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Research Article

Person-centred care education in practice: Students' and academics' evaluation of a postgraduate radiography module

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ABSTRACT

Background: Person-centred care (PCC) is fundamental to contemporary radiography practice. However, limited educational opportunities exist to enable radiographers to embed PCC in their practice, as most learning is assumed to occur while practising. To fill this gap, and ensure customised knowledge for specific patient groups, a postgraduate PCC-focused module for radiographers covered person-centeredness philosophy and practice. The aim of this study was to explore and describe the experiences of students and educators who participated in a postgraduate PCC-focused module.

Methods: This study employed a participatory action research (PAR) design. The sample comprised ten students and six faculty members who completed an online qualitative survey on Qualtrics. Additional qualitative data was collected using Mentimeter's word cloud. The qualitative survey data were analysed using Tesch's eight steps of coding. The word cloud was interpreted using literature to compare student participants' responses with literary meanings of PCC. Diffusion of innovations theory was employed as a theoretical framework to understand how educational innovation can enable personal and organisational change over time.

Findings: Four themes were generated: 1) stimulating a culture of person-centred care for both patients and staff, 2) module aspects that limited relatability and learning, 3) the ideal person-centred care module: suggestions for improvement, and 4) becoming champions of person-centred care: reflections on module impact.

Conclusions: The participants experienced this PCC module as empowering and motivating, as it provided them with practical strategies to embed PCC in their everyday practice for different patient groups. it is hoped that this module can serve as the basis for similar educational provisions in other academic institutions and geographical locations in the future.

RÉSUMÉ

Contexte: Les soins centrés sur la personne (SCP) sont fondamentaux dans la pratique contemporaine de la radiographie. Cependant, les possibilités de formation permettant aux radiographes d'intégrer les SCP dans leur pratique sont limitées, car on part du principe que l'apprentissage se fait principalement sur le terrain. Afin de combler cette lacune et de garantir des connaissances adaptées à des groupes de patients spécifiques, un module de troisième cycle axé sur les SCP et destiné aux radiographes a été mis en place, couvrant la philosophie et la pratique des soins centrés sur la personne. L'objectif de cette étude était d'explorer et de décrire les expériences des étudiants et des enseignants qui ont participé à un module de troisième cycle axé sur les SCP.

Méthodologie: Cette étude a été menée selon une approche de recherche-action participative. L'échantillon était composé de dix étudiants et six membres du corps enseignant qui ont répondu à un questionnaire qualitatif en ligne sur Qualtrics. Des données qualitatives supplémentaires ont été recueillies à l'aide du nuage de mots de Mentimeter. Les données qualitatives de l'enquête ont été analysées à l'aide des huit étapes de codage de Tesch. Le nuage de mots a été interprété à l'aide de la littérature afin de comparer les réponses des étudiants participants avec les significations littéraires des SCP. La théorie de la diffusion des innovations a été utilisée comme cadre théorique pour comprendre comment l'innovation pédagogique peut permettre un changement personnel et organisationnel au fil du temps.

Constats: Quatre thèmes ont été dégagés : 1) stimuler une culture de soins centrés sur la personne tant pour les patients que pour le personnel, 2) les aspects du module qui limitent la pertinence et l'apprentissage, 3) le module idéal de soins centrés sur la personne : suggestions d'amélioration, et 4) devenir des champions des soins centrés sur la personne : réflexions sur l'impact du module.

Conclusions: Les participants ont trouvé ce module stimulant et motivant, car il leur a fourni des stratégies pratiques pour intégrer les SCP dans leur pratique quotidienne auprès de différents groupes de patients. Nous espérons que ce module servira de base à des programmes éducatifs similaires dans d'autres établissements universitaires et régions géographiques à l'avenir.

Keywords: Person-centred care; Communities of practice; Workforce development; Service delivery; Patient experience; Radiography; Postgraduate study; Students; CPD

Introduction

Person-centred care (PCC) refers to a caring approach that is responsive to and focused on an individual patient's unique needs, circumstances, values and preferences beyond their illness or condition in context relative to their families and communities to achieve holistic wellbeing through shared decision making and co-production. Thus, PCC is broader than patient-centred care that narrowly only focuses on the patient and their condition or malady. Hence, we consider patient-centred care as a component of person-centred care. PCC aims to enhance patient experiences, care provision quality, and health outcomes, but also clinical staff wellbeing and resilience. For PCC to be effective, patient and clinical staff involvement and empowerment are key to enable shared decision making and personalised care [1–6]. PCC is important because medical imaging and oncology service users have diverse needs, preferences, and circumstances that can affect diagnostic and therapeutic radiographers' (hereinafter referred to as radiographers) care practices [3,4]. Considering the investment in resources development for PCC guidance and strategies to promote excellence in PCC, it is clear that this is a priority area in radiography and healthcare worldwide [7–9]. PCC as a core function of radiographers is underscored by The Health and Care Professions Council (HCPC) standards of proficiency [10]. It is therefore essential to devise and evaluate effective strategies that enable radiographers to adopt appropriate PCC practices in clinical settings. Additionally, the emotional labour associated with

PCC should be acknowledged and clinical staff wellness supported as part of PCC-oriented policies and practices [11].

Customised, specialised education and training, as one strategy, can empower healthcare professionals to adopt appropriate and effective PCC practices [12]. For PCC-focused educational interventions to be effective, they should be co-designed by scholars, clinicians, and service users, as well as be interdisciplinary [13,14]. These educational interventions enable healthcare professionals to optimise clinical practice, which, in turn, can improve care quality, patients' health outcomes, staff morale and retention and reduce costs associated with errors in healthcare settings [15,16]. Additionally, professional, statutory and regulatory bodies require service users and carers to participate in programme development [17–19]. Yet, few PCC-focused courses or modules for radiographers exist, despite the evident benefit of evidence-based PCC practices [20–22]. One can thus argue that radiographers have limited educational opportunities to gain the requisite knowledge and skills to adopt PCC practices, support their patients as well as to safeguard their own well-being. Other authors also propose further educational interventions for radiographers to empower them to embed PCC in their practice [23,24].

To address the limited PCC-focussed education for radiographers and the significance placed on PCC, a UK-based university developed and introduced a dedicated postgraduate module. This article describes the module's structure and discusses students' and academics' evaluation of this module, providing recommendations for module enhancement, with the view of providing a framework for other healthcare academics wanting to develop similar educational interventions.

Theoretical framework

This work is grounded in Rogers' diffusion of innovations (DOI) theory [25]. This theory facilitates the interpretation of participants' perceptions regarding the module's effectiveness, to understand the factors of the module that could influence participants' adoption of PCC practices.

Diffusion, defined as the communication of new ideas (i.e., an innovation) through specific channels, facilitates the adoption of innovations, such as new ideas, practices, behaviours, or products, within a social system over time, leading to structural and functional changes [25]. When an individual possessing greater knowledge about an innovation shares this information with someone less informed, the latter is likely to adopt the innovation. The transfer of information subsequently disseminates to numerous individuals within a specific context, resulting in systemic change and addressing an issue (Fig. 1) [25]. Person- and innovation-related factors influence whether individuals adopt an innovation. Knowledge and understanding of an innovation are person-related factors influencing its adoption. Innovation-related factors are summarised in Table 1. DOI theory also recognises that innovators try innovations first, followed by early adopters, early majority adopters, late majority adopters, and laggards (i.e., those that are skeptical of change) [25].

Research design and methods

Ethical considerations and approval

Ethics approval was waived by the University. The study involved routine module evaluation, with no foreseeable risk to participants and no sensitive or identifiable data was collected. A clear description of the study's goal, voluntary participation, confidentiality and anonymity of responses, and informed consent implied by survey completion protected participant rights.

Research design

A participatory action research (PAR) design, underpinned by a critical relativist paradigm, was appropriate as it is used when the aim is to address a real-world challenge requiring a sustainable, long-term solution [26]. The module was developed to encourage behavioural change since radiographers have limited educational opportunities to cultivate the skills, values and practices required to adopt PCC practices. The PAR cycle comprises four phases: identification of a problem/challenge, planning for action, taking action, and evaluating and specifying learning by participants. The PAR design enabled stakeholders, students and educators to actively shape each phase of the PAR cycle: they contributed to identifying the educational challenge, co-designed the intervention content and format, participated in its delivery, and engaged in reflective evaluation to refine future iterations [27,28]. Fig. 2 illustrates the application of the PAR cycle.

Features of the module evaluated

Key London- and Southeast England-based clinical partners of the university offering this module identified educational and prioritised needs of their staff, which led to the conceptualisation and design of this PCC-focused module. Literature, patient partners and PCC experts informed the content and structure of the module (Table 2). The course honours diversity and inclusion in practice by bringing together >30 lecturers from multiple professions (e.g., radiography, nursing, psychology, clinical science, physiotherapy, speech and language therapy, midwifery, medical humanities), different countries (the UK, Ireland, Greece, Switzerland, Germany, Canada, South Africa, Australia) and different agencies (charities and professional body representatives, government and industry). More than 60% of the lecturers are people with lived experiences as patients, family, or carers of under-represented, underserved or minoritised populations accessing healthcare. The content is updated annually to incorporate the latest research and developments in PCC.

Target population, sampling strategy and participant recruitment

Participants were recruited through purposive sampling. The target population comprised students ($n = 22$) and faculty members ($n = 15$) who taught in the module in one occurrence.

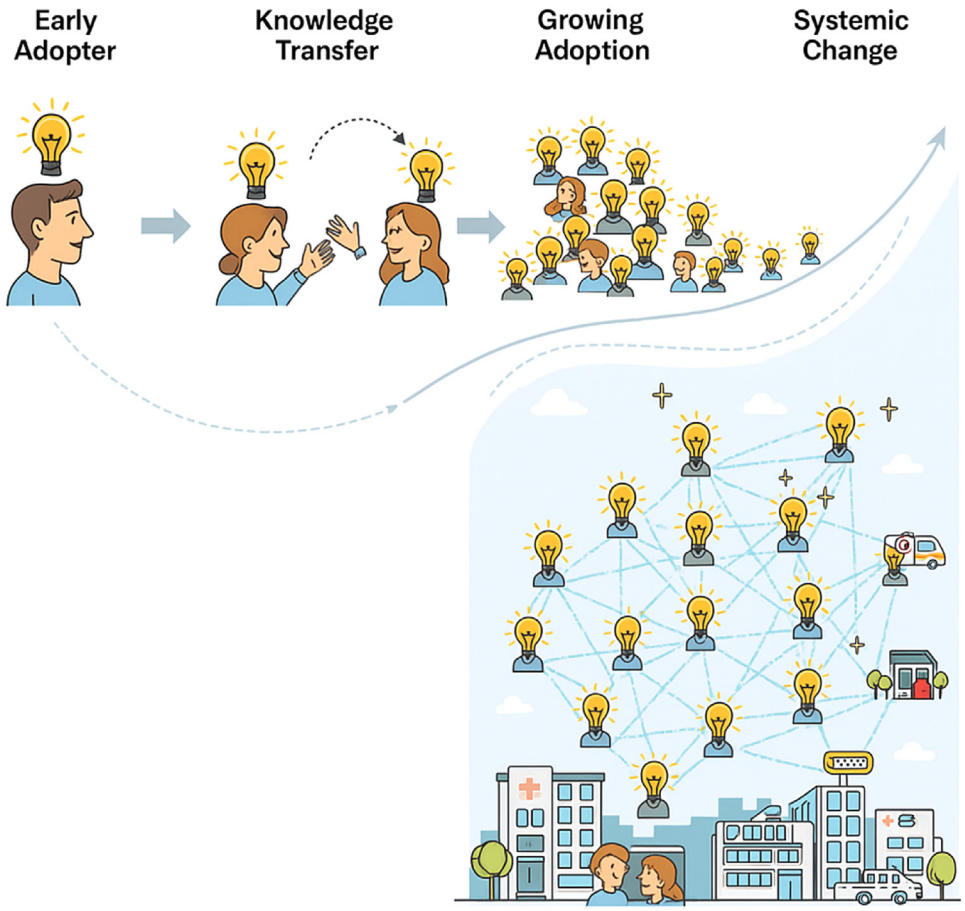

Fig. 1. Diffusion of innovation process (ChatGPT V5 generated on 26 September 2025).

Table 1
Innovation-related factors influencing adoption of innovations [25].

Factor	Explanation
Relative advantage	An individual's comparison of an innovation with a predecessor in terms of the degree to which the innovation is better and can be advantageous to them
Compatibility	How consistent the innovation is perceived to align with an individual's values, past experiences and needs
Complexity	An individual's perception about an innovation's difficulty level to comprehend and utilise
Trialability	The extent to which an innovation can be experimented with on a limited basis
Observability	The visibility of an innovation's impact to others

Participation was open to all 2022/2023 students and faculty members. Both participant groups were included to better understand the module's strengths, gaps and impact. The purpose of the module evaluation and the voluntary nature of participation were explained to participants. The information was verbally given to participants at the start and end of the module and included on the learning management system where the module was hosted. The anonymous module evaluation was completed after the end of the module so that student participants need not worry about the impact of non-participation on their studies. The final sample comprised ten of the students ($n = 10$) and six faculty members ($n = 6$). This sample size is considered appropriate for qualitative survey tool type studies given the limited scope and breadth of the work [29].

Data collection tool

As a targeted and flexible way to gather varied, nuanced viewpoints on the topic, a digital, self-designed, qualitative survey was used. The anonymous nature of the survey could facilitate more honest responses compared to one-on-one interviews, which can enable researchers to get a better understanding of the topic under investigation [29]. The survey comprised six open-ended questions (Table 3) and was designed using DOI theory [25] and qualitative survey guidelines by Braun et al [29]. The survey questions were open-ended, concise, and topic-focused, reflecting the study's scope and breadth. The questionnaire was developed using Qualtrics.

At the start of the module, students participated in a Mentimeter (V3.7, Mentimeter AB [publ], Sweden) word cloud

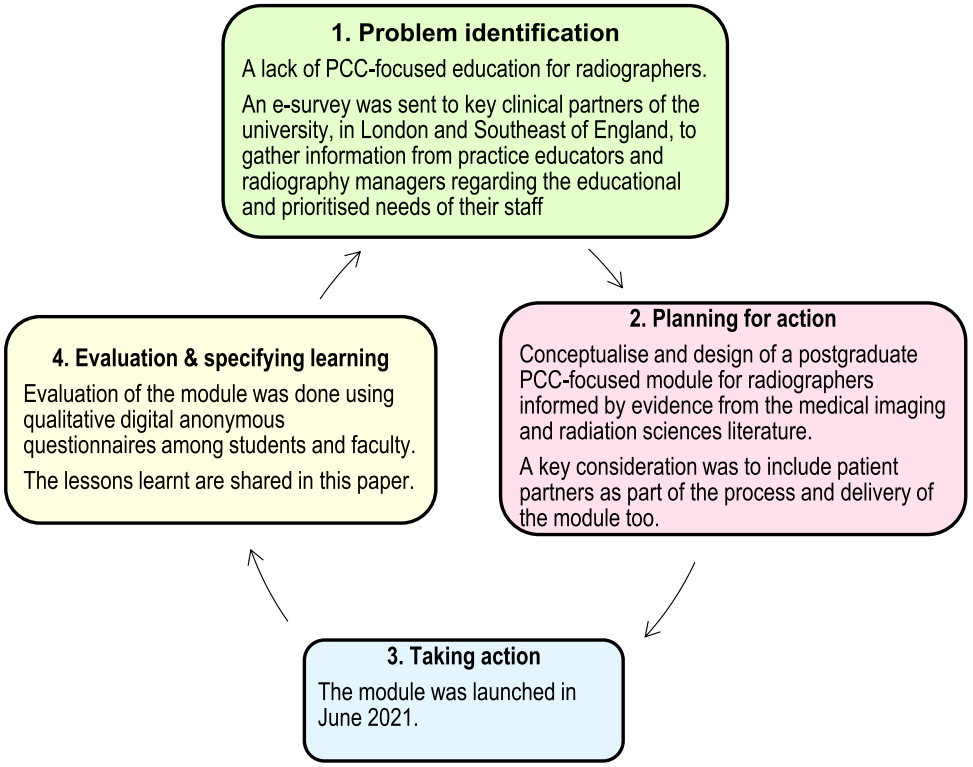

Fig. 2. Application and implementation of the PAR cycle in our work (Figure created by the authors).

activity to contextualise their views on PCC. The responses were later reviewed to identify recurring themes and inform the qualitative analysis. The question posed was: *what do you feel person-centred care is about?* Participants could give several single-word responses voluntarily and anonymously.

Data analysis

The survey responses were retrieved as a single report with question responses. None of the responses were changed. Quirkos™ (V2.5.3) was utilised for computer-assisted qualitative data analysis [30]. Data was coded using Tesch's eight steps of coding as well as an inductive, data-driven, open and descriptive coding approach [31,32]. Following the coding of the data to comprehend participants' narratives, categories and themes were constructed. DOI theory was used to interpret participants' accounts, and the constructed themes were aligned with key DOI theory constructs like relative advantage, compatibility, and complexity, providing a theoretical lens for understanding PCC practices. The initial codes and themes were discussed between the first and last author to ensure that the participants' views were accurately captured. After completion, the Quirkos™ coding report, containing the codes, themes and associated data segments, was exported and downloaded. This report facilitated refinement of themes and identification of verbatim quotations to substantiate the findings. The word cloud responses were compared with literature on PCC to make an inference about the student participants' understanding of what PCC encompasses.

Trustworthiness

Guba and Lincoln's trustworthiness model was used to ensure rigour [33]. Verbatim participant quotations and the co-coding and co-theme development process between two members of the research team ensured credibility. Their backgrounds are in diagnostic radiography and education, and they are passionate about person-centred care, which is one of their major research focus areas. The one team member that led the analysis and interpretation process specialises in qualitative research. It is acknowledged that these aspects may have contributed to shaping the data analysis and interpretation process. Reflexivity and detailed description of the methodology further ensured credibility. These strategies also ensured confirmability and dependability. Transferability was ensured by a detailed and vivid description of the findings, context and methodology utilised. Verbatim quotations, transparency in analysis, researcher reflexivity, and peer debriefing were employed to critically reflect on interpretations and maintain participant narratives to ensure authenticity.

Findings and discussion

Participants were early- to late-career individuals from clinical, academic and research fields from different geographical areas as indicated earlier. Four themes were constructed from the qualitative survey data. These themes represent descriptions and interpretations of the participants' viewpoints about the PCC module. Verbatim quotations are

Table 2
Details about the PCC module for radiographers and healthcare professionals.

Module name	Person centred care applications in healthcare
Level	Master's (level 7)
Credits	• 15 UK credits (equivalent to 7.5 ECTS credits) • Elective in year 2 for a 3-year master's programme, or as a standalone CPD either for credits (with assessments) or non-credit bearing (without assessments).
Length	3 days
Mode of delivery	In person, except for one online lecture allowed by the Associate Dean of Postgraduate taught studies, to benefit from the experience of international experts that cannot travel to the campus.
Pedagogical approach	• Didactic lectures, workshops, debates, tutorials, and interactive class discussions delivered by diverse group of experts by training and experts by lived experiences • Resources provided by thematically organising key articles, textbooks, policies, videos, podcasts and websites on the learning management system • Asynchronous, self-directed study of articles and lecture notes and discussion board activities on the learning management system, to support reflection and class interactions • Asynchronous online forum for student support • Formative feedback for assignments to support learning • Reasonable adjustments for neurodivergent students or those with learning differences (including subtitles in videos, where feasible)
Content themes (informed by evidence and lived experiences)	• **1) different patient populations**, where the following populations are considered: people with dementia, cancer, disability, multiple sclerosis, people in pain, children, parents and carers, black and brown people, individuals from sexual and gender minorities, autistic people, deaf people, people with Down's syndrome, and people with aphasia. • **2) methodology for personalised care**, where the following areas are discussed: impactful and effective communication, respectful language, disability, neurodiversity, coproduction, simulation, virtual reality, AI, moulage, use of mannikins, patient positioning devices, information leaflets and videos for patients. • **3) patients and healthcare professionals**, where the following areas are covered amongst others: staff burnout, staff and student wellbeing, staff-patient interactions, the impact of COVID-19 on service provision, and staff development.
Assessment strategy	• Documentation of class online interaction on Moodle with self-reflection and a poster on a relevant topic, with emphasis on synthesis and critical reflection. These were supported with online assessment tutorials and formative feedback.

Table 3
The qualitative survey questions.

1. Please state whether you are completing this survey as a student or educator, by writing "student" or "educator" in the box provided just below.
2. Please describe in the box below what you most enjoyed about the module.
3. Please describe in the box below what you least enjoyed about the module.
4. Please share with us by writing in the box below how we may improve the module in the future. This could relate to content or delivery format or anything else you feel relevant.
5. Please share with us by writing in the box below the most important things you have learned in this module.
6. Please let us know if you would change something in your practice (clinical, education, or research) based on the learning of this module.

used without attribution to participants due to the collective nature of the data report explained previously. It also enhances participant anonymity. Following the discussion of the word cloud, the findings of the module evaluation are discussed. The module evaluation findings are presented by theme.

Student participants' understanding of what PCC is about

Fig. 3 represents the word cloud generated at the start of the module from the Mentimeter student activity. Ninety-three unique responses were received, noting that multiple responses could be contributed by a single participant. Word cloud font size is proportional to the response frequency [34].

The word cloud shows that student participants understood PCC around eight main concepts: "respect", "dignity", "understanding", "empathy", "compassion", "communication", "safety", and "caring/care". Literature describes PCC as a care provision approach based on patient-practitioner partnership and shared decision-making that is responsive to the needs, values, preferences, and social circumstances of patients, thereby empowering them to make informed treatment decisions. Additionally, relatives, significant others, and carers must be involved in the care of a patient. PCC must be provided in an

Fig. 3. A word cloud of participants' understanding of person-centred care (Generated by Mentimeter).

emotionally supportive environment, whilst enabling wellbeing and upholding patient dignity and autonomy [1,2,35,36]. Compared to published definitions of PCC, student participants have a good understanding of its elements and potential implementation. This is because the eight common concepts that stand out in the word cloud are all encompassed in the literary descriptions of PCC. Notwithstanding that the less frequent responses (the smaller words) in the word cloud further illuminate the student participants' solid grasp of PCC. The different conceptions of what PCC means to the student participants may be influenced by their previous exposure and socialisation related to what PCC entails [37]. Different cultural backgrounds, worldviews and value systems can also impact different conceptualisations of PCC [38].

Module evaluation findings

Four themes were developed during the data analysis process. Fig. 4 illustrates the four themes' relationships. Participants identified module areas requiring enhancement and proposed suggestions. The proposed suggestions and strengths of the module can enhance its significance and influence on PCC culture and its implementation in practice. Each theme will be individually presented and discussed in this section.

Theme 1. Stimulating a culture of person-centred care for both patients and staff

Participants cited the module structure and content as significant strengths. The module syllabus enlightened them about what PCC entails and provided ample strategies that they can implement in their own contexts, as well as tools to investigate PCC practices further:

> *"The inclusive and accessible nature of the course - the course lead was fantastic at bringing people together and creating a safe environment for learners."*

> *"Honestly, I enjoyed literally every lecture, which brought some key areas of improvement to national strategy, but also to personal practice."*

> *"Topics were wide ranging, thought provoking and diverse."*

> *"I have listed actions for me to take back to my practice from every talk."*

The emphasis on lived experiences in didactic lectures and time for discussion and networking further assisted participants to reinforce their learning and made the concept of PCC and its implementation more relatable and realisable:

> *"…the opportunity to have an in-class discussion at the end, it was very interesting to hear different opinions as well as have the space to engage with open discussion…"*

> *"…the interaction, the inclusivity, the passion of the speakers and how most of them we talking [sic.] from experience at a personal level…"*

> *"Individual stories made the topic very powerful."*

Participants indicated that the module promoted psychological safety, thereby enhancing learning outcomes:

> *"...a variety of perspectives, opportunities to discuss topics in a safe welcoming environment"*

Kassab et al. [39] found that the learning environment significantly influences participation in health professions education. Didactic lectures alongside peer-assisted learning (PAL)

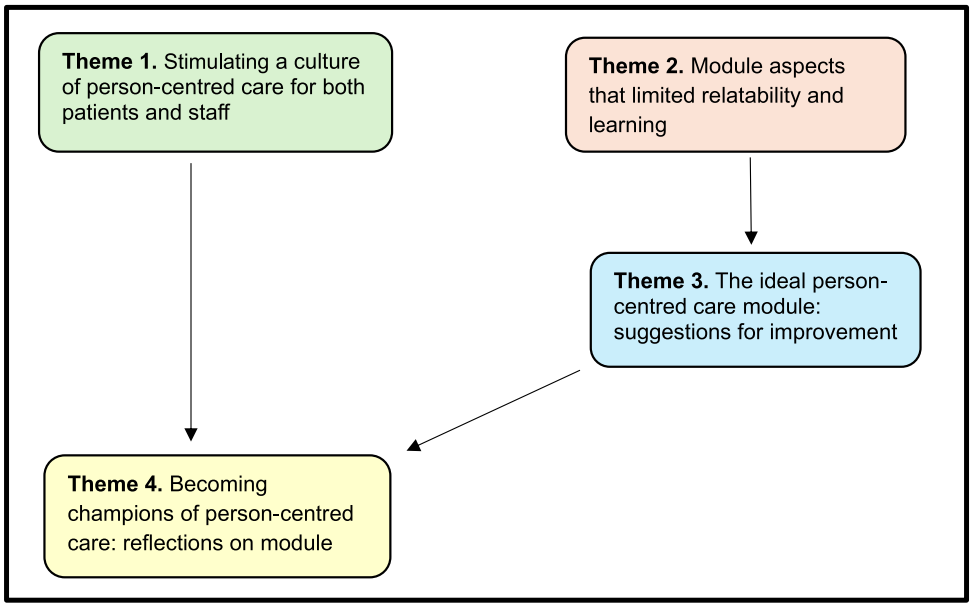

Fig. 4. A flowchart showing the relationships between the four themes.

were also found to promote active learning and engagement [40]. Literature also emphasises that interactive learning and teaching strategies promote understanding, self-confidence, communication and idea sharing [41]. Our study corroborated findings of other studies [42,43] insofar that the student and faculty member participants found the mix between didactic lectures and discussions among themselves useful to promote their learning. Participants also felt that personal narratives from lived experiences made learning authentic and engaging. Lecturers'/speakers' vulnerability fostered a sense of community and safety, allowing for free idea exchange and questioning. Literature highlights the positive mediating role that psychological safety and patient partners can have on learning and development, which is what our participants experienced. It can thus be argued that this also underpins participants' capacity to translate learning into practice [42,43]. Considering the participants' perspectives in the context of DOI theory, we argue that the module's practical tools and observable impact evidence made them more likely to become early adopters and innovators. This is because people are more likely to adopt an innovation if they see it as simpler and see its impact. This fosters a PCC-oriented institutional culture transformation, where early adopters and innovators share their knowledge and skills [25].

Theme 2. Module aspects that limited relatability and learning

The participants identified three aspects of the module delivery and content that limited learning as well as having little relevance to the PCC focus of the module. First, lectures on new technologies, like artificial intelligence or virtual reality, focus on its applicability in PCC was limited. Second, a participant relayed that they found the online lecture disengaging as they would have preferred it to be in-person. Lastly, several participants thought the small group break-out discussion in the same classroom as the main lectures were ineffective as the noise levels hindered their learning. They recommended separate break-out rooms for different groups in future:

> *"…felt that the VR lecture, although interesting in demonstrating new and upcoming technologies, needed a little more focus on person-centred care, as it was mostly a demonstration of the technology as opposed to its potential uses for patients…"*

> *"The online lecture. I feel I would have engaged more with the talk if it was delivered in person."*

> *"…multiple group discussions simultaneously was [sic.] not possible for me to participate in, it would be helpful to provide separate areas for groups to discuss things rather than within the same room…"*

The three barriers to learning are well-documented educational research. Literature emphasises that deep learning, as well as motivation for theory-practice integration, require meticulously organised module structure, clear content explanations and relevant examples [44]. Furthermore, some people prefer in-person over digitally mediated module delivery. Therefore, when selecting a mode of delivery, the target audience should be considered and a balance should be struck so that technology does not hinder learning [45]. Given the diverse target audience, it is challenging to meet everyone's preferences, but these could be considered to strengthen module delivery in future iterations. In terms of the DOI theory, participants' perceptions are consistent with how innovation adoption relates to individuals' values, needs and past experiences [25].

Theme 3. The ideal person-centred care module: suggestions for enhancement

The participants provided suggestions to enhance the module. These enhancements are either amendments to the existing module structure or additions to the content already included.

Participants felt that the module should be increased to five days instead of only three days due to the breadth of content covered. This was not consistent among participants though, as some felt the module length was adequate:

"…maybe having more time at least a week…"

"The three-day duration of the program and the one-hour duration of each lecture were just right."

Participants also wanted more time to interact with speakers. Some suggested adding additional interactive features to the module delivery and holding all didactic lectures in-person for uniformity:

"…would have been great to have longer to speak to some speakers 1:1 but many understandably had to head off. Consider asking if they could stay for a half-day session maybe?"

"If possible, deliver all of the module/talks in person. I would have liked more class participation e.g. role-playing scenarios, more quizzes etc." [sic.]

One participant suggested adding an interdisciplinary component to the curriculum to increase learning beyond radiography:

"…possibly extending the module to other health schools in the next academic year"

A participant also suggested that the debate reserved for the last day of the module may be extended to daily debate or general discussion to reinforce daily learning:

"More opportunity to discuss ideas as a group. There was a debate on the last day, but a debate (or maybe just a general discussion) on the topics of each day would be great and it will allow for peer-to-peer learning."

In addition to module structure amendments, participants also offered content-specific changes. These suggestions address identified gaps and the specific needs of participants to be comprehensively informed and empowered to practise PCC. Participants proposed a session on the use of translators to ensure PCC practices are offered to individuals where English is not their first language in practice:

"I feel that a talk on adapting for non-English speakers, use of translators would be of benefit."

Participants emphasised the need to focus on mental health, burnout and coping with traumatic incidents. They felt that the focus should not only be on patients, but rather on integrating patient care with self-care and organisational strategies to enhance staff wellbeing:

"A mental health module would be great as we are seeing huge numbers and can have the same difficulties with imaging as we do with other groups who have additional needs."

"A module relating to the psychological perspective how professionals can reduce this effect or rebuild the key emotions to continue to allow themselves in the patient's positions metaphorically, as a type of 'recentering staff to empathise' module."

In some topics participants felt there were some gaps that would be useful to cover to facilitate a holistic understanding of the topic:

"Increase the time for MS [multiple sclerosis] patient care, so more aspects of patient care could be highlighted."

"How to sensitively manage pregnancy checks for radiation-based imaging on patients that are trans males, who take testosterone however, they still have their female reproductive organs."

One participant suggested discussing the workflow implications of PCC practices in the clinical setting with cognisance of the involvement of lead radiographers:

"The second stream was more patient needs-focussed e.g. dealing with an autistic person from waiting room experience to scanning experience… needs a lead radiographer to pre organise with the correct relevant information. I though this could be beneficial organisational advice to radiographers who attend the module."

To create a well-rounded, comprehensive module, participants suggested that managing and addressing patient complaints, as well as the factors that influence delivering and implementing a PCC culture in the clinical setting, are essential:

"Could you source a PALS staff member from a trust who could deliver some examples of patient complaints due to poor patient care during their imaging/ radiotherapy procedures? This would add some gravity of the impact of when care is suboptimal."

"Perhaps a session on the drivers that cause staff to deliver poor/suboptimal patient care…"

The participants suggested numerous module enhancements. These pertained to module length, access to speakers, and content-specific extensions. Participants' cultural, social and professional backgrounds, and career stage, are bound to influence their experiences and perceptions about the module [46,47]. This is evident in our study. All participants were qualified clinicians, academics, and researchers with diverse educational and employment backgrounds. Some faculty members are also international. It is also not unreasonable to argue that the suggestions made by participants in our study are practice-informed, based on prior experiences as well as the new knowledge they gained and interactions in the classroom [48]. Participants suggested that there should be end-of-day discussions to reinforce learning, as well as conversations about radiographer needs for the adoption and implementation of PCC practices, as well as the impact of this on them. These suggestions emphasise the need for debriefing and emotional

assistance to reinforce learning. Additionally, it underscores the need to enable radiographers to recognise the emotional labour of PCC and its possible detrimental effects on workplace well-being. This can then allow participants to make sense of the new knowledge gained and reflect on its impact on their future practice [14,49,50]. Invoking DOI theory, one can argue that the participants reflected on the current module relative to their prior educational and professional experiences. This resulted in the identification of remaining gaps in their knowledge and skill set that impede their capacity to fully and effectively implement PCC in their practices. This may hinder participants from implementing what they learnt in this module, as they may perceive PCC implementation as too complex and incompatible with their values, past experiences and needs [25].

Theme 4. Becoming champions of person-centred care: reflections on module impact

Participants reflected on the immediate and potential future impact of the module on their clinical, educational and research practices. Participants highlighted enhancement of their knowledge and skills for advocating, adopting and implementing PCC practices in their respective contexts. They also gained a new appreciation for PCC and learnt the value thereof in improving patient experience and safety, and service quality. They also identified that PCC necessitates collaboration:

> *"The course provided me with an opportunity to step away from the clinical practice I was familiar with, learn about new approaches to providing person-centred care, and discover tools that I was previously unaware of but that can enhance the care I provide [sic.]."*

> *"… I would be a bit more mindful of person-centred care in my practice."*

> *"…that patient care is personalised and how small things can make a difference. The module had increased my awareness of factors that can affect an individual's experience during imaging…"*

> *"I will recommend it to my co-worker as care often involves a multidisciplinary approach, fostering better collaboration among healthcare professionals."*

One participant also reflected on what person-centred care may look like in a research context. They recommended providing research participants with feedback to demonstrate the significance of their involvement:

> *"As a researcher, the importance of dissemination of research to participants. When participants give up their time, what do they get? They want change. They want their involvement to count for something…We have a responsibility to them and to make sure their work is of benefit to the community they represent."*

Some participants indicated their plans to implement their learning in their respective environments to promote a PCC culture:

> *"I already have a project running to try and improve our department for pts with additional needs, so I will use everything I've learned to help with this project and will be disseminating so much of the information to my colleagues to help inform their practice. I have also realised that sometimes less is more, for example, persons who are hard of hearing do not expect everyone to know sign language."*

> *"I would definitely try to implement most of the knowledge I gained through the course into my clinical practice. Managing neurodiverse patients is challenging, and I am eager to create a more friendly and efficient workplace for their benefit."*

Given the profound impact of the module on the participants, who are all qualified practitioners, they felt that this is a module that should be imperative to all undergraduate and postgraduate radiography students:

> *"In education I feel Person Centred Care should be introduced in the core BSc programme."*

DOI theory posits that people adopt innovations if they possess adequate knowledge, a positive attitude, and perceive the innovation as yielding meaningful impact, easy to implement, and congruent with their own values, needs and past experiences [25]. The participants' narratives show that the module assisted them in adopting PCC practices in their respective contexts. Notwithstanding the areas identified needing enhancement, the module has meaningfully contributed to stimulating a culture change in radiography towards PCC-oriented practices in the clinical, educational and research domains. Thus, providing baseline evidence that the participants in this study will likely become keen adopters of PCC practices. Whereas some may become innovators in their own contexts to facilitate context-specific PCC-focused culture changes [25]. This can be operationalised by providing simulation, reflective or peer-learning activities during the module to allow for safe experimentation with PCC behaviours and skills before implementation in clinical context. This aligns with DOI theory's observability and trialability factors. The participants' positive evaluations of the module may also be ascribed to the fact that the participants have a good baseline understanding of what PCC entails, and this module facilitated reinforcing prior knowledge and allowed for building on this existing knowledge. This is congruent with DOI theory insofar as existing knowledge can influence whether individuals adopt innovations [25].

Limitations

This work represents the perspectives of 10 students and six faculty members who were involved in the PCC module we evaluated. This does not represent the experiences of all students and faculty members who were involved in this module, and the findings are thus not generalisable. Additionally, faculty members' perspectives may potentially be subconsciously biased due to their institutional affiliations and dedication to PCC. The qualitative survey method did not allow for further

probing of participants' responses, which limits the breadth and depth of the data and its interpretation.

Recommendations for future module iterations

Future iterations of the module could be enhanced by extending the duration of group and speaker discussions. More interactive learning strategies, such as simulation-based or scenario-based learning activities, role plays, and quizzes, could enhance engagement and reinforce knowledge among participants. It could also reinforce reflective integration of theory and practice. These active learning tactics can help learners apply new knowledge with instant formative feedback. This may enhance practical application and consolidation of the knowledge and skills gained from the module. Although this was touched upon within this module as part of a debate delivered at the end of the teaching sessions, there is still a need to expand and more specifically address the emotional labour associated with PCC for radiographers and ways to maintain workplace wellbeing for staff retention.

Conclusions

Participants experienced the PCC module meaningful as it provided the requisite theory and strategies to implement PCC in their work contexts. Participants also indicated their commitment and renewed motivation to act as PCC champions in their respective contexts. DOI theory provided a useful theoretical premise for the interpretation of participants perspectives to postulate how likely they are to adopt and implement the knowledge and skills gained form this module in their respective clinical, academic and/or research contexts.

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