# Delivering informed measures of patient centred care in medical imaging: what is the international perspective?

Introduction

Focus on patient experience and patient centred approaches within healthcare has substantially increased since the Picker Institute (a not for profit organisation) was established in the 1980’s (Picker Institute, 2021). The Picker Institute’s vision for ‘the highest quality person centred care for all, always’ outlines eight principles of person-centred care which health care providers should strive for (Picker Institute, 2021):

1. Fast access to reliable healthcare advice
2. Effective treatment delivered by trusted professionals
3. Continuity of care and smooth transitions
4. Involvement and support for family and carers
5. Clear information, communication and support for self-care
6. Involvement in decisions and respect for preferences
7. Emotional support, empathy and respect
8. Attention to physical and environmental needs

The Picker Institute remains dedicated to researching how health care providers can improve patient experience, whilst ensuring patient clinical needs are met, and carer’s are kept involved. Picker’s founding principles have necessarily adapted from their original form to keep pace with changes in health and social care, but they remain the cornerstone of research and guidance on person-centred approaches. Organisations such as the National Health Service (NHS) in the UK, the Australian Commission on Safety and Quality in Health Care, and the Canadian Patient Safety Institute, have developed their own guiding principles for patient centred care, reflecting the nature of the health care systems in their respective countries. In the UK, professional, statutory and regulatory bodies governing health care professionals, such as the Health & Care Professions Council (HCPC), have incorporated patient centred approaches and care into their Standards of Proficiency for registrants (HCPC, 2013). In addition, UK organisations such as the College of Radiographers (CoR), Health Education England, the Nuffield Trust and The Health Foundation have provided further guidance and support for patient centred approaches (CoR, 2018; Nuffield Trust, 2017; Health Education England, 2017; The Health Foundation, 2016).

As guidance and regulation linked to patient care and patient experience has become more widespread, interest in research into patient centred care has developed. Publications sharing the findings of research projects carried out to investigate patient experience during medical imaging examinations and radiation therapy have also increased. Notable authors publishing the findings of their research into patient experience of medical imaging or radiation therapy include Bleiker, Bolderston, Challen, Hendry, Rasschou, Strudwick and Taylor (Bleiker et al, 2018; Bleiker et al, 2020: Bolderston et al, 2010; Bolderston, 2016; Challen et al, 2018; Hendry, 2019; Rasschou et al, 2019; Strudwick et al, 2011; Strudwick et al, 2012, Strudwick et al 2018; Taylor et al 2020). Each of these authors has considered different elements of patient centred care or patient experience in their research, contributing to the infant evidence base for good practice in patient centred care in medical imaging and radiation therapy. For example, Bleiker’s focus in her 2020 paper on compassion during medical imaging examinations is complimented by Taylor’s research also published in 2020 on compassion during radiation therapy treatment (Bleiker et al, 2020; Taylor et al 2020). However, this disaggregated approach to evaluating patient centred care reduces findings to single perspectives or environments. In our research, we have sought to broaden our understanding of the experiences and perspectives of care and, through engagement with service users, clinical radiographers, radiography managers, radiography academics and student radiographers, define informed measures of patient centred care for medical imaging technologists. To date we have only reported the findings from our UK based participants (Hyde & Hardy, 2020; Hyde & Hardy, 2021a; Hyde & Hardy, 2021b; Hyde & Hardy 2021c). In this commentary we would like to open up the debate to global colleagues and explore the similarities and differences between UK and international views of patient centred care in medical imaging.

## Methods

We adopted a multi-method research approach consisting of two stages: Stage 1 was an online attitudinal survey, Stage 2 was a series of focus groups and semi structured telephone interviews. The research was funded by the UK College of Radiographers Industry Partnership Scheme (CoRIPS). Prior to data collection commencing, ethical approval was sought from the University of Derby College of Health & Social Care Research Ethics committee (18/02/2018 for Stage 1; 08/03/2019 for Stage 2).

Participants were recruited to the research project via a project poster at the UK Imaging & Oncology congress in July 2018 as well as a series of social media posts in July 2018 and invitations sent out via the service user networks at the researchers' institutions. A small number of international participants participated in stage 1 accessing the Stage 1 survey web link through social media posts on Twitter and LinkedIn platforms.

Prior to completing the survey, all participants were asked to read a participant information sheet and confirm their consent to be part of the research project. Participants were provided with information about how their anonymity would be maintained and data stored in compliance with UK data protection legislation. Before starting the survey proper, participants were asked to confirm their current role (service user, clinical radiographer, radiography manager, radiography academic or student radiographer) as this defined the survey participant grouping and phrasing of statements. The survey itself consisted of a number of paired attitudinal statements about patient care during diagnostic medical imaging examinations. Each statement was phrased positively and negatively to increase validity of responses, but not co-located to improve response reliability and reduce questionnaire fatigue. At the end of the paired attitudinal statements there was an opportunity to provide free text comments, and an invitation to take part in Stage 2 of the research. Finally, participants were asked for some demographic information about their location, number of years since qualification, and the gender they most closely identified with.

Responses were received from 21 international colleagues; 13 medical imaging technologists, 5 medical imaging technologist managers and 3 medical imaging academics. The geographical locations declared by international participants included Canada, Australia, New Zealand and Spain. Only four medical imaging technologists and two medical imaging academics volunteered to take part in Stage 2 of the research project. Due to low numbers it was decided that no Stage 2 interviews would take place as there were insufficient international participants to draw valid, rigorous conclusions from the data about patient centred care outside of the UK. Concern also existed over the translation of the prepared clinical vignettes to practice outside of the UK. However, there were sufficient survey responses to provide some descriptive insights into perspectives of care.

## Discussion

Similar to the findings of the UK survey, managers and educators differed in their responses to statements when compared to clinical radiographers engaged with delivering patient care. Table 1 summarises the agreement with positively phrased statements received from international survey respondents. Like UK data, it is impossible to relate the findings to a particular hospital, region or country. However, the variation in responses confirms UK data suggesting that actual practice in terms of patient centred care varies from that believed to take place from the perspective of educators or managers. When exploring service user and student perspectives, UK data illustrated even wider variations in levels of statement agreement.

UK data demonstrated that medical imaging technologists and manager’s perceptions of the care delivered often differed to the service user’s perception of the care they received during an imaging examination. While all three groups saw technical skills as the fundamental foundation for patient centred care, perspectives on other important factors differed. Service users prioritised information, care, privacy and dignity, and environment when describing care. In contrast, medical imaging technologists and managers prioritised examination efficiency as a core component of care, then information, care, and finally privacy and dignity. Our research concluded that consideration needs to be given to aligning the priorities of those delivering the service with those using the service if patient centred care is to be truly achieved. To encourage this, audit tools have been developed to support the development of both individual and organisational patient centred care skills.

In the UK, medical imaging academics and students saw things differently once again, highlighting the impact of patient care role models within clinical departments. Students in particular observed that when time pressures were evident, technologists focussed more on efficiency and less on patient centred care. Students also reported that the high patient throughput and departmental efficiency pressures made it hard for them to challenge poor practice or advocate for patient centred care. As a result, our research concluded that to increase the importance of patient centred care and develop a culture of care over efficiency within medical imaging departments, tools were required to enable patient centred care to be measured and audited thereby providing evidence of the impact of patient centred care on service quality. As such, an online educational toolkit has been developed to support medical imaging technologists to role model patient centred behaviours, and to support students to develop patient centred behaviours.

To date the outputs from our research have focused on medical imaging practice in the UK and while responses from colleagues in Canada, Spain, Australia and New Zealand suggest similar issues in prioritising patient centred care exist across radiography globally, there were insufficient data to draw any valid conclusions about the international perspective on patient centred care in medical imaging. However, it was very encouraging that there was interest in patient centred care from across the globe and we are keen to undertake further research to draw out the international perspective on patient centred care. International participants in our research highlighted a range of issues which could impact on the delivery of patient centred care. Further research could therefore focus on:

1. The effect of different health care structures and systems on patient centred care, in particular the differences between health care systems which are publicly funded in comparison to those funded by private insurance schemes;
2. The different approaches to patient centred care required when delivering health care services in rural or remote settings;
3. The impact of cultural differences such ethnicity, religion or gender on patient centred care;
4. The impact of national policy and differing scopes of practice on the delivery of patient centred care;
5. The impact of different models of student education and training on understanding and delivery of patient centred care.

We are therefore seeking expressions of interest from our international medical imaging colleagues to collaborate on further research into patient centred care from a global perspective. We are interested in the similarities and differences between patient centred care in medical imaging in different countries and different health care systems. We hope to find shared values and beliefs in patient centred care and approaches that will be helpful to the international medical imaging community.

Word count: 1770

**Table 1: Agreement (%) with positively phrased attitudinal statements**

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| --- | --- | --- | --- |
| **Statement Focus** | **Educator / Academic**  **N=3** | **Clinical Radiographer**  **N=13** | **Radiology Manager**  **N=5** |
| Explanation of equipment, movement and noises | 100% (n=3/3) | 61.5% (n=8/13) | 100% (n=5/5) |
| Explore any difficulties patient may have maintaining position | 100% (n=3/3) | 76.9% (n=10/13) | 100% (n=5/5) |
| Understanding breathing/breath hold examination requirements | 100% (n=3/3) | 84.6% (n=11/13) | 100% (n=5/5) |
| Prompt and clear communication of equipment problems or failures | 100% (n=3/3) | 100% (n=13/13) | 100% (n=5/5) |
| Action re: any patient distress/anxiety before, during or after examination | 66.6% (n=2/3) | 100% (n=13/13) | 100% (n=5/5) |
| Explanations use appropriate language for patient understanding | 100% (n=3/3) | 84.6% (n=11/13) | 100% (n=5/5) |
| Patients feel confident in the care they receive | 66.6% (n=2/3) | 100% (n=13/13) | 80.0% (4/5) |
| Radiographers ensure patient is aware of who is in the examination room and their role | 100% (n=3/3) | 53.9% (n=7/13) | 100% (n=5/5) |
| Use of ‘Hello my name is..’ | 100% (n=3/3) | 92.3% (n=12/13) | 100% (n=5/5) |
| Patients invited to discuss their health problem and reason for attendance | 100% (n=3/3) | 84.6% (n=11/13) | 100% (n=5/5) |
| Patients given the opportunity to ask questions about their examination | 100% (n=3/3) | 23.1% (n=3/13) | 100% (n=5/5) |
| Patients given the opportunity to discuss their care needs for an effective examination | 100% (n=3/3) | 84.6% (n=11/13) | 60.0% (3/5) |
| Patients asked whether they would like a family member or carer to be involved in the conversation about their examination or care | 100% (n=3/3) | 92.3% (n=12/13) | 80.0% (4/5) |
| Radiographers take into account patient strength and resilience when assessing examination process and any modifications | 100% (n=3/3) | 92.3% (n=12/13) | 100% (n=5/5) |
| Radiographers provide the patient with positioning preferences where alternatives are possible | 100% (n=3/3) | 61.5% (n=8/13) | 100% (n=5/5) |
| Radiographers ensure the patient is able to maintain personal hygiene and provide support and assistance if required | 100% (n=3/3) | 69.2% (n=9/13) | 40.0% (2/5) |
| Co-ordination of imaging with other hospital appointments | 100% (n=3/3) | 69.2% (n=9/13) | 100% (n=5/5) |
| Communication of imaging appointment delays on departmental arrival | 100% (n=3/3) | 69.2% (n=9/13) | 100% (n=5/5) |
| Choice of radiolucent clothing/gowns for examination (physical and cultural needs) | 100% (n=3/3) | 7.7% (n=1/13) | 20% (1/5) |
| Ensuring size and length of clothing appropriate (physical and cultural needs) | 100% (n=3/3) | 23.1% (n=3/13) | 80.0% (4/5) |
| Provision of dressing gown, blanket or other items to maintain comfort, privacy and dignity | 100% (n=3/3) | 61.5% (n=8/13) | 80.0% (4/5) |
| Choice over lighting and other environmental settings (e.g. music) | 100% (n=3/3) | 15.4% (n=2/13) | 60.0% (3/5) |

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