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Experiences of Diagnostic Radiographers Imaging People from Prison in Acute Hospitals in the UK: Phase One Findings from the EXPOSE Study

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ABSTRACT

Introduction: People in prison experience significant health disparities and rely on acute hospitals for secondary care, including diagnostic imaging. Despite this, little is known about how diagnostic radiographers experience imaging people from prison in acute hospital settings. This study aimed to examine these experiences in the UK.

Methods: This paper reports the Phase One survey dataset from the EXPOSE study, a wider doctoral programme. A cross-sectional survey was conducted as Phase One of a sequential explanatory mixed-methods study. Registered diagnostic radiographers in the UK with experience in imaging people from prison were recruited using convenience and snowball sampling. Data were collected via an online survey and analysed using descriptive statistics to identify patterns and variation in reported experiences. Phase Two qualitative findings will be reported separately.

Results: Fifty-five diagnostic radiographers participated. Most reported high confidence and perceived ability to deliver comparable care. However, 40% indicated that knowledge of offence history influenced their professional approach to some extent. Physical restraints were commonly encountered, with inconsistent documentation of clinical risk. Workflow, radiation protection, MRI safety, and patient positioning were frequently affected. Communication practices were altered for many participants. Despite minimal reported impact on image quality, variability in practice was evident. Most participants reported no formal training and limited awareness of the equivalence of care principle, relying primarily on informal coping strategies.

Conclusion: Diagnostic radiographers reported sustaining imaging delivery despite security-related, operational and ethical challenges. The variability in restraint-related processes, information-sharing and local protocols identifies conditions that may threaten consistent, person-centred care.

Implications for practice: Imaging departments should develop local pathways covering clinical-prison role boundaries, physical restraint decisions, proportionate information-sharing, modality-specific guidance, escalation and access to organisational support.

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Introduction

Globally, people in prison experience significant health disparities, with poorer health status, outcomes, and reduced access to healthcare compared with the general population.[1] The National Health Service (NHS) has been responsible for commissioning healthcare for people in prison since 2006, with a further reorganisation in 2013 to transfer direct responsibility to NHS England.[2] Despite the provision of healthcare within prison, people in prison continue to access most of their secondary care including diagnostic imaging, through external hospital services[3] People in prison are therefore required to travel to acute hospitals in the community to receive secondary care, while complying with the security restrictions imposed by the prison system. These encounters occur within prison escort and security arrangements, which create additional challenges for healthcare

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professionals (HCPs), as they must coordinate closely with prison authorities to provide access to these external appointments.[3,4]

Existing legal frameworks such as the UN Nelson Mandela Rules and equivalence of care principle, establish that people in prison are entitled to healthcare services that are at least equivalent to those available in the community[5,6] The realisation of these frameworks requires not only access to prison healthcare services, but also timely access to secondary care. However, it remains unclear how these frameworks are enacted during diagnostic imaging for people from prison in acute hospitals where security arrangements, physical restraints and prison responsibilities intersect with imaging examinations.

A recent systematic review synthesised ten studies from four countries on the experiences of HCPs caring for people from prison in acute hospital settings[7] HCPs often experienced emotional and ethical distress when balancing patient care with the security demands of the prison system[8–10]The roles of HCPs were also frequently disrupted by unclear protocols, fragmented communication with prison authorities and uncertainty surrounding discharge arrangements.[8,11,13] The review also identified that stereotypes and offence-related judgements by HCPs and the routine use of physical restraints by prison officers contributed to bias and dehumanising practices[14–17] Nonetheless, some HCPs demonstrated advocacy and empathetic resilience by challenging restrictive practices and calling for clearer policies and structured training to support care for people from prison in acute hospitals[10,11,17]

The existing studies have predominantly focused on the experiences of nurses, physicians and other HCPs[8–17] The systematic review identified no studies in any part of the world on the experiences of diagnostic radiographers[7] The absence of diagnostic radiographers is remarkable given their central role in the diagnostic pathway for people from prison through performing imaging examinations to support diagnosis, monitoring and treatment planning[18] Diagnostic radiography practice involves technical and procedural responsibilities around patient positioning, radiation protection, equipment and personnel safety, image quality and efficient workflow. During imaging examinations for people from prison, these responsibilities may require negotiations around modification of physical restraints, presence of prison officers, patient privacy, and competing imaging and prison priorities. However, there is little to no evidence on how diagnostic radiographers experience and navigate these encounters in clinical practice.

To address this gap in clinical practice, the EXPOSE study was developed and conducted in the UK. The EXPOSE study is an ongoing sequential explanatory mixed methods study conducted within a wider doctoral programme exploring the lived experiences of diagnostic radiographers imaging people from prison in acute hospitals in the UK. The present paper reports Phase One, an exploratory cross-sectional survey of practising UK diagnostic radiographers. Phase Two comprises semi-structured interviews designed to explore the survey findings in greater depth and will be reported separately following completion of Interpretative Phenomenological Analysis.

A related education and training needs study was also conducted within the wider doctoral programme but is methodologically and analytically distinct from the EXPOSE study. It used a separate questionnaire, participant sample, recruitment period, ethics approval, dataset and data analysis approach and is reported separately in a different paper. Whereas that study focuses on curriculum exposure, preparedness and workforce-development needs, the present paper examines the experiences of diagnostic radiographers during clinical encounters.

Therefore, the aim of this paper is to examine the self-reported professional experiences of diagnostic radiographers during imaging people from prison in acute hospital settings in the UK.

Methods

Ethics approval

Ethical approval for this study was obtained from the Health, Education and Life Sciences Faculty Academic Ethics Committee at Birmingham City University (Ref: Emery/#15019 /sub1/Am/2025/Aug/HELS FAEC). Participants accessed a participant information sheet before beginning the survey, which explained the purpose of the study, eligibility criteria, voluntary participation, anonymity, data handling and the right to withdraw before submission. Informed consent was obtained electronically before participants proceeded to the survey questions. No patient-identifiable or participant-identifiable information was collected.

Study design

A cross-sectional survey design was employed in this phase to identify prevalence and patterns[19] in experiences across a wide group of diagnostic radiographers. The reporting of the survey was guided by the Consensus-Based Checklist for Reporting of Survey Studies (CROSS).[20] The Phase Two qualitative findings of the EXPOSE study will be reported separately.

Sample and sampling

The study sample included registered diagnostic radiographers, who were practising in the UK and had experience of imaging patients from prison in an acute hospital setting. Participants were eligible to participate if they were registered diagnostic radiographers practising in the UK, aged 18 years or above, and had experience performing imaging examinations for people from prison in an acute hospital setting. Diagnostic radiographers who had no experience imaging people from prison, radiographers practising outside the UK, therapeutic radiographers, and student radiographers were excluded. Eligibility was confirmed through a screening question at the start of the survey. Participants who selected “No” to having experience imaging people from prison were automatically exited from the survey.

A formal sample size estimation was not feasible due to the absence of an identifiable sampling frame. Although the Health and Care Professions Council (HCPC) maintains a register of diagnostic radiographers, it is not feasible to determine how many diagnostic radiographers are currently in acute hospitals and have experience imaging people from prison. As a result, non-probability sampling was used, combining convenience and snowballing sampling to recruit eligible diagnostic radiographers.[21] Convenience sampling was used to reach diagnostic radiographers through professional networks and online platforms, while snowball sampling was encouraged by asking participants to share the survey link with other eligible diagnostic radiographers. To increase participation, the study was promoted repeatedly through LinkedIn, conference dissemination and the Society and College of Radiographers Live Log of Member Research. The total number of diagnostic radiographers who received the invitation could not be determined and a response rate could not be calculated because the survey link was openly circulated.

Survey development, design and validation

The survey was informed by the findings of a systematic review[7] conducted as part of the PhD project, which identified a lack of a validated survey instrument on prison health in diagnostic radiography research. The survey consisted of five different sections with full details provided in Supplementary File 1.

To enhance the clarity, relevance and appropriateness of the survey, Professional Involvement and Engagement (PIE) sessions were conducted prior to data collection. Two diagnostic radiographers and a sonographer (with experience in diagnostic radiography), with research experience and a combined 19 years of clinical experience, reviewed and provided feedback on the terminology across modalities, clarity, sequencing and sensitivity of questions.

The feedback was reviewed by the research team and informed revisions in the survey before pilot testing. A pilot test was conducted with one diagnostic radiographer with more than three years of clinical experience to assess clarity, flow, estimated time for completion, and functionality of the online survey platform. The participant provided only minor feedback, including the provision of a definition of "people from prison". No substantive changes were made to the content of the survey or structure before data collection.

Data collection

The survey was hosted online via the JISC Online Surveys, circulated and promoted frequently on social media platforms such as LinkedIn. Additionally, the study was promoted at the Achieving Excellence in Radiography Education and Research 2025 and RadResearch Conference (Year 2). The study was also listed on the Live Log of Member Research website hosted by the Society and College of Radiographers.

Data were collected from 29th October 2025 to 4th March 2026. Participants accessed the survey through a hyperlink or QR code embedded in the recruitment poster. At the start of the survey, participants had to confirm their experience of performing clinical imaging for patients from prison through a screening question by selecting "Yes or No". All participants who selected "No" were automatically signed out from the survey. Survey responses were collected anonymously, and no personally identifiable information was recorded.

Data analysis

All survey responses were downloaded from JISC Online Surveys and imported to SPSS Version 25 for statistical analysis. Frequencies and percentages were used to summarise demographic characteristics and survey responses. The descriptive analysis enabled the identification of patterns within the dataset and provided an overview of the experiences reported by participants.

Results

A total of 55 diagnostic radiographers completed the online survey.

Participant demographics

Table 1 below presents the demographic and professional characteristics of participants.

Professional and procedural challenges

Table 2 below presents the professional and procedural experiences of diagnostic radiographers when imaging people from prison.

Most participants (70.9%, n = 39) reported high levels of confidence from very confident to extremely confident, as reported in Table 2. Many participants (85.5%, n = 47) agreed they were able to exercise professional judgment without interference and most (70.9%, n = 39) disagreed that the presence of prison officers complicated their role.

Personal safety concerns were reported sometimes or always by 65.5% of participants (n = 36). Information regarding legal status or offence history of people was mostly unknown, with 80% of participants (n = 44) reporting never or rarely. Among participants, 50.9% (n = 28) reported that knowledge of offence history did not influence their professional approach. However, 40.0% (n = 22) of participants reported a slight (18.2%, n = 10), moderate (9.1%, n = 5) and a significant (12.7%, n = 7) influence. Physical restraints were commonly encountered during imaging, with 54.6% of participants (n = 30) reporting physical restraints were often or always present. However, documentation of clinical risk when restraints are used was inconsistent. While most participants felt able to request restraint removal or modification (74.5%, n = 41), this was not always granted.

Decision making was mostly shared between diagnostic radiographers and prison officers (49.1%, n = 27), followed by decisions made solely by prison officers (25.5%, n = 14) or diagnostic radiographers (23.6%, n = 13). Departmental protocols were not widely reported, with 45.4% of participants (n = 25) disagreeing or strongly disagreeing that such protocols existed.

Impact of challenges on practice, wellbeing and interactions

The figure below presents the reported impact of imaging people from prison on image quality, workflow and safety.

Most participants (85.4%, n = 47) reported slight or no effect on image quality or the need to repeat images as reported in Fig. 1. However, majority of the participants (67.2%, n = 37) reported slight to significant impact on workflow and throughput. Similarly, 67.3% of the participants (n = 37) reported these encounters had slight to significant effects on radiation protection, MRI safety, or positioning decisions.

Most participants (85.5%, n = 47) agreed or strongly agreed they were able to deliver care to people from prison equivalent to that provided to other patients, as reported in Table 3. Communication practices were reported to have changed by 43.7% of participants (n = 24), while 43.6% (n = 24) reported no change. Most participants (81.9%, n = 45) reported slight or no effect on emotional wellbeing. Also, 16.3% of participants (n = 9) reported a moderate to extreme effect on emotional wellbeing.

From Fig. 2, the most frequently reported experiences of imaging people from prison were collaboration with prison officers (n = 42), empathy and compassion (n = 30). Other commonly reported experiences included radiation protection issues (n = 22), delays in imaging examinations (n = 20), emotional detachment (n = 17), and stress and anxiety (n = 15).

Coping strategies and support needs

Almost all the participants (94.5%, n = 52) reported that they had not received any training specifically related to caring for people from prison, as reported in Fig. 3. Awareness of the NHS England principle of equivalence of care was also limited, with 56.4% (n = 31) indicating that they were not aware of the policy.

Table 1
Participant demographic and professional characteristics.

Variable	Sub-category	N	%
Gender	Man	32	58.2
	Woman	23	41.8
Years of experience	0–2 years	9	16.4
	3–5 years	17	30.9
	6–10 years	15	27.3
	More than 10 years	14	25.5
Administrative region/location	West Midlands	21	38.2
	East of England	7	12.7
	North West	6	10.9
	Yorkshire and the Humber	6	10.9
	East Midlands	5	9.1
	South East	3	5.5
	London (Greater London)	2	3.6
	Scotland	2	3.6
	South West	2	3.6
	North East	1	1.8
Primary area of practice	General radiography	18	32.7
	Computed Tomography (CT)	14	25.5
	Magnetic resonance imaging (MRI)	14	25.5
	Rotational radiographer	6	10.9
	Mammography	2	3.6
	Interventional	1	1.8
Frequency of performing imaging examinations for people from prison	Occasionally (monthly)	21	38.2
	Rarely (a few times a year)	22	40.0
	Very frequently (weekly)	12	21.8

The most commonly reported strategy was personal reflection (31%, n = 17), followed by informal peer support (25%, n = 14) and formal workplace support (15%, n = 8), as reported in Fig. 4. Avoidance strategies were reported by 10% of participants, while 19% (n = 10) reported using no specific coping strategies.

Discussion

To our knowledge, this is the first empirical study to examine experiences of diagnostic radiographers imaging people from prison in acute hospitals. Phase One identified a tension between participants' reported confidence and the security-mediated conditions in which imaging examinations were performed. Diagnostic radiographers generally perceived themselves as professionally autonomous and able to provide comparable care, yet frequent use of physical restraints, negotiated decision-making with prison officers, inconsistent departmental protocols and reported effects on workflow, positioning and imaging safety were common. These findings suggest that radiographers may sustain imaging delivery through experiential adaptation within variable clinical and prison arrangements.

Professional and procedural experiences in diagnostic radiography practice

Diagnostic radiographers in the current study reported high levels of confidence with high perceived sense of professional autonomy during imaging examinations for people from prison. This apparent confidence, in the absence of structured preparation for diagnostic radiographers regarding people from prison, may reflect experiential adaptation rather than structured preparedness. Superficially, this suggests diagnostic radiographers maintain control over clinical decision-making for people from prison during imaging examinations. However, this perception exists within an environment where clinical decision making is usually shared with or influenced by prison officers. These findings highlight how clinical autonomy can be constrained when caring for people from prison as demands of the criminal justice system can override clinical decision making.[22,23] Accordingly, previous studies have consistently reported that the presence of prison officers, use of physical restraints, and the lack of clear protocols disrupted clinical roles and limited the ability of HCPs to act independently.[8–10,12]

Another important finding is the frequent encounter of physical restraints during imaging with inconsistent documentation of clinical risks. The His Majesty's Prison and Probation Service (HMPPS) External Escorts Policy Framework requires restraint decisions during external acute hospital appointments to be based on an individualised escort risk assessment rather than applied automatically because a patient is from prison[35] The assessment considers security, escape risk, risk of harm, medical condition, mobility, dignity and the nature of the planned clinical examination. For medical escorts, the policy requires security considerations to be balanced with necessity, decency, dignity and humanity, and recognises that risk may change according to the patient's clinical condition and treatment.[35] During imaging examinations, this is particularly relevant where physical restraints may affect patient positioning, image quality, equipment safety, and privacy. Although prison officers retain responsibility for security decisions, healthcare input should inform risk assessment, and diagnostic radiographers may advise removal or modification where restraints impede imaging examinations. The inconsistent documentation of clinical risk identified in this study may indicate a need for clearer local processes and protocols between imaging departments, prison escort staff and referring clinical teams, including documentation of restraint decisions and their clinical justification.

These findings are consistent with existing studies that reported that physical restraints are routinely used in acute hospital settings on people from prison, sometimes without clear clinical justification[9,11,17,24] Previous studies have indicated how such practices can interfere with healthcare delivery for people from prison, compromise patient dignity and create ethical tensions for HCPs[10,12] These challenges are noteworthy in

Table 2
Professional and procedural experiences of imaging people from prison.

S/N	Statement/Question		N	%
	How confident do you feel when performing imaging examinations for people from prison?	Not confident at all	0	0.0
		Slightly confident	4	7.3
		Moderately confident	12	21.8
		Very confident	31	56.4
		Extremely confident	8	14.5
	In these encounters, I can exercise my professional judgement without interference.	Strongly disagree	1	1.8
		Disagree	3	5.5
		Neither agree nor disagree	4	7.3
		Agree	33	60.0
		Strongly agree	14	25.5
	The presence of prison officers during imaging complicates my role.	Strongly disagree	16	29.1
		Disagree	23	41.8
		Neither agree nor disagree	4	7.3
		Agree	8	14.5
		Strongly agree	4	7.3
	How often do you feel concerned about your personal safety when dealing with people from prison?	Never	19	34.5
		Sometimes	27	49.1
		Always	9	16.4
	The information about legal status or offense history becomes known to me during these encounters.	Never	26	47.3
		Rarely	18	32.7
		Sometimes	9	16.4
		Often	2	3.6
		Always	0	0.0
	If known, this information influences my professional approach.	Not at all	28	50.9
		Slightly	10	18.2
		Moderately	5	9.1
		Significantly	7	12.7
		Prefer not to say	5	9.1
	I Encounter physical restraints during imaging for people from prison.	Never	8	14.5
		Rarely	4	7.3
		Sometimes	13	23.6
		Often	9	16.4
		Always	21	38.2
	When restraints are used, a clinical risk is documented before imaging.	Never	12	21.8
		Rarely	9	16.4
		Sometimes	10	18.2
		Often	6	10.9
		Always	5	9.1
		Not applicable	13	23.6
	If I request restraint removal, it is usually granted.	Never	1	1.8
		Rarely	7	12.7
		Sometimes	8	14.5
		Often	12	21.8
		Always	13	23.6
		Not applicable	14	25.5
	I Feel able to request restraint removal or modification when clinically appropriate.	Strongly disagree	0	0.0
		Disagree	6	10.9
		Neither agree nor disagree	8	14.5
		Agree	30	54.5
		Strongly agree	11	20.0
	My department has clear written protocols for managing people from prison that are consistently applied	Strongly disagree	8	14.5
		Disagree	17	30.9
		Neither agree nor disagree	13	23.6
		Agree	9	16.4
		Strongly agree	8	14.5
	Who most often makes final decisions about movement, restraint continuation, or discharge during imaging?	Diagnostic radiographer	13	23.6
		Prison officer	14	25.5
		Joint decision	27	49.1
		Other (Line Manager and prison officer)	1	1.8

diagnostic radiography practice as physical restraints may affect patient positioning, image quality and equipment safety[18] Nonetheless, most diagnostic radiographers reported the presence of prison officers did not complicate their role. This finding is contrary to previous studies where HCPs frequently described the presence of prison officers as disruptive, and a barrier to privacy and patient-centered relationships.[8–10,12] A possible explanation for this difference might be the task-oriented nature of diagnostic radiography practice, where interactions with patients are often brief and procedural. These interactions are shaped by high throughput and time-pressured environments typical of imaging departments,[25] compared to other clinical roles that require prolonged patient engagement.

One interesting finding is the lack of clear and consistently applied departmental protocols as reported by nearly half of participants which suggests variability in practice across imaging departments in the UK. This agrees with existing literature which reported unclear institutional policies and a lack of standardised protocols as barriers to effective care for people from prison.[8,10,11] More than half of diagnostic radiographers expressed concerns about personal safety during imaging encounters with people from prison. This concern might be influenced by entrenched

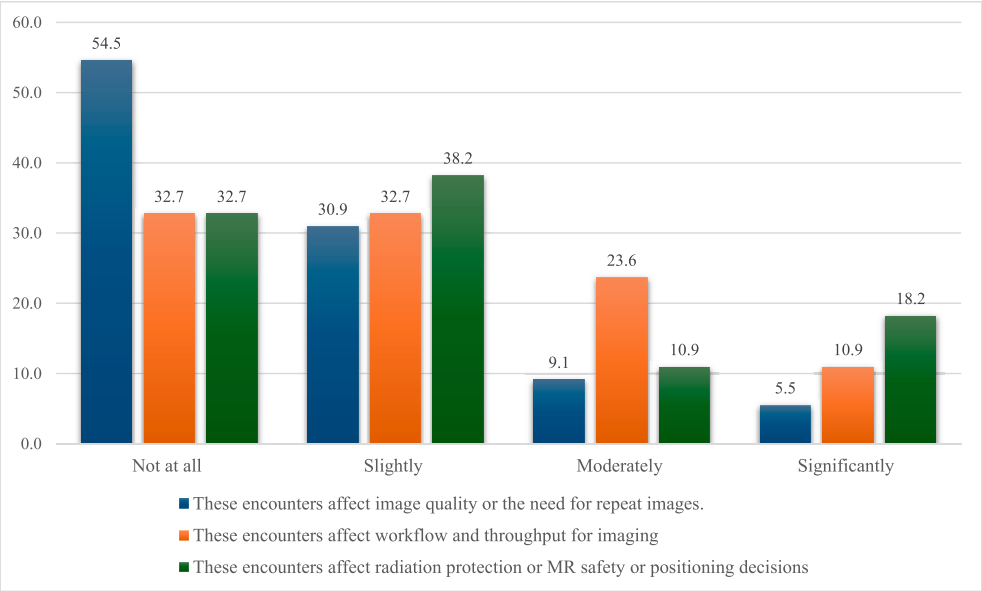


Figure 1. Reported impact on image quality, workflow and safety.

Table 3
Perceived impact on care, communication and Well-being.

S/N	Statement/Question		N	%
	I Can deliver care to people from prison equivalent to that provided to other patients	Strongly disagree	0	0.0
		Disagree	5	9.1
		Neither agree nor disagree	3	5.5
		Agree	27	49.1
		Strongly agree	20	36.4
	Have these encounters changed how you communicate before, during, or after imaging?	No change	24	43.6
		Yes, somewhat	21	38.2
		Yes, significantly	3	5.5
		Not sure	7	12.7
	Overall, how much have these experiences affected your emotional well-being as a diagnostic radiographer?	Not at all	25	45.5
		Slightly	20	36.4
		Moderately	7	12.7
		Extremely	2	3.6
		Prefer not to say	1	1.8

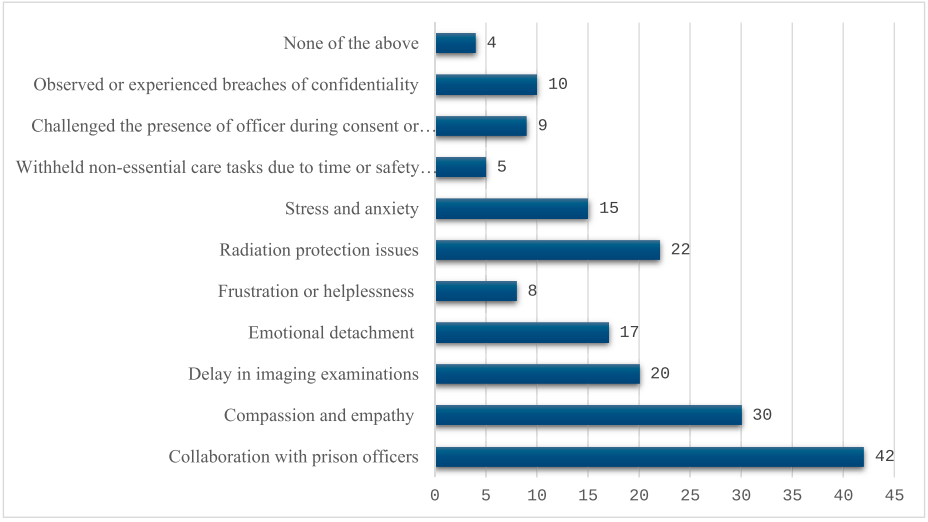


Figure 2. Reported Experiences of Imaging People from Prison (Multiple responses).

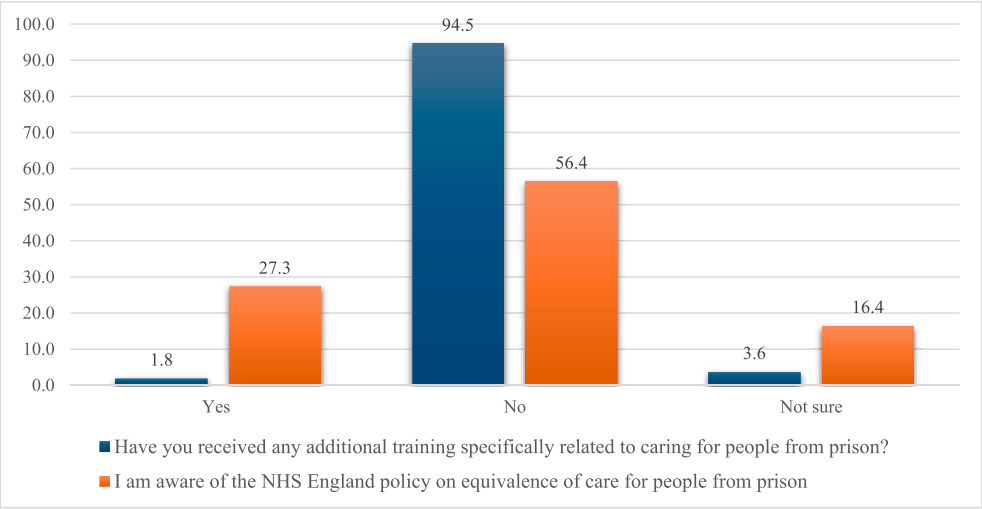


Figure 3. Training and awareness of equivalence of care policy.

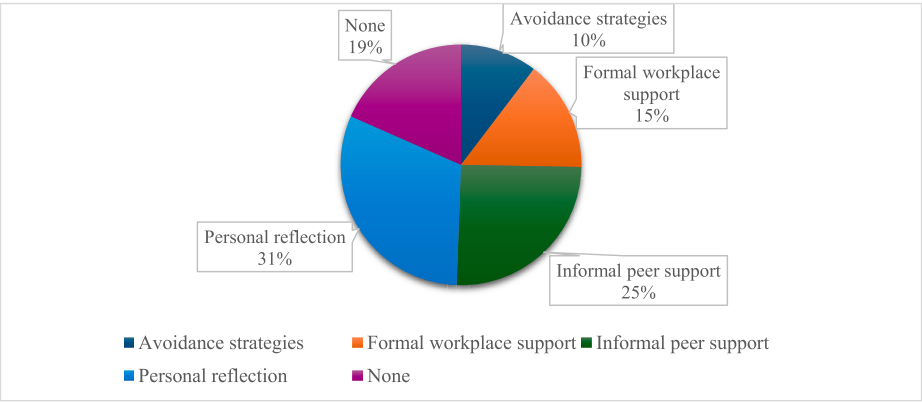


Figure 4. Reported coping strategies and support.

stereotyping, whereby people in prison are often perceived as dangerous or harmful.[26,27] Also, this concern may reflect several factors including, previous experiences, institutional narratives or the nature of prison escort procedures. Similar findings have been reported in existing studies where fear, often linked to visible security measures, prior experiences, or assumptions about patient behaviour shaped the interactions of HCPs with people from prison.[8,13,16,17,24]

Impact on diagnostic radiography practice, workflow and wellbeing

A greater proportion of diagnostic radiographers reported impacts on workflow, throughput, radiation protection, MRI safety and positioning decisions. Participants also reported changes in communication practices and differing effects on emotional wellbeing. The reported changes in communication and influence of offence-related information on professional approach for some participants suggest equitable care for people from prison may not be consistently achieved. However, offence-related information should not be routinely disclosed to diagnostic radiographers unless it is necessary, proportionate and directly relevant to clinical safety, risk management or practical care planning. Unnecessary disclosure of offence history may increase stigma and influence professional judgement. These findings therefore highlight the need for clear local boundaries around information sharing, so that radiographers receive relevant risk information without unnecessary disclosure of offence details. Overall, the findings indicate that radiographers may maintain core technical standards of imaging practice despite disruptions in workflow and safety considerations.

The reported impacts by participants may be explained by the additional coordination required during imaging for people from prison. These encounters may involve managing security protocols, negotiating with prison officers, accommodating restraints, and ensuring safe patient handling, all of which may extend imaging time and disrupt routine departmental workflow. Even minor delays in high-demand imaging departments can have cumulative effects on service delivery.[28] This finding extends literature, where studies have reported delays in treatment, fragmented care pathways, and challenges in coordination when caring for people from prison in acute hospitals.[8,9,11]

Some diagnostic radiographers reported changes in communication practices, revealing interactions with people from prison are adapted in real time in response to the context of care. Existing literature has shown communication with people from prison may be influenced by security measures, presence of prison officers, and time constraints, which reduce opportunities for patient-

centred communication.[8,13,16] In diagnostic radiography practice, where effective communication is essential for patient cooperation and positioning,[23,29,30] such adaptations may influence both the process and experience of patient care.

Most participants reported that these encounters had little or no effect on their emotional wellbeing. However, reported emotional experiences such as stress, anxiety, frustration, helplessness, emotional detachment and ethical conflicts suggested encounters with people from prison are not devoid of emotions. These results corroborate the findings of previous studies, where HCPs described caring for people from prison as emotionally complex and involved fear, frustration and moral distress, alongside empathy and compassion.[12–15]

Organisational preparedness and workplace support

An important finding is that nearly all participants in the current study reported that they had not received any specific preparation related to imaging people from prison. This shows that diagnostic radiographers are managing these complex clinical and ethical challenges without any structured educational or professional support. This aligns with previous studies where HCPs reported very limited or no formal training related to caring for people from prison.[11–13,17,23] This reflects a systemic issue that prison health remains marginal in healthcare professions education and continuous professional development.

Also, the findings show limited awareness of the application of the equivalence of care principle among diagnostic radiographers. This finding may indicate a gap between national expectations and their implementation within routine diagnostic radiography practice. The equivalence of care principle together with the NHS Inclusion Health Framework, places a clear responsibility on NHS services to ensure people from prison receive healthcare that is equitable, non-discriminatory and comparable to community standards.[31,32] However, in the context of the present findings, limited familiarity of the NHS England equivalence of care principle suggests this principle is not effectively translated into clinical practice and may contribute to variation in departmental approaches to imaging people from prison. This is consistent with previous research which identified gaps in knowledge of legal rights of people from prison, policies, and professional standards when caring for people from prison.[8,11,17]

With regards to coping strategies, majority of diagnostic radiographers reported relying primarily on personal reflection, informal peer support and avoidance strategies. This suggests diagnostic radiographers predominantly engage in individual sense making to navigate these encounters rather than reliance on structured formal support. The use of avoidance strategies by a proportion of participants, alongside reports of no coping strategies, raises further concerns. This avoidance may reflect underlying discomfort, uncertainty, or a lack of confidence in managing these encounters. Related literature has reported similar findings where HCPs reported emotional detachment and task-oriented care as coping mechanisms to manage emotional and ethical strain during care for people from prison.[11,13,14] While such strategies may provide short-term relief to HCPs, they may also contribute to reduced patient engagement and reinforce depersonalised care.[33,34]

Recommendations for practice

The findings support several recommendations for practice. Imaging departments should develop clear local protocols for imaging people from prison, including arrangements for communication with prison officers, restraint-related decision making, documentation of clinical risks, privacy, dignity and escalation where clinical and security priorities conflict. Guidance should also address considerations specific to imaging modalities, including patient positioning, radiation protection, magnetic resonance safety and equipment safety. Finally, information sharing should be limited to what is necessary and proportionate for safe care, with clear guidance on when risk-related information is clinically relevant.

Limitations of the study

This study employed non-probability sampling, which may limit representativeness and introduce selection bias.[21] The sample size is relatively small and based on self-reported data, which may be subject to response bias. The descriptive statistics also limit the ability to examine relationships between variables and restrict generalisability of the findings. Also, the use of Likert scale responses limits the depth and nuance of participants' experiences, as complex, clinical, ethical and interpersonal dimensions of practice are reduced to predefined response categories. The sample was also geographically uneven, with a relatively high proportion of participants from the West Midlands and limited representation from some UK regions. Accordingly, the findings should be interpreted as exploratory and may not represent the full range of practice across all imaging departments in the UK.These limitations emphasise the need for in-depth qualitative exploration, which is addressed in the second phase of this study. Phase Two of EXPOSE uses semi-structured interviews to explore how individual diagnostic radiographers experience and make sense of these clinical and prison conditions; those findings will be reported separately in a different paper.

Conclusion

Diagnostic radiographers reported high confidence and perceived ability to deliver comparable care to people from prison while working within security-mediated imaging conditions. Although participants generally reported limited effects on image quality, variability was evident in workflow, safety-related decisions, communication, information-sharing and departmental protocols. These findings support the development of clearer organisational pathways, modality-specific guidance and clinical-prison escalation processes. Phase Two of the EXPOSE study will explore how diagnostic radiographers experience and negotiate these conditions through qualitative interviews, and the findings will be reported separately following completion of data analysis.

Ethics approval and consent to participate

The study received institutional ethics approval from the Health, Education and Life Sciences Faculty Academic Ethics Committee at Birmingham City University (Ref: Emery/#15019/sub1/Am/2025/Aug/HELS FAEC). The study was carried out in accordance with the ethical principles of the 1964 Declaration of Helsinki and later amendments. Before accessing the survey, participants were presented with an information page which detailed out the purpose of the study, eligibility criteria, confidentiality and anonymity, and the voluntary nature of the participation. Participants were required to confirm informed consent electronically before proceeding with the survey.

Availability of data

De-identified data are available from the corresponding author upon reasonable request.

Author contributions

CVE: Conceptualisation, Methodology, Investigation, Formal Analysis, Writing – Original Draft; Writing – Reviewing and Editing, Visualisation; **OL:** Conceptualisation, Methodology, Supervision, Writing – Reviewing and Editing; **JB**: Conceptualisation, Methodology, Supervision, Writing – Reviewing and Editing.

Generative AI use

Not applicable.

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Conflict of interest statement

The authors declare no competing interests.

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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.2026.103530.

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