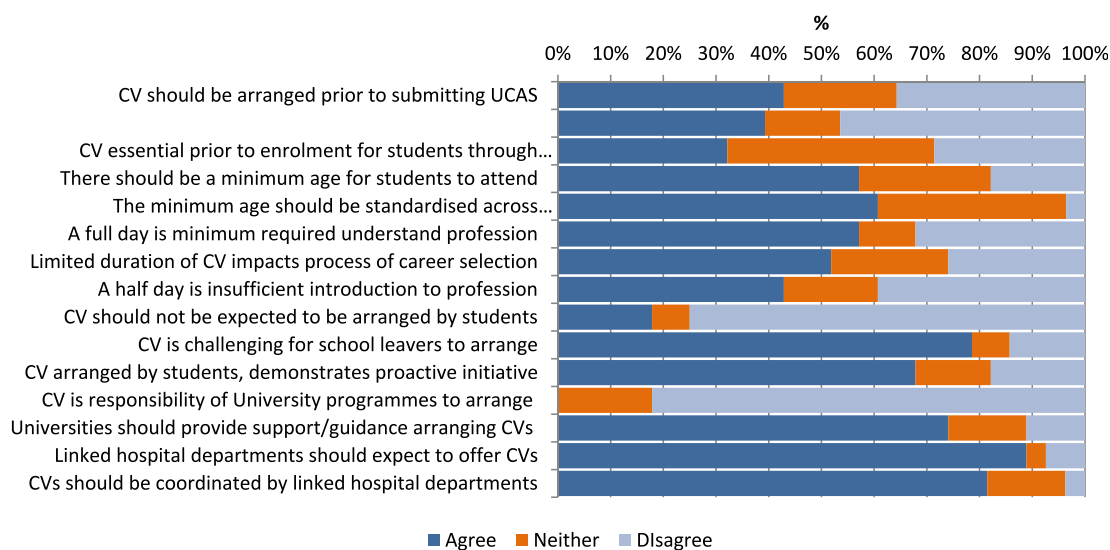


Figure 5. Operational and practical aspects of clinical visits (CV). Key: UCAS – Universities and Colleges Admissions Service.

“Clinical visits were becoming tortuous for many prospective students to organise pre-Covid, with some Trusts requiring rigorous clearances to have been undertaken before a prospective student was allowed to visit”.

“It allows differentiation of candidates serious about radiography if they have made the effort to pursue a visit”.

While no respondent believed that it was the responsibility of the HEI to organise the clinical visits, nearly three quarters felt that the university should provide support and guidance alongside that provided by careers advisors. Nearly 90% believed that all linked clinical sites should participate in offering clinical visits, with the majority (80%) indicating that the type and duration of the clinical visit was recorded using a proforma (Fig. 6). In 55% of cases, clinical

department staff indicated on this proforma the suitability of the candidate for the profession, and in the majority of cases (65%) these proformas informed the admissions decision. This was not supported by all respondents: “I would be concerned about applicants being pre-judged e.g. an introverted applicant being quiet and this being interpreted as dis-engagement. This may then feed into the recruitment process and the interview”.

In Fig. 7, respondents were asked to rank the potential components of a clinical visit from most important<sup>1</sup> to least important.<sup>9</sup> The most useful activities were believed to be interacting with students who were on placement, observing a range of professional activities and modalities, and the opportunity for a one-to-one discussion with a health professional. Table 3 (Supplementary Materials) outlines the qualitative themes emerging from the free text comments related to visit policies.

### Recording & Assessing Clinical Visits

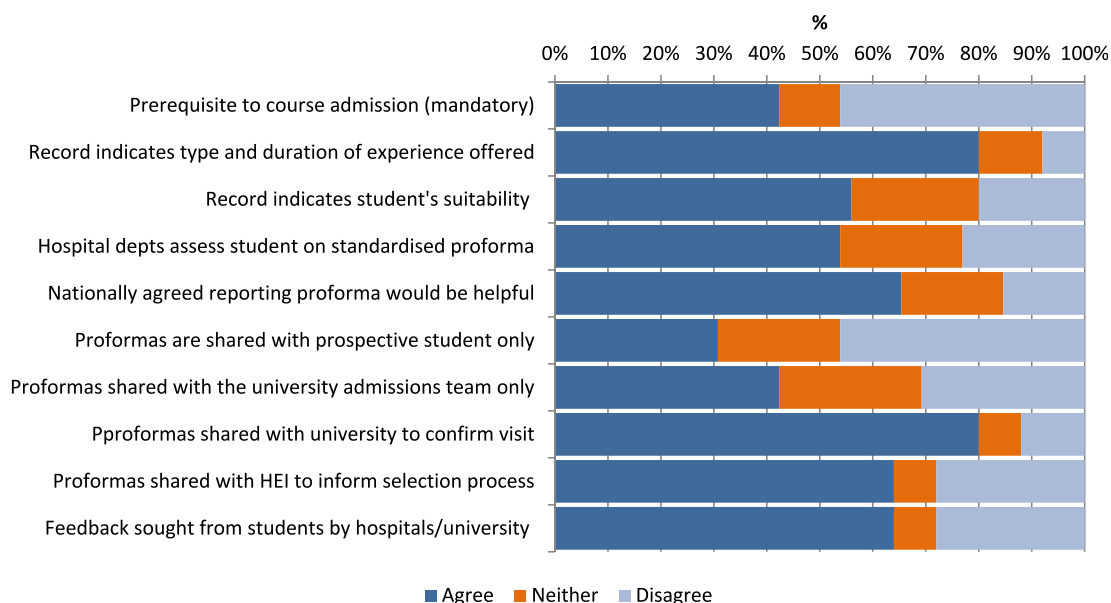


Figure 6. Practices related to recording and assessing clinical visits.

### Importance of Activities Related to Clinical Visit

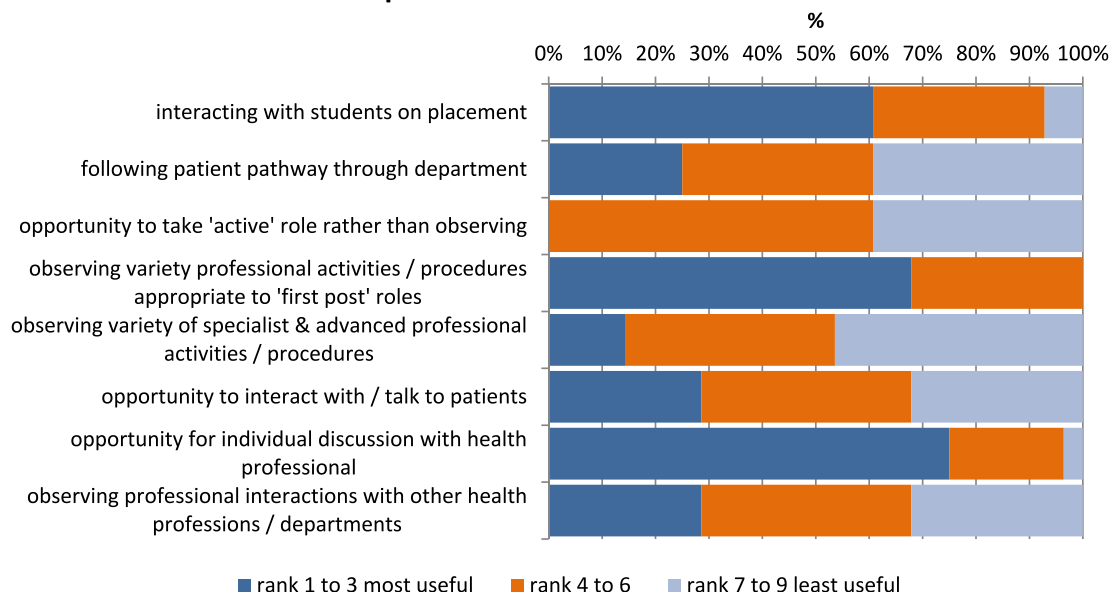


Figure 7. Most important activities related to a clinical visit. Dark blue indicates the activities that respondents thought were most useful within a clinical visit. (For interpretation of the references to color in this figure legend, the reader is referred to the Web version of this article.)

Standardisation of clinical visits was highly variable (71%) in terms of quality and content leading to an inequitable student experience (Fig. 8): “... there was considerable variation in what was offered from a quick look around to 2–3 days”. Respondents highlighted the need for minimum requirements for clinical visits. While there was disagreement related to whether national standards were necessary, 59% suggested that the professional bodies may have a role in coordinating a move towards national guidance.

While the majority of radiography programmes required a clinical visit, none of the ODP programmes had a clinical visit policy. Since the advent of the Covid-19 pandemic, all

programmes had suspended clinical visits and alternatives were explored (Fig. 9). Most respondents (65%) stated that relevant ‘people facing’ work was suitable preparation, though only 30% felt that university open days were sufficient preparation for applicants. While 61% had resources available for sign-posting applicants, only 22% agreed that the clinical visit is unnecessary if suitable videos and online resources were available. In the light of Covid-19 and with improved resources, approximately half of respondents agreed that in the longer-term clinical visits will become obsolete, yet many had their doubts about the alternatives:

### Standardisation of Clinical Visits

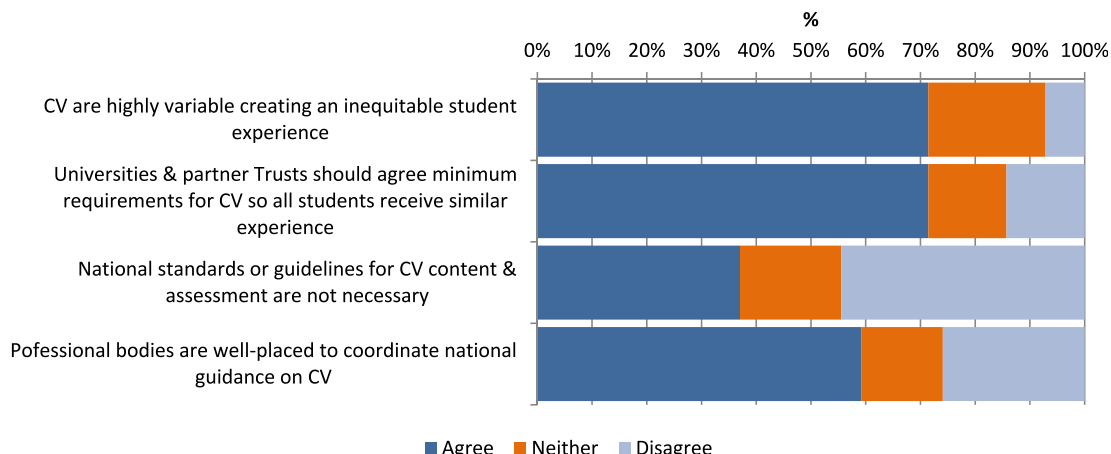


Figure 8. Standardisation of clinical visits (CV) and the potential role for national guidance.

### Alternatives to Clinical Visits

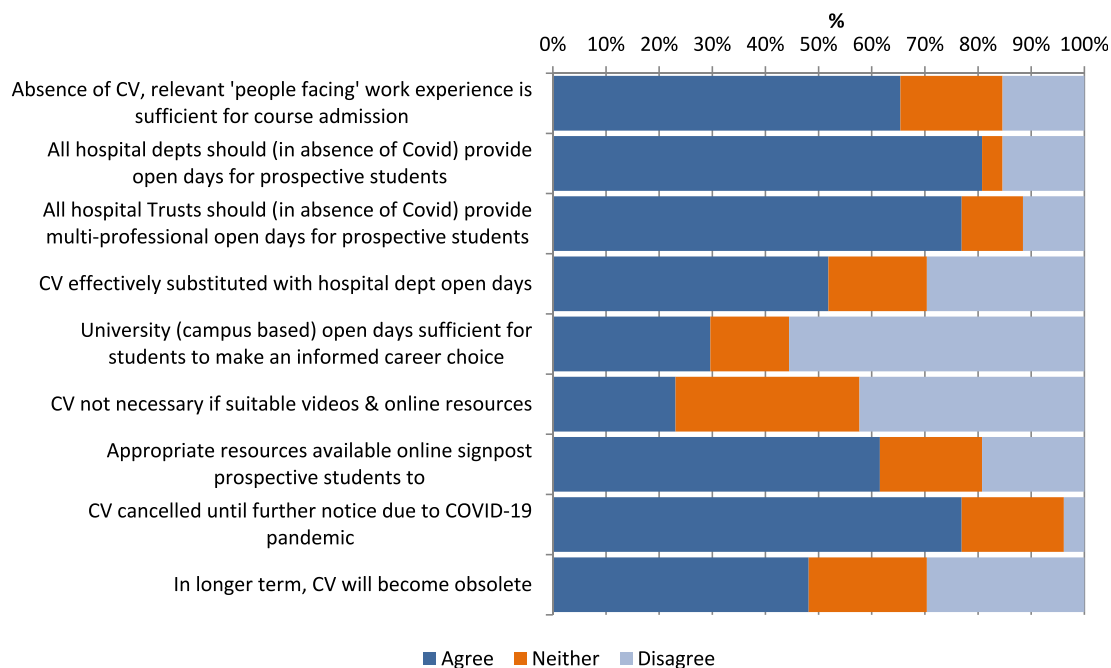


Figure 9. Respondent views of the alternatives to clinical visits (CV).

*“I think the most important aspect of a clinical visit is that the sights, sounds (and often smells!) of a clinical department can be experienced first-hand; this cannot be realistically substituted by any other option”.*

In Fig. 10 respondents were invited to rank several alternatives to clinical visits from most useful<sup>1</sup> to least useful<sup>9</sup> in informing the prospective student about the profession. Hospital department open days, university open days with simulated practice, and documentary style 'a day in the life of' videos were felt to be the most useful alternatives to clinical visits. Other online and virtual reality resources were not found to be of value. The free text responses related to clinical visit alternatives and recommendations are captured in [Supplementary Materials Tables 4 and 5](#).

In response to the unprecedented disruption to the delivery of clinical visits during the Covid-19 pandemic, academic staff has

been responsive and proactive in creating 'workarounds' such as sending out packs of resources and changing the emphasis of interview questions. Most plan to revert to clinical visits if they can:

*“The clinical visits help with retention as students knew what they were getting in to, which was particularly important for the good proportion of our students that come onto the course via clearing. As such we would very much like to return to having the visit as a condition of offer”.*

*“Clinical visits have only ever been encouraged but not required. This will be unchanged, but it is recognised visits may be more difficult to arrange moving forward under current circumstances”.*

However, some respondents cautioned against making hurried decisions, needing more time to be able to assess the potential impact of the withdrawal of visits:

### Ranking of Alternatives to Clinical Visits

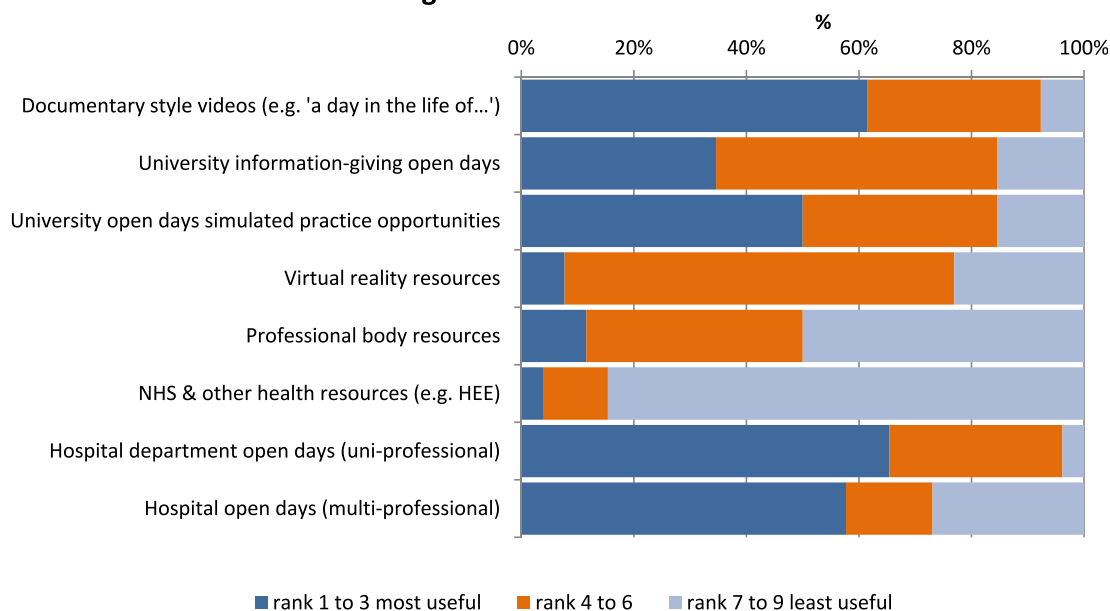


Figure 10. Ranking of alternatives to clinical visits.

*"I think maybe the true picture regarding the usefulness of clinical visits is likely to be found at this time next year when we have had a chance to review recruitment rates and the first semester performance/ first clinical experience of the new students".*

*"It's difficult to say until we know what the 'new normal' will be. We will be guided by the clinical departments ... We are very mindful of the workload implications for departments hosting visitors so our main concern is that any visits do not interfere with the regular placement procedures".*

*"We have not insisted on clinical visits for clearing applicants and most have performed very well on the programme. I see more of an issue with general resilience, especially in younger applicants, and so perhaps the clinical visit is an opportunity for them to see the reality of working in the health service".*

### Discussion

This study presents findings from a national survey of academics engaged in recruitment activities associated with diagnostic and therapeutic radiography and operating department practice (ODP). There are a number of limitations of this study that need to be highlighted including a low response rate, with no responses received from universities in Northern Ireland or Scotland. The findings therefore represent the views of academics working within the English and Welsh higher education systems. Data collection was impeded by heavy academic workloads of potential participants during the early phase of the pandemic,<sup>17,19,22</sup> nevertheless 34 responses were retrieved from 18 Higher Education Institutions (HEI) across England and Wales, representing 37.7% of eligible UK universities. All three professional groups and a range of academic roles (course lead, admissions tutor, clinical co-ordinator, professional lead) were represented, however sub-dividing their responses yields very small numbers which potentially compromise the results. Where separate results for the professional groups have been provided, caution needs to be applied regarding the response sizes. The perspectives of clinical colleagues would be very valuable to

compare to those of academic staff, however it was not appropriate to distribute to clinical staff as 'non-Covid' research was suspended within the UK National Health Service at the time of the survey.

The survey yielded extensive information related to the role, format and perceived value of pre-admission clinical visits (work experience). Prior to the Covid-19 pandemic, 65% of respondents indicated that their programmes had a clinical visit policy. Most therapeutic radiography programmes required a clinical visit as part of the admissions process, in line with professional guidance.<sup>2</sup> Diagnostic radiography programmes tended to 'highly recommend' a clinical visit; none of the ODP programmes incorporated a clinical visit into the admissions process. The latter reflects the challenges of gaining access to operating theatres, particularly for those applicants who were under 18 years of age.<sup>23</sup> Most respondents agreed that there should be a minimum age for students to attend a clinical visit, standardised across healthcare professions. The lack of prior exposure to the operating theatre environment has been linked to high first year attrition<sup>6,7</sup>; the withdrawal of radiography clinical visits due to Covid-19 pandemic restrictions potentially poses similar concerns for the radiography professions moving forwards.

More than 70% of respondents strongly agreed that clinical visits play a vital role in confirming career choices, reassuring students they have made the right career choice, and converting initial interest to applications. The vital role in confirming rather than influencing career choices was also strongly voiced by students in two previous studies<sup>3,5</sup>. Also concurring with these previous student studies<sup>3,5</sup>, the most useful components of a clinical visit were the opportunity to interact with students who were on placement at the time of the visit, observing a range of professional activities and modalities, and the opportunity for a one-to-one discussion with a health professional.

However, clinical visits were not without their challenges even pre-pandemic. The majority of HEIs were responding to planned increases in cohort sizes; as student numbers increased this put more pressure on the already limited capacity for placement sites to deliver individual clinical visits. Several respondents had noted that work was already underway pre-pandemic to review the process and source alternatives, particularly for students entering during



the clearing phase. While a clinical visit is perhaps the most vital for students who are switching career choices at this late stage, the limited window of time between offer and enrolment is prohibitive. Responses in this survey were therefore equivocal regarding the need for a clinical visit for students coming through clearing.

While most academics agreed that clinical visits should be arranged prior to submitting university applications, the recommended duration of visits varied, with 58% stating a full day and 42% a half day. Student perspectives disagree, describing their half-day visits as 'rushed' and noting that at least a full day was required for them to experience the profession.<sup>5</sup> Standardisation of clinical visits between clinical sites was noted to be poor; 71% noting high variability in terms of quality and content leading to an inequitable student experience. The majority recognised that arranging a clinical visit is challenging, particularly for school leavers, though some noted that this demonstrates applicant proactivity. Students, in contrast, described the process of organizing a visit as 'long and arduous', 'overwhelming' and potentially 'unjust'.<sup>5</sup> Regardless of this mismatch in student and academic perceptions, the lack of standardisation of visits, geographical variability and challenges in securing visits all present potential inequities.<sup>1,3,5</sup> The majority (80%) of those mandating/recommending clinical visits employed a proforma to record visit type and duration, with 55% providing an indication of suitability for the profession. These proformas were shared with the university to confirm the clinical visit or to inform the admissions decision, introducing an additional level of subjectivity into the admissions process. For prospective students who were applying to more than one university, the variation in recording of clinical visits between different institutions potentially adds further uncertainty to the admissions process.

The Covid-19 pandemic had an unprecedented impact across the UK National Health Service (NHS) and healthcare education. For all participating institutions, access to clinical visits was withdrawn early in 2021. The resultant adaptations were far reaching and, in many instances, made in a reactive environment.<sup>17</sup> New ways of facilitating prospective student engagement elicited a movement toward clinical visit alternatives including online resources and videos and virtual reality alternatives<sup>16,17</sup> and more recently a move to simulated clinical activities as part of on-campus open days. These alternatives to clinical visits are a safe option amidst the pandemic and a sustainable, cost-effective method for the future. However, they must capture the dynamic and patient-centred nature of practice to accurately inform career choices; some online and virtual reality resources were not found to be of value in this regard.

Discussion surrounding the role of clinical visits in the post pandemic era is an ongoing process, and whilst academic staff have been proactive in providing alternative workarounds, nearly all respondents believed that they would return to their previous clinical visit policy 'post Covid-19'. However, acknowledging the improvements in alternative resources, approximately half of respondents agreed that in the longer-term clinical visits will become obsolete. The role of university open days may need to change to capture the student, clinical staff and patient voice with opportunities for prospective students to engage in 1:1 discussion. Once pandemic restrictions are relaxed, group student visits to clinical sites may be more easily accommodated than hosting individual visits, either during the admissions process or within first 3–4 weeks of the programme commencement where pre-admission visits are not offered.<sup>6</sup> Of greater value may be a more co-ordinated approach to work experience as a part of the school portfolio which could provide pupils with a range of healthcare experiences prior to them making career selections. It is vitally important to ensure that these

alternative resources, and their impact, are monitored, evaluated and revised within a more controlled and reflective environment as we enter the 'new normal' phase.<sup>24</sup>

In a post-Covid era, academic teams and their respective clinical departments are urged to agree minimum expectations for clinical visits and/or their alternatives; reducing variability will be crucial as NHS healthcare providers become more integrated with the establishment of regional networks.<sup>25,26</sup> While conflicting views emerged regarding the need for national standards, more than half of respondents suggested that the professional bodies may have a role in coordinating and facilitating national guidance. High priority for this work is to ensure that all prospective students, regardless of their background, their selected profession and university, have fair, equitable and easily available access to high quality resources to support their career decision-making.<sup>1</sup> The creation of a standardised visit record form may help in guiding visit content, alongside the creation of resources hosted on nationally accessible platforms. Of critical importance in the decision to re-instate clinical visits, will be evidence of any impact on retention of students registered within the two most recent intakes. This will require a close inspection of student attrition data and 'reasons for leaving' across all eligible institutions, as collated annually by the College of Radiographers<sup>27</sup> to ascertain whether a misinformed career selection ('wrong career choice') is a significant push factor in decisions to leave.

## Conclusion

Academic perspectives of the role and value of pre-admission clinical visits (work experience) offered prior to the Covid-19 pandemic highlighted the important role in confirming rather than inspiring career choices. Wide variation in the requirements for clinical visits across HEIs and professions is evident; many academics would welcome an opportunity to better standardise placement visits to improve equity and student experience. When clinical visits were suspended due to the Covid pandemic, academics were innovative in creating alternatives including simulated visits, online sessions and virtual reality. Simulated visits are a safe option amidst the pandemic and a sustainable, cost-effective method for the future, but they must capture the dynamic and patient-centred nature of practice to accurately inform career choices. The professional bodies, working alongside universities and clinical centres, may have a role in coordinating a move towards national guidance for clinical visits; these need to be informed by closer inspection of student attrition data.

## Conflict of interest statement

None.

## Acknowledgements

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## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.radi.2022.08.003>.

## References

1. *The future of healthcare work experience Discovery Report*. Available at, <https://www.hee.nhs.uk/our-work/work-experience-pre-employment-activity>; 2021.
2. Colyer H. *Improving retention of the radiotherapy workforce – the role of practice placements in student attrition from pre-registration programmes in England*. Full Report, <https://www.sor.org/learning-advice/professional-body-guidance-and-publications/documents-and-publications/policy-guidance-document-library/improving-retention-of-the-radiotherapy-workforce>; 2013.
3. Bridge P, Callender J, Edgerley J, Gordon C. The value of pre-application clinical department visits in radiotherapy: a qualitative evaluation. *J Radiother Pract* 2019;**18**:110–5. <https://doi.org/10.1017/S1460396918000717>.
4. Health Education England. *Reducing pre-registration attrition and improving retention (RePAIR) report*. <https://www.hee.nhs.uk/our-work/reducing-pre-registration-attrition-improving-retention>; 2018.
5. Ali N, Saunders J, Ibbotson R, Shute E, Burke G, Cadman V. The changing role of pre-admission work experience (clinical visits) in Therapeutic Radiography, Diagnostic Radiography and Operating Department Practice: student perspectives (Part 1). *Radiography* 2022;**28**:S77–83.
6. Hardcastle T. First clinical placement: the student ODP experience. *J Oper Dep Pract* 2014;**2**(1):42–7. <https://doi.org/10.12968/jodp.2014.2.1.42>.
7. Hinton J, Jinks A. Operating department practitioner education: a retrospective audit of factors associated with attrition. *J Adv Perioperat Care* 2009;**4**(1):43–9.
8. College of Radiographers. *Approval and accreditation board*. Annual Report 1st September 2018 – 31st August 2019 Published July 2020, <https://www.collegeofradiographers.ac.uk/about-the-college/document-library/documents-and-reports>.
9. McAnulla SJ, Ball SE, Knapp KM. Understanding student radiographer attrition: risk factors and strategies. *Radiography* 2020;**26**(3):198–204. <https://doi.org/10.1016/j.radi.2019.12.001>.
10. Mc Fadden S, Flood T, Shepherd P, Gilleece T. Impact of COVID-19 on service delivery in radiology and radiotherapy. *Radiography* 2022. <https://doi.org/10.1016/j.radi.2022.03.009>. article in press.
11. Sim WY, Chen RC, Aw LP, Tan CC, Heng AL, Ooi CC. How to safely and sustainably reorganise a large general radiography service facing the COVID-19 pandemic. *Radiography* 2020;**26**(4):E303–11. <https://doi.org/10.1016/j.radi.2020.05.001>.
12. Akudjedu TN, Mishio NA, Elshami W, Culp MP, Lawal O, Botwe BO, et al. The global impact of the COVID-19 pandemic on clinical radiography practice: a systematic literature review and recommendations for future services planning. *Radiography* 2021;**27**(4):1219–26. <https://doi.org/10.1016/j.radi.2021.07.004>.
13. Akudjedu TN, Lawal O, Sharma M, Elliott J, Stewart S, Gilleece T, et al. Impact of the COVID-19 pandemic on radiography practice: findings from a UK radiography workforce survey. *Brit J Radiol Open* 2020;**2**:20200023. <https://doi.org/10.1259/bjro.20200023>.
14. Tay YX, Cai S, Chow HC, Lai C. The needs and concerns of clinical educators in radiography education in the face of COVID-19 pandemic. *J Med Imag Radiat Sci* 2021;**52**(1):3–8. <https://doi.org/10.1016/j.jmir.2020.10.004>.
15. Hayre CM, Kilgour A. *Diagnostic radiography education amidst the COVID-19 pandemic: current and future use of virtual reality (VR)* *Journal of Medical Imaging and Radiation Sciences* 2021;**52**:2021S20–3. <https://doi.org/10.1016/j.jmir.2021.09.009>.
16. Currie GM, Hewis J, Nelson T, Chandler A, Nabasenja C, Spuur K, et al. COVID-19 impact on undergraduate teaching: medical radiation science teaching team experience. *J Med Imag Radiat Sci* 2020;**51**(4):518–27. <https://doi.org/10.1016/j.jmir.2020.09.002>.
17. Teo LW, Pang T, Ong YJ, Lai C. Coping with COVID-19: perspectives of student radiographers. *J Med Imag Radiat Sci* 2020;**51**(3):358–60. <https://doi.org/10.1016/j.jmir.2020.05.004>.
18. Tay YX, Sng LH, Chow HC, Zainuldin MR. Clinical placements for undergraduate diagnostic radiography students amidst the COVID-19 pandemic in Singapore: preparation, challenges and strategies for safe resumption. *J Med Imag Radiat Sci* 2020;**51**(4):560–6. <https://doi.org/10.1016/j.jmir.2020.08.012>.
19. McConnell J, McFadden S, Floyd M, Elshami W, Leishman L, Eckloff K, et al. Late non-physiological impacts of Covid-19 on radiography education. *Radiography* 2021;**27**(3):987–8. <https://doi.org/10.1016/j.radi.2021.04.006>.
20. Accessed 05.09.21 Qualtrics software. Version [2021]. Copyright © [2021] Qualtrics. Qualtrics and all other Qualtrics product or service names are registered trademarks or trademarks of Qualtrics, Provo, UT, USA <https://www.qualtrics.com>.
21. Braun V, Clarke V. What can “thematic analysis” offer health and wellbeing researchers? *Int J Qual Stud Health Well-Being* 2014;**9**:26152. <https://doi.org/10.3402/qhw.v9.26152>. Published 2014 Oct 16.
22. Strudwick RM, Cushen-Brewster N, Doolan C, Driscoll-Evans P. An evaluation of the experiences of academics and practice educators who supported radiography students working on the temporary HCPC register during the COVID-19 pandemic. *Radiography* 2021;**27**(4):1179–84. <https://doi.org/10.1016/j.radi.2021.07.001>.
23. Association of Perioperative Practice. *Visitors and external contractors to the perioperative setting*. <https://www.afpp.org.uk/careers/Standards-Guidance>; 2017.
24. Currie GM. A lens on the post-COVID-19 “New Normal” for Imaging Departments. *J Med Imag Radiat Sci* 2020;**51**(3):361–3. <https://doi.org/10.1016/j.jmir.2020.06.004>.
25. NHS England and NHS Improvement. *Transforming imaging services in England: a national strategy for imaging networks*. NHS Improvement publication code: CG 51/19, <https://www.england.nhs.uk/transforming-imaging-services-in-england>; November 2019.
26. NHS England and NHS Improvement. *Diagnostic imaging network workforce guidance*. NHS England » [Diagnostic imaging network workforce guidance](https://www.nhs.uk/healthcare-professionals/working-in-the-nhs/working-in-the-nhs-forces/working-in-the-nhs-forces-2022); April 2022.
27. College of Radiographers. *Approval and Accreditation Board*. Annual Report 1st September 2019 – 31st August 2020 Published Feb 2022 v2-0, <https://www.collegeofradiographers.ac.uk/getmedia/43cd11db-235e-4477-b608-0996a3be324e/CoR-AAB-Annual-Report-2019-2020-v2-0>.