



# The imaging support workforce: Stakeholder perceptions of role, impact and career progression

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## ABSTRACT

**Introduction:** Demand for imaging continues to rise, placing significant challenges on an already-stretched radiography workforce. Enhancing the capability and capacity of the Support Worker and Assistant Practitioner (SWAP) workforce is a potential solution, yet little evidence exists about their deployment. This study explored imaging department stakeholder perceptions in NHS institutions across England regarding SWAP roles and responsibilities, their contribution to service provision, and potential for career progression.

**Methods:** This qualitative study is the final phase of a multi-stage explanatory mixed methods study investigating the utilisation of the imaging SWAP workforce. A case study approach included semi-structured interviews (service/modality leads) and focus groups (SWAPs) across nine NHS Trusts. Sampling was evidence-based and purposive, aiming for representative diversity in SWAP utilisation levels, geographical spread and department size. Thematic analysis was conducted within and across cases.

**Results:** The SWAP workforce was consistently recognised as crucial for maintaining operational efficiency and enhancing patient care. Four overarching themes emerged: (1) operational efficiency and service impact, where SWAPs were critical in optimising workflows; (2) roles and responsibilities, recognising both role clarity and ambiguity leading to role strain; (3) career progression, support, and training, highlighting opportunities yet significant barriers to advancement; and (4) workforce dynamics and job satisfaction, where high job satisfaction contrasted with challenges in role stability and professional recognition.

**Conclusion:** SWAPs significantly enhance imaging service delivery. Despite their substantial contributions, SWAPs face challenges in role clarity and career progression that can impact on inherently high job satisfaction.

**Implications for practice:** A high level of variation in SWAP deployment is confirmed; a structured framework is required to guide implementation of effective deployment models. Moving from SWAP rotational models to static modality deployment may enhance consistency, team dynamics and job satisfaction.

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## Introduction

Imaging services play a pivotal role across primary and secondary care with diagnostics influencing treatment decisions across virtually all medical specialties and stages of patient care. Demands on these services are increasing,<sup>1</sup> are compounded by significant radiographer and radiologist shortages<sup>2,3</sup> and have led to unsustainable NHS spending to mitigate service gaps.<sup>2</sup>

In a reaction to workforce shortages, three prominent national reports<sup>4–6</sup> highlighted the necessity to develop the capacity and capability of the imaging support workforce. However, despite the urgency expressed in these reports, there is little published evidence of progress. This stagnation mirrors continued under-utilisation of support workers across the NHS with a 2024 analysis<sup>7</sup> of the Cavendish Review,<sup>8</sup> indicating that healthcare assistants and support workers remain under-used and under-valued.

The UK imaging support workforce is organised into a tiered model corresponding to Bands 2 to 4 in the NHS's 'Agenda for Change' pay structure. A census of imaging services showed that

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support workers and assistant practitioners (SWAPs) comprised approximately one fifth of the radiography workforce in England (Median 22.27 %, IQR 14.9–29.1).<sup>9</sup> The (supervised) roles of SWAPs include patient-facing tasks, including image acquisition at Band 4,<sup>10–12</sup> that were traditionally limited to registered radiographers. This paradigm shift in skill-mix was, in part, intended to free up radiographers to undertake more complex procedures, yet there is limited evidence on the extent to which this aim has been achieved.<sup>13</sup> Furthermore, recent studies<sup>9,14</sup> highlight that the deployment and effectiveness of the imaging SWAP workforce, and indeed Allied Health Professions (AHPs) more widely, remain poorly defined.

This study reports on the penultimate workstream within an explanatory, mixed methods research study<sup>15</sup> investigating the deployment and contribution of the SWAP workforce to diagnostic imaging activity across NHS institutions in England. It explores stakeholder perceptions of SWAP roles, their impact on imaging services and opportunities for career progression.

## Methods

This workstream employed a case study approach<sup>16,17</sup> involving a series of nine individual cases, each representing the imaging service within an NHS Trust in England. This approach enabled a multi-dimensional examination of the complexities in each case. It then allowed for a collective understanding across cases of how the SWAP workforce is employed in different settings and the contextual factors influencing the process. Case study sites were selected to ensure that findings would, as far as possible, be applicable to radiography services across England.

### Sampling

A purposive sampling approach was used to select the case study sites. Drawing on data from previous workstreams<sup>18,19</sup> which categorised SWAP proportions in imaging services, we identified three 'high' (approximately 30 % of staff), three 'medium' (approximately 20 % of staff) and three 'low' (approximately 10 % of staff) utilisation sites. Sites were also selected to represent different geographical regions, settings and organisational types.

### Data collection

At least two research team members made single day visits to each of the case study sites to collect qualitative data from a selection of service leads, modality leads, support workers and assistant practitioners. The involvement of researchers both with and without a diagnostic imaging background at each site provided both an emic (subjective/insider) and etic (objective/outsider) perspective. This approach facilitated complementary insights to assist interpretation and challenge assumptions and preconceptions, adding to the richness of the data and confidence in the findings.<sup>20</sup> Notably, the etic perspective was provided by a researcher with a therapeutic radiography background who despite their 'outsider' status, possessed insight into the realm of radiographic support workers. Researchers recorded field notes during the visits, capturing their observations and impressions which fed into the analytic process.

Semi-structured individual interviews were undertaken with service managers and modality leads. Separate focus groups were undertaken with both assistant practitioners and support workers. Topic guides for both are presented in [boxes 1 and 2](#) respectively.

All interviews and focus groups were digitally recorded and transcribed using a commercial transcription service. Transcripts

### Box 1

Topic guide for interviews with service managers/modality leads

#### Assess and explore:

- Strategic approaches to recruitment and deployment of the SWAP workforce
- Operational issues
- Contribution of the SWAP workforce across different modalities
- Training, assessment and supervision of the SWAP workforce
- Delegation of tasks and roles
- Barriers and facilitators to SWAP deployment across their imaging services
- Perspectives on optimal skills mix and planning decisions
- Implications for safety and quality of service provision
- Perspectives on future SWAP roles and deployment

### Box 2

Topic guide for focus groups with support workers/assistant practitioners

#### Assess and explore:

- Perceptions of their role(s) within the imaging team
- Recruitment as a support worker
- Comparison of roles across imaging teams including scope of practice, autonomy in decision making, delegation, supervision
- Training undertaken and perceived training needs
- Opportunities for career progression including barriers and facilitators to this
- Perspectives on the current and future role of the SWAPs

were checked by the research team and anonymised prior to analysis.

### Data analysis

Data analysis comprised a two-stage process consisting of within-case analysis using thematic analysis as outlined by Braun and Clarke<sup>21</sup> followed by a cross-case analysis, applying a framework approach.<sup>22</sup> Quirkos™ software was used to organise and manage the process.<sup>23</sup> Data was independently coded (by at least 2 of the research team) to enhance rigour. Open codes were grouped into main themes. Regular team meetings provided opportunity for the research team to offer critical reflections on the analytic process and how this informed the development of themes.

### Findings

[Table 1](#) presents a summary of each of the sites visited. A total of 41 individual interviews and 15 focus groups ( $n_{\text{total}} = 108$ ) were undertaken. Four overarching themes were identified. These are presented in [Table 2](#) along with the codes associated with them. [Table 3](#) presents a cross-case analysis that summarises the open codes evident for each site and highlights similarities and differences across sites.

**Table 1**

Summary of sites visited. H: High SWAP utilisation. M: Medium SWAP utilisation. L: Low SWAP utilisation.

Site	Setting	Participants
1 (H)	Medium size service, coastal. 1 main site and further community sites	4 interviews 2 focus groups (SWs, n = 4, Trainee APs n = 5)
2 (H)	Large size service, coastal. 1 main site and a further satellite site	7 interviews 3 focus groups (SWs, n = 8, APs/apprentice radiographers, n = 2)
3 (H)	Medium sized service, city/rural. 1 main site and further community sites	5 interviews 2 focus groups (SWs, n = 7, APs n = 5)
4 (M)	Small sized service, city. 1 main site and further community sites	4 interviews 1 focus group (SWs, n = 7)
5 (M)	Large sized service, city. 2 main sites and 2 community sites	7 interviews including 2 with an individual AP and SW
6 (M)	Large sized service, city. 2 main sites and a further community site	2 interviews 2 focus groups (SWs, n = 5, APs/trainee APs, n = 7)
7 (L)	Large sized service, city. 1 main site and 4 satellite sites	5 interviews 2 focus groups (SWs, n = 10, APs, n = 6)
8 (L)	Medium sized service, coastal. 1 main site and 3 satellite sites	3 interviews 2 focus groups (SWs, n = 2, APs, n = 2)
9 (L)	Medium sized service, coastal/rural. 1 main site.	4 interviews 1 focus group (SWs, n = 3)

**Table 2**

Main themes and associated codes.

Themes	Operational efficiency and service impact	Roles and responsibilities	Career progression, support and training	Workforce dynamics and job satisfaction
Codes	Workflow optimisation Operational dependency Enhanced patient care and interaction Teamwork and collaboration Challenges and constraints	Role clarity Role creep/role ambiguity Role adaptability and flexibility Role autonomy Rotational versus static deployment Supervision and management issues	Career aspirations Career stagnation and lack of progression Lack of training opportunities Organisational and support challenges Positive experiences and value Grow your own	Love my job Feeling undervalued Positive cultural dynamics Impact of static vs rotational deployment SWAP retention and stability Role strain

**Table 3**

Cross case analysis. H: High SWAP utilisation. M: Medium SWAP utilisation. L: Low SWAP utilisation. Ticks represent evidence of code.

Theme	Main codes	1 (H)	2 (H)	3 (H)	4 (M)	5 (M)	6 (M)	7 (L)	8 (L)	9 (L)
Operational efficiency and service impact	Workflow optimisation	✓	✓	✓	✓	✓	✓		✓	✓
	Operational dependency	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Enhanced patient care and interaction	✓	✓	✓	✓	✓		✓	✓	✓
	Teamwork and collaboration	✓			✓			✓		
	Challenges and constraints	✓	✓	✓	✓					✓
Roles and responsibilities	Role clarity	✓	✓	✓		✓		✓		
	Role creep/role ambiguity				✓		✓		✓	
	Role adaptability and flexibility	✓	✓			✓		✓	✓	✓
	Role autonomy	✓				✓		✓	✓	
	Rotational versus static deployment	✓	✓	✓	✓	✓		✓	✓	
Career progression, support and training	Supervision and management issues	✓	✓		✓				✓	✓
	Career aspirations		✓	✓			✓		✓	
	Career stagnation and lack of progression	✓			✓	✓		✓	✓	✓
	Lack of training opportunities	✓		✓	✓	✓	✓	✓	✓	✓
	Organisational and support challenges					✓	✓	✓	✓	✓
Workforce dynamics and job satisfaction	Positive experiences and value	✓	✓	✓		✓				
	Grow your own	✓	✓	✓	✓				✓	
	Love my job	✓	✓	✓	✓	✓	✓		✓	✓
	Feeling undervalued				✓		✓	✓	✓	
	Positive cultural dynamics	✓	✓	✓		✓				✓
	Impact of static vs rotational deployment	✓	✓		✓	✓				
	SWAP retention and stability	✓		✓	✓			✓		✓
	Role strain						✓	✓	✓	✓

**Theme 1: operational efficiency and service impact**

SWAPs were universally perceived as integral to optimising workflow and critical to maintaining and enhancing operational efficiency. Almost all sites highlighted how dependent they were on the SWAP workforce:

*“Without them there wouldn’t be a service at all ...” (Site 7)*

*“There’s an awful lot of panic ... when a support worker has gone off sick, you never hear it about a radiographer’s gone off sick and what am I going to do? ... they are the kind of engine room of the department.” (Site 9)*

*“Massive difference, because when they’re not here or when we’re struggling, if we’re not fully staffed with them you can tell the difference of the flow, the team just doesn’t work.” (Site 1)*

The impact of band 2 and 3 SWs was particularly noted:

*"If it's CT or MRI and they don't have support workers [available], they will actually cancel lists ... it does have an impact." (Site 9)*

*"She's [SW] pretty much held us together for the last few months. We've been so short staffed. There's been some weeks when there's just been me and her ... she is an absolute star. She's been like a mini radiographer really." (Site 8)*

Band 4 APs were recognised as enhancing service capability through performing more complex tasks under supervision, contributing significantly to departments' functionality and expanding the scope of services offered. In a similar way to the 'mini radiographer' mentioned in the previous quotation, APs described themselves in terms such as "two thirds of a radiographer" to depict their unique role.

A corollary of the dependency upon SWAPs was the challenge experienced by some sites related to high staff turnover in the SWAP workforce which impacted on service efficiency and patient care:

*"We did have a massive issue with recruitment and retention, we had quite a big turnover and this was to do with the fact that they were working in all areas ..." (Site 1)*

*"The support worker is ... quite hard to recruit into and it's quite hard to retain." (Site 7)*

High utilisation sites tended to manage these impacts better, often due to more structured team dynamics and role distribution. In low utilisation sites the impact of staffing shortages was more pronounced, affecting workflow efficiency and, potentially, quality of care.

There was a strong emphasis on the importance of teamwork and the impact of SWAPs on enhanced patient interactions:

*"They are very much a part of the team and very much relied on, particularly when we're short staffed ... They just work like any other radiographer." (Site 5)*

*"They're really valued members of the team, they do so much great work. And they're amazing with the patients because they're really embedded into those areas." (Site 7)*

*"They could almost be radiographers they're so experienced, they're very good with patient care, it does make things a lot more efficient ... they're very experienced, very helpful, they speed things up." (Site 2)*

Such contribution was even recognised by patients/service users, For example:

*"We had to do an ultrasound on a radiologist from a different trust, and when he came in, I was chaperoning him. He turned around and asked my colleague, the consultant, do you always have chaperones here? They said, yeah, they're a part of the team. He turned around and said, we wish we had it in our trust, we have to do everything, and we spend so much time doing that." (Site 5)*

## Theme 2: roles and responsibilities

Across the sites, SWAP roles appeared typically to be well-delineated with defined clinical and administrative responsibilities across all modalities, although there was a lack of consistent role definitions and role titles. Support worker job titles

varied with (interchangeable) reference to 'Support Workers', 'Healthcare Assistants', 'Radiology Assistants' and 'Radiology Department Assistants' (RDAs). In addition, a common grade differentiation within cross-sectional imaging was based upon whether SWAP roles included cannulation:

*"The support workers are all band 3s and they're band 3s because they're required to be able to do cannulation so they're all trained in performing that" (Site 3)*

Autonomy within roles clearly contributed to job satisfaction:

*"So I actually enjoy this job role, because of all the things that you learn about, and the people you work with. I also feel like there's a lot of autonomy as well in this job role, because it's down to you what you're meant to be doing, and you should know what's going to go on throughout the day." (Site 7)*

*"I can run a room on my own ... I can use my own initiative to go and check the day list, get the patient in, get the patient changed." (Site 5)*

In those sites where SWAPs had less autonomy there was a clear desire to introduce initiatives to promote it:

*"I think there are a lot of very skilled people in the team and it would be nice to be able to use those skills and be able to give them a little bit more autonomy around how they manage things themselves on a day-to-day basis." (Site 3)*

*"So there are initiatives going on at the moment and I think there's a new course that's being developed to promote these ... APs, to give them a bit more autonomy in their position, and that's something that I think we will have to move towards in the future." (Site 6)*

However, some sites struggled with blurring of role boundaries and role creep. SWAPs described, and modality leads recognised, how unclear role definitions, staffing shortages, banding decisions or operational demands impacted on this and potentially influenced role strain.

*"... but literally when we look at our job description, we do a lot of clinical stuff, and clinical stuff is not band 2 support worker role. Clinical stuff is a band 3 and it's not even on our job description." (Site 1)*

*"I'm getting sick of getting paid band 2 and doing a band 5 job, I don't want getting stressed, that's not what I'm here for." (Site 6)*

*"I do feel they consider me more than they should as a radiographer. I'm not, I'm a band 3 AP ... I don't mind being treated like that, in fact I embrace it ... but it's definitely not what I'm paid to do." (Site 8)*

SWAP deployment varied with some sites rotating staff through different modalities while others preferred static roles. While rotation across modalities (and indeed Trust sites) provided some solutions to staffing challenges it was evident that static deployment enhanced service consistency as well as team dynamics and job satisfaction.

*"There is a huge benefit to both although I think having the static people means you get that continuity so if something is flagged on Monday they will know on Tuesday rather than it being a whole completely new set of people." (Site 3)*

*"Yeah, [they're] working with the anaesthetists or a consultant. They're quite specialised, so a rotational RDA wouldn't be able to come in and just cover that." (Site 3)*

In some sites there was evidence of a clear operational desire to move to more static deployment:

*"I think it would be good to have support workers that worked in a dedicated modality, at the moment they rotate round and the reason behind that is that if they become short then ideally there might be somebody to cover. But actually in reality what happens is we get one of our support workers stolen on a daily basis because there's a shortness somewhere else. So if they were dedicated into a modality then, you know, they would be more invested in that modality, and supportive and build up relationships with the team, and then we could really formalise their training better."* (Site 4)

Management and supervision of SWAPs varied across sites with a minority of sites identifying a central named person or group, while the majority preferred to provide this within modality areas.

*"We don't actually directly line-manage them; they're managed by somebody else in the department. That's a problem."* (Site 3)

*"I'd like to see that the support workers that are working in a modality and managed by modality, simple as that."* (Site 4)

There was little evidence of association between SWAP utilisation levels and perceptions of roles, responsibilities, job satisfaction and stability of the workforce although those with high utilisation tended to feature more well-defined roles. Role creep was evident across sites, but was more pronounced with lower staffing levels in low utilisation sites.

### Theme 3: career progression, support and training

Training for SWs varied across different sites. Several sites had established specific competencies for support workers depending on the scope and the variety of specialties involved. Training approaches ranged from informal supervision to more formalised programs ranging from six weeks to six months. All SW training was conducted 'in-house', although some sites also required completion of the Care Certificate (the agreed set of standards developed jointly by Skills for Care, Health Education England, and Skills for Health that define the knowledge, skills, and behaviours expected of support workers across health and social care sectors). Almost all SWAPs were recruited locally and a number of sites adopted a 'grow your own' philosophy to SWAP progression:

*"We only recruit from support worker roles ... it's very much because we know them, we know who they are, we know what their work ethic is like"* (Site 1)

*"So we have band 2 and band 3 RDAs. Now ultimately all of them are funded for band 3 roles. So my dream scenario here is, I've got fantastic staff and none of them ever leave, they would all be band 3 ... So we start people at band 2 and we've got competencies that they work towards and once they achieve those competencies we re-band them to 3."* (Site 2)

SWAPs and modality leads recognised 'career value' and opportunity, both clearly linked to job satisfaction (theme 4) and underpinning aspirations to progress within the radiography profession:

*"The APs ... are always thanking me for giving them the opportunity to do the job and they are loving it. They still have moments where they have a bit of a wobble about their confidence and their level of ability but the team are really good at supporting them*

*through and yeah they do enjoy it which is why they want to progress to a band 5 at some point."* (Site 3)

Although there were some opportunities for career progression at a local level these were limited by a lack of well-designed, coherent education, training and support packages and largely contingent upon funding. This frustrated both SWAPs and service/modality leads:

*"A few years ago this department promised that there would be two positions available [per year] for apprenticeship, in the last couple of years there's just been one I think. So it's just that little frustration ... what's stopping them? We're all eager to do this ..."* (Site 7)

*"The issue I have as a manager is that if there's an apprenticeship programme, I've got to keep a post open for the time that they're doing that apprenticeship. And say that apprenticeship is ... two years, that's a long time to have a vacancy and not fill it with somebody training ..."* (Site 3)

Nevertheless, there was evidence of initiatives that went some way to promoting progression opportunities, including a 'community of practice' with associated education and training resources for SWs working across multiple sites (site 7), and 'transfer windows' whereby SWAPs were able to broaden their experiences across imaging services by applying for static positions in other modality areas when they became available (site 5).

Ultimately, and despite small pockets of good practice, career stagnation across the SWAP workforce remains a frustrating conundrum:

*"What's frustrating is I've got a lack of education, and the only way to progress ... is that you have to have those qualifications to become a band 4. I've been trying to prove myself over the last few years, because to me it would be nice if there was a senior or a lead support worker [role] ... there just doesn't seem to be scope for that, and that I find a little bit disappointing."* (Site 9)

*"I think historically ... because there's no progression, the particularly competent [SWs] have nowhere to go other than to leave and go to a new role, unfortunately."* (Site 4)

Lack of progression opportunities appeared to be more pronounced in low utilisation sites, attributable either to a lower priority being placed on SWAP utilisation, or more likely a consequence of one site (7) having no funding provision for apprenticeships and another (9) not employing APs.

### Theme 4: workforce dynamics and job satisfaction

It was universally clear that SWAPs loved their job and especially the impact they had on patient experience. The following quote exemplifies this and is reflective of the majority interviewed:

*"Oh, do you know what, I do [enjoy my job] and I'm not just saying that I really love it, I get up every morning and it doesn't bother me coming to work."* (Site 5)

As previously highlighted, SWAPs were well integrated within imaging teams across all sites with positive team dynamics and little/no evidence of a strong hierarchical structure.

*"Everyone's as important as each other. You can't do a job without assistants; assistants can't do it without APs and radiographers ...*

*This has been my home for the last 24 years, this hospital. But we're all equal and there's no 'you're only an assistant'. Everyone works together ..."* (Site 2)

The integration of the SWAP workforce extended to their *identity* within several sites with SWs wearing the same 'scrubs' as radiographers and consultants.

Although job satisfaction was high among SWAPs there was evidence of role strain and perceptions of feeling undervalued in some sites, ultimately leading to issues with retention and stability of the SWAP workforce. Specifically, the contributory factors were predominantly banding/pay discrepancies and the influence of rotational deployment:

*"I think there has been a period where they felt undervalued, not from a department perspective but from a trust [employer] perspective ... But they haven't been rewarded [for cannulation] and ... they've probably become a little bit demoralised."* (Site 4)

*"They were all down banded, regraded down to 2 [from 3], which was awful, because it gave them absolutely nowhere to go. So the ones that were really keen and wanted to progress, they just got stuck at the top of band 2 or they left and went somewhere else, because there was no, very few AP roles. It had a massive impact. It was the worst thing we ever did, ever. It was awful. And that's led to a demoralised and quite cross group of people that don't feel supported."* (Site 8)

There was no association between SWAP utilisation levels and stability of the SWAP workforce. Only geographical location appeared to have an influence on stability of the SWAP workforce with more rural and coastal regions seeing lower staff turnover.

## Discussion

This research has provided the most comprehensive qualitative evaluation to date of stakeholder perceptions of SWAP workforce deployment and its impact on imaging services across England. The findings reinforce those from the preceding workstreams<sup>18,19</sup> in this mixed methods study.<sup>15</sup> They highlight the high dependency of imaging services on the SWAP workforce and that the support workforce in England is managed operationally rather than through strategic planning, for example in relation to decisions on static or rotational deployment. The findings are also largely consistent with other literature exploring the roles of support workers in varying health care settings.<sup>24–29</sup>

SWAPs interviewed in this study frequently expressed a love for their job, particularly the patient facing aspects, yet they also articulated frustration with instances of role creep, feelings of being undervalued and bottlenecks in career progression. This mirrors key findings from other research investigating perceptions of Healthcare Assistants in UK GP practices<sup>24,25</sup> from over a decade ago, a more recent UK survey of physiotherapy assistants/support workers roles and responsibilities<sup>26</sup> and reports<sup>27–29</sup> on Allied Health Assistants perspectives on their roles in Australia. Despite the different health care systems, very similar experiences and viewpoints exist, particularly in relation to a lack of role clarity and inadequate and inconsistent career progression structures that remain long standing and challenging to address. The integration of Support Workers and Assistant Practitioners within the professional body's Education and Career Framework (ECF)<sup>10</sup> is positive, although as indicated in our previous study<sup>19</sup> and established through these findings, the adoption of these roles is yet to be consistently applied. This may reflect perspectives that the ECF is

not viewed as being definitive in relation to the development of career progression for SWAPs but this was not fully explored in this study and further work is warranted. Access to high quality education and supervision is key to ensuring that SWAPs achieve their full potential, enabling them to practice at the higher end of their scope and, in turn, reduce overall workforce expenditure. Some modality leads and SWAPs in this study indicated that current 'in-house' education, training and support packages were of varied quality and not always perceived as being able to fully meet SWAPs educational requirements. Furthermore, access to external provision was largely contingent on funding and therefore not widely accessible. Overall, these issues of inconsistent role clarity and imperfect education and training opportunities impact on SWAP deployment and transferability across imaging services. The perspectives of participants within this study align with the findings of Stewart-Lord et al.<sup>30</sup> and a recent scoping review,<sup>14</sup> indicating that aspirations to progress to become a radiographer remain, for most, out of reach.

This study has contributed to the identification of critical determinants in relation to the SWAP deployment, development and progression and workforce planning. These will inform a maturity matrix that can inform policy on SWAP utilisation.

## Limitations

A potential limitation of this study was that it only studied nine NHS Trusts across England and therefore some perspectives may not be represented. However, the purposive sampling strategy minimised the impact of this and it became clear during analysis that data saturation had been achieved. Being reliant upon single day site visits, some staff/SWAPs were unavailable, though follow up online interviews were offered/undertaken. Nevertheless, some focus groups with SWAPs were underrepresented. No site-based respondent validation of our analysis was undertaken; however a stakeholder event held in December 2024 provided an opportunity for participants and national stakeholders to discuss the findings prior to submission of this paper.

## Conclusion

SWAPs are integral to imaging services and crucial to operational efficiency but there is considerable variation in how they are deployed, trained and supported. This high variability confirms that there is not a one-size-fits-all approach to their deployment. This department-level investigation has confirmed the findings of our recent multi-centre service-level qualitative study<sup>19</sup> showing the extent to which imaging services rely heavily on the SWAP workforce. The value of the support workforce in optimising workflow, enhancing patient care and streamlining administrative tasks is clearly recognised. Job satisfaction among SWAPs is high and they are well integrated into imaging teams with little to no evidence of a 'negative' hierarchy, yet role clarity is variable with evidence of role boundary blurring and role creep, particularly where staff shortages exist. Rotation of support workers provides flexibility to address some service needs, however static deployment enhances consistency, team dynamics and job satisfaction. These case studies support the findings within our earlier scoping review<sup>13</sup> that the concept of (seamless) career progression through flexible career pathways is some distance away from being achieved.

## Ethics approval and consent to participate

Ethical approval was obtained (Health Research Authority 22/HRA/4272; Sheffield Hallam University Research Ethics Committee ER60604418), alongside site approvals for the 9 NHS Trusts.



Participant information leaflets were shared in advance of the visits and all participants provided written consent including for the use of anonymised participant information to be published in this article.

### Availability of data

Data required for this study may be made available by the author(s) upon reasonable request.

### Author contributions

RA: Conceptualisation, methodology, investigation, formal analysis, Writing - Original Draft.

SE: Project Administration, investigation, formal analysis, Writing - Review & Editing.

BS: investigation, formal analysis, Writing - Review & Editing.

JN: Funding Acquisition, Project Administration, Supervision, Writing - Review & Editing.

### Generative AI use

Not applicable.

### Conflict of interest statement

None.

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