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RESEARCH ARTICLE

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Becoming partners in rehabilitation with patients in intensive care: physiotherapists' perspectives

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ABSTRACT

Purpose: Person-centred care is widely accepted as being central to high quality care, but little is known about how physiotherapists implement person centred rehabilitation in Intensive Care. This study explores the self-reported experiences and interpretations of physiotherapists delivering person-centred rehabilitation in this setting.

Methods: A qualitative study using Interpretative Phenomenological Analysis explored the lived experiences of physiotherapists and students who have worked in Intensive Care. Three focus groups, with four participants in each, were conducted. Data were fully transcribed, analysed and managed using NVivo software.

Results: Participants shared similar interpretations about the principles of person-centred care. Operationalising person-centred rehabilitation during early recovery was not easily achievable. As the person's clinical condition improved, participants moved away from routine physiotherapy and their practice became more person-centred through the development of a partnership. Participants connected as humans to understand the person and respond to their needs within a culture that valued person-centred care.

Conclusions: Physiotherapists aspire to develop a partnership with their patients by connecting on a human level with them and addressing their biopsychosocial needs. Physiotherapists with experience of developing patient partnerships influence the culture of the Intensive Care team and are role-models to facilitate collaborative person-centred activity in others.

> IMPLICATIONS FOR REHABILITATION

- Physiotherapists can move from a biomedical approach towards becoming partners with patients in an Intensive Care Unit (ICU) as they become cognitively aware.
- Physiotherapists become person-centred by connecting as humans to the patient and moving towards a biopsychosocial approach that addresses the physical, psychological and instrumental needs of the patient in ICU.
- When aiming towards a person-centred approach on ICU, physiotherapists contribute to a culture that nurtures the unique patient and works collaboratively with the family and the health care team.
- Experience working with patients in ICU, allows physiotherapists to identify opportunities to be person-centred and facilitate other team members in becoming so.

ARTICLE HISTORY

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KEYWORDS

Person-centred; physiotherapy; rehabilitation; Intensive Care; qualitative

Introduction

Physiotherapists play a key role in the multidisciplinary team to support patient recovery in an Intensive Care Unit (ICU) and improve quality of life, physical function, muscle strength, and decrease hospital and ICU stay [1,2]. However, a recurrent barrier to rehabilitation for patients cared for in ICU is their refusal to take part in rehabilitation [3]. Person-centred care has been identified as an ethos which all healthcare providers should apply in their practice [4–7], including physiotherapists [8,9]. In the acute care setting, person-centred interventions are reported to improve staff experiences and the quality of care provided [10]

Two models and a conceptual framework have been developed to inform person-centred physiotherapy [11–13]. All of them

identify the individual characteristics of the physiotherapist, the professional and patient interaction or dyad, and the environment in which physiotherapists work, as being influential. However, applying these approaches in the ICU setting is challenging because of the setting itself and impaired communication between the physiotherapist and patient.

Understandably the priority in the ICU environment is to preserve life at all costs, but this can be a potential barrier to person-centred care [14]. Patients in ICU valued quality of life outcomes in conjunction with measures of mortality [15] and person-centred care would address goals important to individuals. Patients in ICU are often unable to communicate because of medical and pharmacological interventions [16] which often makes them feel alienated from reality [17]. So, implementing effective

interactions between them and health professions with the purpose of person-centred care is challenging.

Person-centred care is a concept that features in healthcare strategies and models of care, but it remains ill-defined in relation to physiotherapy in ICU. Theory development about person-centred care in ICU from nursing perspectives can inform physiotherapy. The importance of professional competence and developing a partnership with the patient as their level of consciousness alters has been noted as important in person-centred nursing [18,19]. Findings from this research can inform physiotherapy practice but there is a lack of research from the unique perspective of the physiotherapist. This study aims to address this gap by exploring the experiences and interpretations of physiotherapists and students about the delivery of person-centred care in ICU settings.

Methods

Design

This qualitative study was conducted using an Interpretative Phenomenological Analysis (IPA) methodology as described by Smith et al. [20]. IPA aims to make sense of the lived experience of participants; in this study, their recall of providing person-centred physiotherapy on ICU. We selected this methodology because we wanted to listen to and explore physiotherapists' examples of care for patients in ICU alongside their sense making in relation to person-centredness. This methodology allowed us to interpret their experiences and sense-making to uncover how person-centred physiotherapy can be operationalised in this setting. The consolidated criteria for reporting qualitative research (COREQ) informed the study design [21]. A series of three focus groups were conducted as an accepted data collection method for IPA [20]. We chose focus groups rather than individual interviews to capture participants individual reported experiences which were enhanced by peer-to-peer interactions [22] from physiotherapists with similar responsibilities when working in ICU. Through the data collection method, shared group interpretations were sought to explore how the amount of experience may affect interpretations and discussions.

Recruitment and participants

Ethical approval was gained from Research Ethics Committee; West of Scotland (REC reference 19/WS/0192) and the University of Salford (Reference HSR1819-132). A purposive sample of participants were recruited from one University and a regional network of physiotherapists within Northwest England. Study information was circulated via email distribution lists. Eligible participants were English-speaking physiotherapists or student physiotherapists, who had worked in ICU. We chose to include novice to expert physiotherapists to understand a range of experiences.

Data collection

The focus group interviews were conducted from February to March 2022 using the Microsoft Teams app. Virtual meetings allowed participants to join from a variety of geographical locations. The focus groups took place following the Covid-19 pandemic and although at the time of data collection, no restrictions were in place in the UK, it did affect the planning for data collection.

A draft topic guide for the focus groups was constructed informed by the experiences of the research team and guided by IPA ideology [20]. It was reviewed by a service user, physiotherapist, and experienced qualitative researcher. Their feedback was integrated into the next version (see Appendix A) which was then finalised after piloting with a group of three physiotherapists.

The focus groups were facilitated by a moderator, who guided the discussions using the topic guide, and an observer who noted group dynamics and monitored the chat function. Three researchers conducted the focus groups, all were physiotherapists. The focus group interviews lasted between 60 and 90 min and were video recorded and fully transcribed verbatim. Field notes from moderators, observers and data collected in the chat function were included in the data analysis.

Data analysis

The data analysis process was informed by IPA [20]. Three researchers contributed to the data analysis. The lead author (HC) is an academic physiotherapist with ICU experience. The other authors are a practicing physiotherapist and an academic nurse, both with ICU experience. Table 1 outlines the approaches implemented to support the quality of the study.

Each focus group was considered individually, and interpretations attributed to the individual group to create personal experiential themes. As interpretations from individuals within the group would be affected by others within it, interpretations were attributed to the whole group. Two researchers (HC and DD) independently interrogated the transcripts from each focus group, line by line, to identify and develop descriptions and interpretations. Discussions then took place between all three researchers to explore similarities and differences in the descriptions and interpretations to reach a consensus. Developing ideas and concepts evident across transcripts were discussed and compared. Areas of convergence and divergence were explored leading to the development of experiential themes which were reviewed by the research team and compared to the original transcripts. Following this, a further idiographic and linguistic analysis was conducted and compared to the theme structure. The iterative process of moving back and forth between the individual and the whole ensured the interpretations were derived from both the participants and researchers. NVivo 12 was used to manage and retrieve the data.

A summary of the main findings was shared with participants if requested but member checking did not occur because of the interpretative nature of the study [23]. An advisory group, which included a physiotherapist, was consulted to evaluate whether study findings and descriptions were recognisable.

Results

Eight qualified, and four student physiotherapists, provided written consent to participate. Participant characteristic and group details are available in Table 2. The sample size is in keeping with IPA methodology to allow an in-depth and detailed exploration of the rich data gathered by participants [20].

Figure 1 provides a model explaining the relationship between the key themes and sub-themes that characterised the data set (additional data supporting the themes and subthemes is available as a supplementary file). Theme 1 illustrates how participants adapted their care across a continuum which moved from a biomedical approach to care and rehabilitation, to becoming partners with the patient in ICU, as their clinical condition improved. As patients regained consciousness and became cognitively aware of themselves and their body, the physiotherapists reported adapting

Table 1. Methods to Enhance rigour in the findings.

Credibility	Investigator triangulation – the collected data was analysed line by line by two researchers (HC and DD) independently. Coded data and interpretations were compared to come to a consensus. A third researcher (FA) independently read transcripts and a series of meeting were convened in which all three researchers discussed the coding frame and themes. Particular attention was given to instances where there was divergence in concepts across interviews.		
	Peer debriefing – FA and AW (attributed within the acknowledgements) were available during the study for debriefing after interviews, guidance on research conduct and data analysis processes specific to IPA.		
	Advisory group – the data collection tool (the focus group topic guide) was presented to this group and amended following comments to ensure credible data was collected. The findings were presented to the advisory group for comment on how recognisable they were.		
Transferability	Participant descriptions – relevant descriptions of the participants are available in the Participants section and Table 2. Descriptions of setting – a description of the location of gained experiences are given in the Participants section.		
Dependability			
Confirmability	Practising reflexivity – details of the research team in relation to the study topic is provided. The philosophical orientation of the study is also provided. The lead researcher (HC) kept a reflexive journal throughout the study to recognise interpretations and thoughts emerging from the data as well as those emerging from prior experiences or theory (fore-structures). The research team reflected in how their backgrounds and prior experiences could potentially influence the data analysis. Decision trail audit – a decision trail was kept during the analysis process and referred to throughout the process by researchers.		

Table 2. Details of participants and allocation to focus groups.

Focus group	Participant	Role/Job title	Responsibilities when working on Intensive Care
Focus group 1: Moderator – TB (attributed within	A	Student physiotherapist & therapy assistant	Involved in the care and management of patients under the supervision of qualified
the acknowledgements)	В	Student physiotherapist	physiotherapists. They did not act autonomously.
Observer – DD	C	Student physiotherapist	Considered Novice to Advanced Beginners [50].
	D	Student physiotherapist	•
Focus group 2:	E	Physiotherapist	Qualified physiotherapists and autonomous
Moderator – HC	F	Specialised physiotherapist	practitioners. Responsible for the care and
Observer – DD	G	Physiotherapist	management of patients in Intensive Care but
	Н	Specialised physiotherapist	supported by more experienced team members. Considered Competent to Proficient [50].
Focus group 3:	1	Team Leader Physiotherapist	Qualified physiotherapists and autonomous
Moderator – HC	J	Clinical Specialist Physiotherapist	practitioners with considerable experience of
Observer – DD	K	Highly Specialised physiotherapist	working in Intensive Care. Responsible for the
	L	Highly Specialised physiotherapist	care and management of all patients in Intensive Care through the support and supervision of less experienced team members. Considered Expert [50].

their approach and using strategies to empower the patient. Participants who had more clinical experience working in ICU settings seemed to be able to initiate more person-centred activities, leading to greater partnership in healthcare delivery. Themes 2 to 4, described below, provided the foundation to the overarching theme 1 and facilitated becoming partners in rehabilitation.

Becoming partners in rehabilitation

Participants sensed a shared partnership at the beginning of the patient's stay on ICU was not possible as the patient was critically ill and not aware of themselves. In this scenario, participants reported that they used their professional knowledge to guide their decisions which were made in the patients' best interest. Participants used a biomedical approach and recognised that care did not involve the patient as an active partner. At this stage, participants indicated that physiotherapy was rather routine or formulaic. They explained that when patients are not cognitively aware, care cannot be person-centred.

But, on the ICU you can't... you can't always trust what the patient is saying because of the fact that they may be delirious, they may be fearful, they may be anxious, they may be worried, they may be just tired... if you were blindly patient centred, you would be actually causing them harm [participant B; student physiotherapist]

This suggests that physiotherapists feel the need to be in control when the person is not cognitively aware and making what they deem as decisions in their best interests. Participants were keen to emphasise that care was still individualised at this biomedical, or routine stage, as it has the "person at the centre" (participant H; specialised physiotherapist). There was no suggestion that the person or their loved ones were involved in the decisions about care or goals at this point. The participants' use of words reinforces their control, as the words used indicated that physiotherapy was something that was done to the person.

I was put in charge (of) her (participant D; student physiotherapist)

He just wasn't on board with (it) at that time (participant H; specialised physiotherapist)

These words indicate that participants were in a position of power and that physiotherapy was something the patient passively received. Therefore, when the person was not cognitively aware of themselves, although physiotherapy is individualised to the unique human, control remains with the physiotherapist.

When participants recognised the patient was becoming cognitively aware, they reported using activities to share power and decision-making about healthcare. This was a gradual journey, and they suggested patients needed guidance when they were not aware of the possibilities. Interpretations suggest that goal setting and decisions about care were physiotherapy focussed initially. However, when the patient becomes cognitively aware, participants reported using their skills to empower and involve the person in their own healthcare.

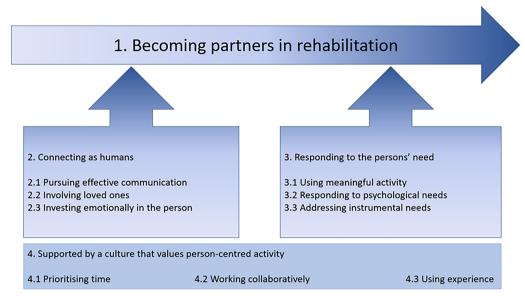


Figure 1. Model of the themes describing how physiotherapists moved towards becoming shared partners with the person in Intensive care.

...Really simple examples of... do you want to sit out today or do you want to do the exercise bike. Or do you want to do nothing? Or... what do you want to do today? What's your physio thing today? [participant I; team leader physiotherapist]

In this quote, the participants describe a movement of control from the physiotherapist towards the person receiving ICU care. Although not explicitly stated in all focus groups, this was apparent in the experiences shared within them. More experienced participants were able to articulate the move to becoming partners with patients more explicitly than less experienced participants and described "a two-way relationship" (participant J; clinical specialist physiotherapist). This might indicate that the physiotherapist is on a journey from formulaic and routine physiotherapy that is done to patients, to an approach which is a partnership. The more times a physiotherapist undertakes this journey, the easier they can navigate towards sharing power. Participants enjoyed being person-centred and more creative in physiotherapy and move away from the routine. Person-centred activities were perceived as doing "the nice things, the extracurricular" (participant J; clinical specialist physiotherapist). With more experience of moving towards becoming shared partners with patients, the journey was recognised and articulated by the participants.

The struggle that the person is undertaking to escape from being trapped in ICU arose from the focus groups. The essence of this arduous journey and the comparisons to travel was apparent in the words used by participants. Participants viewed the person as being trapped with "cabin fever" (participant F; specialised physiotherapist) and that physiotherapy can help them to see "the world is still there" (participant E; physiotherapist). Participants perceived their role to facilitate this journey and make it as tolerable as possible and "make their stay better" (participant K; highly specialised physiotherapist).

The findings indicate that participants believe that patients in ICU care move from a position of not being cognitively aware, and therefore a passive recipient of care, to being able to contribute to decisions about their rehabilitation. The participants were on a journey alongside patients; from routine physiotherapy in the patients' best interests but within the physiotherapists' power, to person centred rehabilitation which arises from sharing power.

Connecting as humans

In their journey towards becoming partners in rehabilitation, participants connected as humans to patients in ICU. This connection allowed them to understand the person behind the patient and recognise where they were on their arduous struggle through ICU. They indicated they needed to be human to understand the human in ICU. When discussing an experience when they were not partners with the patient, a participant described not being themselves in the relationship.

Sometimes... glimmers of my personality would come through, but I was more oriented around... there being no silences [participant B; student physiotherapist]

The participant emphasised the importance to be "real" in the relationship to create a connection with the person. Participants reported using simple socially accepted interactions to build the relationship which would nurture the human connection. To see the human behind the patient, terminology was deemed important, and participants perceived the importance of moving away from using the word "patient".

It's basically treating the patient how they should be treated as a human being and not as a patient [participant A; therapy assistant and student physiotherapist]

(A) really big push for me lately has been remembering that patients are not patients, they're people... I've banned the word patient [participant I; team leader physiotherapist]

The word "patient" implies a person only at the point of receiving care, and so using different terminology could be seen as an attempt to see the person and human being. Their understanding of the unique person was apparent in their examples of physiotherapy shared within focus groups. They described instances when they provided person centred physiotherapy as being an "unusual scenario" (participant J; clinical specialist physiotherapist) or for not "your typical patient" (participant D; student physiotherapist). By using these words, the participants indicated they understood aspects that made these patients unique. It may also suggest that moving towards becoming partners is more apparent with people who had complex rehabilitation

needs. Therefore, the journey may be facilitated by need, as becoming shared partners facilitated the unique patient's struggle towards recovery.

On recounting experiences of being person-centred in Intensive Care, participants demonstrated awareness of the persons' physical, psychological, and social situations that made them unique. A participant discussed a patient who had multiple physical, psychological, and social challenges when entering ICU for planned surgery:

We felt very, very strongly that this individual needed people to understand the person behind that sedated person in ICU... So... we videoed him and he did a piece talking to camera, we videoed it on our iPad.... And then we left the iPad by his bedside on ICU so that everybody could look at that so he could introduce himself to the staff that were looking after him every day, even before he was awake. [participant J; clinical specialist physiotherapist]

Making this connection ahead of planned admission meant that the health care professionals had seen him as a person and human before his clinical condition made it difficult to communicate with him. This allowed the physiotherapists and health care team to appreciate the journey they needed to undertake. Prior understanding of patients cannot usually be gathered directly, as ICU admission is often unplanned. Therefore, understanding must come from communication with the patients whilst they are in ICU or from loved ones. The human connection involved emotions which required an investment made by participants.

Pursuing effective communication

To initiate the connection between humans, participants indicated they pursued effective communication using whatever methods the patient could access. For some, this was a human and caring reaction to the patient. When reflecting on the beginning of a connection and communicating with a patient, a participant was human in their response.

I would take her hand just to reassure her. At the beginning when I met her... she just reached for my hand, and that was the initiation of our relationship (participant D; student physiotherapist)

From their reported experiences, it was apparent that participants actively sought a way to understand the patients' communication attempts. They gained an understanding of the patient to identify this method; for example, their preferred language or using technology to find an effective method. Once identified it enhanced the connection between the two humans and their understanding of the patient further. When communication is not effective, participants could not address concerns or worries, and the connection was broken. A participant recounted an experience they felt was not helpful to the patient or person-centred.

...he had a learning disability, and he was non communicative because of that... he had a tell, and when he touched his chin that meant he was scared, he was frightened, he wanted to stop. But we weren't aware of that... and he was telling us throughout the first session... I'm scared and frightened, but we didn't know [participant E; physiotherapist]

This experience demonstrated the disconnect between the physiotherapist and the patient due to a lack of effective communication. The connection between the patient and physiotherapist was not formed and the journey towards becoming shared partners impossible.

Involving loved ones

When the person in Intensive Care is not cognitively aware or before effective communication is established, participants discussed connecting with family and loved ones. Although, as mentioned previously, loved ones were not involved in decision making, this was an attempt to understand the patient in ICU before they could connect to them directly. Medical details can be gained from the team surrounding the patient but contact with the people who know them best was required to understand the person. Participants recognised the importance of pursuing a connection to the family and actively sought this information.

We have to... piece it together through, either from them when they're coming round or from family members who usually aren't visiting at the moment, so it's over the phone [participant K; highly specialised physiotherapist]

By involving the people who knew them before the ICU stay, participants began to understand the rehabilitative struggle the patient was undertaking.

Investing emotionally in the person

Participants connected as humans to patients in ICU and emotionally invested in them. They gained rewarding feelings from this connection. Participants overwhelmingly recounted satisfaction when they connected with patients and facilitated their rehabilitative journey. This satisfaction arose from caring for the person and seeking to do their best for them. Adversely, participants recounted feelings of anger, guilt, and upset if they did not facilitate patients' recovery. These feelings indicate that participants were emotionally invested and wanted to provide quality care for ICU patients.

Participants empathised and appreciated patients as they made human connections with them. For some, this resulted in them liking the patient, which was apparent when they recounted their experiences and used terms that indicated they liked them. This was not universal, as one participant indicated they did not approve of the actions of the patient who they made a connection with.

Unfortunately, he did pass away, because he got too poorly, which was a shame because like I say, it was (the) one and only time it wasn't self-inflicted [participant A; therapy assistant and student physiotherapist]

This experience indicated the participant did not like the actions that had led to previous admissions to ICU which were self-inflicted. Despite this, the participant was able to form a human connection and emotionally invested in them. Liking could be a consequence of the connection between humans rather than a prerequisite.

The emotional investment did have consequences for participants, both positive and negative. As participants were human in their relationships, their reactions were human as well. One participant articulated this when discussing the impact on physiotherapist when being person-centred.

it's a bonus in a lot of ways, but it's also a bit of a curse in many ways as well. I can think of countless patients who I've got to know guite well... understand their likes, their dislikes, their interests... how they like their cup of tea... little things, and got to know them really well. And then they've been intubated and they've... passed away [participant I; team leader physiotherapist]

The participant related the impact when patients do not survive their stay on ICU and their journey is not what they would



have hoped for. Conversely, when patients' rehabilitative recovery through ICU is deemed successful, there is joy. Most participants were proud of their part in the patients' journey and recognised the joy it created in them and others in the health care team. Strong positive emotional responses were recounted when their emotional investment had been successful.

I feel almost guilty because it probably gave me as much as I think it gave him... it felt (a) real privilege to be able to do that for a patient [participant K; highly specialised physiotherapist]

And there wasn't literally... There wasn't a dry eye. We were all balling our eyes out... It was ugly crying, as well [Participant J; clinical specialist physiotherapist]

Because participants created human connections with patients, when patients reacted strongly to achievements, so did they. The human connection and emotional investment in the patients' rehabilitation journey, created a sense of purpose for the physiotherapist. One participant articulated this:

it was one of those episodes where... Yeah, that's why we do our job [participant J; clinical specialist physiotherapist]

Responding to the person's needs

Participants reported responding to the unique needs of the patients in ICU to facilitate their arduous journey from being trapped in ICU to recovery. Both their professional knowledge and understanding of the patient was required to achieve this. When discussing person-centred care, participants discussed how they responded to the unique needs of patients in all three focus groups.

it's very much focused on what they need at that point. What they need in the near future and how you're going to help them get that [participant A; therapy assistant and student physiotherapist]

my understanding of patient centred care, it's when the care you provide to a patient is tailored as much as possible to the patient [participant F; specialised physiotherapist]

to understand what (are) their wants and their needs... Not just knowing what somebody likes and preferences were beforehand, it's thinking 'what do they want now? [participant I; team leader physiotherapist]

Participants recognised that responding to the patient's needs would facilitate their rehabilitative journey through ICU, including physical, psychological, and instrumental needs. As some actions to address needs were made using professional knowledge, the participants regained control. By being unique to the person and beginning to share decisions, the physiotherapist moved towards becoming partners in rehabilitation with patients.

Using meaningful activity

Participants recognised the physical needs of the patient in ICU and discussed using activity that was meaningful to meet their physical needs. Participants noted ways they tailored their rehabilitation to the interests of the patient.

he liked playing golf, and one of the other physios in our team has... a little pitch and put thing for at home. So I asked her to... to bring it in. And we... we took it up to the patient... we (were) playing golf at his bedside. And I think it's probably the longest he's stood up for in about 6 months [participant G; physiotherapist]

The participants used activities of interest to the patient, to interest them in their physical rehabilitation and make their arduous

journey more tolerable. Although not all experiences recounted indicated that decisions about activity was shared, it was unique to the patient and moved away from routine physiotherapy. One participant celebrated how meaningful activity outside of routine physiotherapy can result in significant rehabilitation gains.

I got to the bedside, found her in a chair, connected to the ventilator with a frame nearby, she had a speaking valve on..., and she was making Christmas cards with the nurse at the bedside. Apparently one of her big joys was crafting and she always made her own Christmas cards and sent them out to relatives and friends... I don't know if she fully realised how amazing she had been. (The) nurse had engaged her upper limb function.... She got her cognition,... she was remembering the addresses of her friends and family. She was using the speaking valve to chat through to the nurse who she's going to write to, and obviously doing laryngeal rehab. And she transferred in and out of the chair and, I just... Yeah... It was one of the most fantastic examples I'd ever seen [participant K; highly specialised physiotherapist]

The participants recognised the importance of using the interests of the patient in ICU to guide their physical rehabilitation. By individualising rehabilitation to the patients' interests and previous social activities, participants recognised that it assists the patient on a more pleasant recovery.

Responding to psychological needs

Participants discussed the impact of emotions and psychological distress on patients in ICU. Their shared experiences indicated they responded to this need during their physical rehabilitation. One participant articulated this and expressed the importance of being more creative and moving away from the ICU.

The patient may be feeling quite low in mood, especially when they stay for a while on intensive care unit... just getting out of bed and maybe doing simple walking is just not enough for a patient... leaving their room or the environment, (it's) very important for them to progress in their care or rehabilitation [participant F; specialised physiotherapist]

Participants recognised the impact of mood on the patients' ability to move towards recovery which they are trying to facilitate. There was an indication that this impacted on the patients' ability to become shared partners. The importance of trust was articulated by participants and making rehabilitation specific to the patient was a way to nurture this.

As the patient progresses towards recovery, participants observed emotional responses in them. Participants recounted patients' reactions when they were progressing on their rehabilitative journey.

He found it guite emotional and a bit overwhelming [participant L; highly specialised physiotherapist]

we've had quite a few people standing for the first time and then they just burst into tears... they're not always sure why they're crying [participant J; clinical specialist physiotherapist]

Participants recognised these emotional responses and recognised that through their connection as a human it affected them also. By responding to the emotional needs of the patient in physiotherapy, the connection between them is strengthened and the movement towards becoming shared partners facilitated.

Addressing instrumental needs

Participants perceived that the patient on ICU have needs beyond physical and psychological issues during their stay. These instrumental needs assisted them to make their day to day lived



experience more tolerable. Participants recognised these needs by stepping away from their professional role and being human.

We've guite often taken washing home for people. They've been in months and months and months, and they've got no clean pyjamas. We've done washing for people...You go to the shop; you buy them a can of coke [Participant J; clinical specialist physiotherapist]

Shared experiences which demonstrated participants were being a human in the relationship were more apparent in the focus group with more experienced physiotherapists. Experience in their role appeared to give participants more confidence to step away from rehabilitative activity to address instrumental needs. They also recognised their social role when visiting people in ICU.

And we had one lady write us a gorgeous card and she put in the card 'd'you know when I couldn't have visitors, you became my family.... But I don't think we realised how much impact that it had on her [participant J; clinical specialist physiotherapist]

By recognising and using their role to address the instrumental needs of the patient, participants expanded their professional role in rehabilitation to consider goals purely to aid comfort. By acknowledging and responding to instrumental needs, participants recognised the unique patient which was an important step to becoming partners in rehabilitation.

Supported by a culture that values person-centred activity

A culture that recognises the patient in ICU as a unique person, supported participants to move towards becoming partners with the patient. If the culture within the team places importance on empowering patients, physiotherapy can move away from a biomedical approach. When participants reflected on what made it easier to be centred on patients, the team valuing the activity was perceived as important.

I think the team was a great factor. I've worked with great teams, obviously on all my placement, but I think this (ICU)... it was all about patient's goals [participant D; student physiotherapist]

A culture which placed importance on everyone in the team seeing the human and recognising their needs, facilitated participants' activity to address them. One participant reflected positive and negative experiences within the team.

So, the nurses absolutely loved having the iPad and a video, and knowing who... exactly who they were looking after when he woke up with a trache(ostomy) in and couldn't speak [participant J; clinical specialist physiotherapist]

they're finding reasons that they don't feel that person can get out of bed and... join in with the rehab. I think because they're just overwhelmed by the scenario that's in front of them [participant J; clinical specialist physiotherapist]

All participants reflected on the impact of the culture within the team and how it affected their ability to connect as humans to patients. A supportive team was in the background of experiences where participants recounted activity which aimed to be person-centred. The culture within ICU impacts on how time, teamwork, and experience can be used in the physiotherapists' journey to connect to the human and become shared partners in rehabilitation.

Prioritising time

From their recounted experiences, it was apparent that participants invested time to connect with patients and respond to their needs. Participants perceived that such activity was easier when more time from several health professionals was available and allowed participants to move away from routine physiotherapy. Having time was precious and a "luxury" (participant K; highly specialised physiotherapist) and allowed creative approaches to physiotherapy that facilitated the patients' unique recovery journey. Time pressures resulted in care that was not perceived as being person-centred.

I can think of times... when you're spread very, very thin. Is the person-centred care more important than going and treating four or five of the patients that I might be able to see in that time, no [participant K; highly specialised physiotherapist]

I do think in a busy environment... because of this whole time constraint... I have seen people doing a quick... 'I'm just going to do a quick suction' [participant D; student physiotherapist]

When time to connect with patients is not prioritised, becoming partners in rehabilitation is difficult. Time was a scarce resource, and the culture within the team impacted on how activity to connect and share power is prioritised. If the team can support such activity, understanding the patient and addressing their needs is achievable.

Working collaboratively

Participants perceived a collaborative team-working culture that acknowledged the human as crucial to person-centredness. Participants in all focus groups recounted the importance of collaborating with others to address the patients' unique needs. In experiences where participants perceived they were providing person-centred care, the patient was at the centre of the team and their unique rehabilitative journey was the focus.

Participants recounted experiences when care was not centred on the patient which was caused by a lack of communication and collaborative team working.

a patient who didn't even have head control, certainly wasn't appropriate to be sat in a chair. I came on and he was sat in a chair, slouched badly... By a very silly omission, really, by lack of communication, and lack of MDT involvement [participant I; team leader physiotherapist]

We've come across guite a bit of resistance from some of the nursing staff, and it... I think it genuinely is, sort of, a deep-seated fear. And I think a bit of fear that we were going to come along and do some physio, move their patient, and then that was going to change their heart rate... it is going to change their blood pressure... That's a big area that we sometimes struggle with... when you turn up and see what nurses at the bedside, it can make or break your day (participant J; clinical specialist physiotherapist)

When the team did not work collaboratively, it hindered the movement to creative physiotherapy which responded to the patient's unique needs. A supportive culture from the multidisciplinary team allows activity to facilitate the unique patients' rehabilitation through ICU.

Using experience

More experienced participants were able to recognise and articulate the movement towards becoming partners with patients in ICU. Participants with more experience working in ICU, reflected on their responsibility to inspire others. They were more confident in being creative in their care and challenged the culture within the multi-disciplinary team.

we have a real big push from our medical and nursing colleagues to follow that formulaic pathway when actually it might not be the best thing for that patient [participant I; team leader physiotherapist]



We're also in a position where we can influence that decision, 'we can do this. We can make this happen. I'm going to speak to the right people and they're going to agree [participant I; team leader physiotherapist1

Participants with more years of experience, were able to recognise more opportunities to be creative in ICU and move away from routine physiotherapy. This was evident in the experiences recounted, where they were more likely to involve activity less focussed on physical rehabilitation or to take the patient away from the ICU environment. Less experienced qualified participants reported consulting more experienced colleagues to see further opportunities to be creative in their approach.

Student participants had a different perspective when sharing instances with more experienced physiotherapists. Their discussions implied that the qualified physiotherapists were gatekeepers to their activity and would allow it or not. A student reflected on not being able to complete activity that may address the patient's needs because their supervisor would not allow it.

my educator said 'no, we won't be doing that for him. There's nothing else we'll do for him, we'll just leave it at that'... I feel it's quite disheartening (participant C; student physiotherapist)

This implied that experienced physiotherapists are not only facilitators of activity to facilitate the patients' journey to becoming partners, but also the gatekeepers. Student participants implied they did not feel able to contradict more experienced physiotherapists.

From the shared examples of practice, it was apparent how experienced staff influence activity away from routine physiotherapy to address the patients' needs. Experienced participants influenced the culture as much as the culture affected them. Experience of working in ICU, allowed physiotherapists to recognise and utilise their influence rather than only being influenced by it.

Discussion

From research conducted in community and outpatient settings, it is apparent that physiotherapists need to better understand person-centred care in clinical practice [24] and adopt a stronger biopsychosocial approach to care provision [25,26]. However, little is known about physiotherapists experiences and interpretation of person-centred care in ICU settings. This study describes, for the first time, how physiotherapists perceive and attempt to deliver person-centred physiotherapy in ICU.

Findings showed that expert and novice participants shared similar views of person-centred rehabilitation and report moving towards becoming shared partners with the patient in ICU. However, it was apparent that the physiotherapist retained most of the control within the partnership. Studies exploring person-centred physiotherapy across other settings noted physiotherapists had more influence over decisions [27-30], and although physiotherapists embrace the concept in principle, barriers exist as they perceive a challenge to their professional role [31]. Despite this, Thompson et al. [32] noted that physiotherapists could move from a paternalistic approach to a person-centred one, in response to the patients' needs. From this study, it is indicated that physiotherapists working in ICU also began to share power, but the perceived barriers to the patients' involvement were caused by the communicative and cognitive impairments of the patient. Effective two-way communication with the patient is required to share power and decisions [29] and to understand patients' viewpoints [25] which can be challenging in the ICU setting.

The ideology within the ICU to preserve life [14] reinforces control within the health care professionals' power. In emergency situations, there is often not time to share power and decisions at the point of giving care and in order to achieve it in the ICU setting, advanced planning is needed. Following an ICU stay, patients have reported struggling to take on information when receiving care and they relied on the physiotherapist to make decisions and take control [33]. Participants in our study had reservations sharing decisions with patients who were not cognitively aware. For unplanned ICU care, we could learn from healthcare professionals from acute care settings who care for people with dementia as they experience similar barriers. Personal passports for the person with dementia entering acute care provide non-clinical information to health care professionals [34]. Health care staff have found that such strategies help to understand the patient and focus on their needs and allow person-centredness [35]. Adopting personal passports in ICU would consistently involve loved ones as they are integral to its development [36,37] and allow physiotherapists to understand the patient before they are cognitively aware.

Participants in this study indicated they connected as humans to understand the patient in ICU. Accounts differed between expert and novice participants, with novices focussing on ensuring effective communication to understand the patient, and experts focussing on understanding the patient and their motivation for rehabilitation. This has implications for physiotherapy educators in not only promoting novices to communicate effectively by using communication skills and communication aids, but also to link with carers and family members to understand the patient as a person. The connection and relationship between the physiotherapist and patient are key aspects of models and frameworks that guide person-centred physiotherapy [11–13]. The importance of getting to know the patient and what is meaningful to them has been discussed as integral to person-centred rehabilitation [38,39]. By connecting as humans, physiotherapists can understand the patients' drives and wishes. In planned ICU admissions, this connection can begin early, and video, audio or written information collected to enlighten physiotherapists and health care professionals about the patient and their wishes and preferences. The experience reported in this study, when a participant recounted using a video of the patient for this purpose, is an example of how it can be implemented successfully and allow staff to understand the patient and their complex needs. This preparation for a planned ICU stay would support a culture where the patient is central to care and rehabilitation, and a vital step towards person-centredness. The connection with patients was something that all participants strived for, and although there was an emotional cost, it did lead to job satisfaction.

All participants in this study responded to the unique needs of the patient in ICU to be person-centred. Physiotherapists working in other specialities have also utilised such methods and individualisation of care is an important aspect of person-centredness [40]. However, investigations that have focused on individualisation of treatment are unclear on how the individuality was determined [41–46]. Jesus et al. [12] states that care must be tailored to the patient beyond individualisation, which suggests that individualising is not enough to be centred on the person. The findings from this study have been able to expand on what more maybe necessary; namely connecting as a human and addressing their need outside of the rehabilitation remit. Participants in this study reported responding to psychological, social, instrumental, and emotional needs, as well as their physical ones.

The culture discussed in this study, aligns with the concepts of "environment" [11] and "microsystem" [12] within models

informing person-centred physiotherapy. The findings from this study indicate that the culture within the healthcare team acted as a barrier or facilitator when participants strived for person-centredness. Integrated working has been reported as an important requirement for person-centred care by health professionals working in ICU settings [2] which our findings concur with. However, time-pressures in health care settings impedes person-centredness [47] and staff to patient ratios need to reflect the demand within the ICU setting to facilitate care [2]. To allow for collaborative working towards person-centred activity, staffing levels and resources need to be sufficient to allow it to be prioritised and has implications on the planning of services and staffing. The findings indicate that physiotherapists in education and clinical practice, need to raise awareness of effective team working between health professions as an enabler to person-centredness in Intensive Care. Similar to previous research concerning person-centred activity in acute services, this study investigates activity at the micro level of delivery, and the impact of macro level implementation is required [10].

The experience of being a physiotherapist in ICU appeared to facilitate person-centredness within the team in this study. Our findings highlight the importance of senior staff supporting those junior to them in person-centred activity. Previous research concurs and suggest a lack of role models impedes person-centredness in health professional students [47]. Physiotherapists need to tinker or adapt rehabilitation within encounters to co-produce person-centred activity with the person [30]. The ability to react within encounters is therefore important, and experience of being a physiotherapist in ICU may facilitate more person-centred responses. The integration of person-centredness within higher education curricula remains fragmented and driven by individuals with a special interest [48] and a standardised strategy is needed for full implementation within curricula [49]. Using role models within practice can facilitate person-centredness in student physiotherapists.

Limitations

As a qualitative study, the findings arise from the interpretations of the research team derived from the self-reported experiences and interpretations reported in focus group interviews. The study participants were all working in one geographical location. However, key findings may be transferable to other settings with similar contexts. Further research studying the experiences of patients in ICU is needed to explore how they perceive physiotherapy in relation to person-centredness.

The Covid19 pandemic altered staffing levels and the culture of the unit which could negatively affect the capacity to provide person-centred care [2], and this may have affected the experiences and interpretations shared.

Conclusions

The way physiotherapists report providing person-centred physiotherapy in ICU has been detailed for the first time. When intending to be person-centred in ICU, physiotherapists move towards a partnership with the patient they are caring for. From the findings of the study, it is apparent that physiotherapists retain control initially because of the patients' communicative and cognitive impairments. However, they aim towards an approach which addresses the individual biopsychosocial needs of the patient. To recognise and address these needs, they connect on a human level with patients, as well as using their professional knowledge. These findings inform physiotherapists in how they can aim towards person-centred activity despite the barriers that exist in this setting.

Person-centred activity was aided by a culture that supported the unique patient in ICU, which was affected by physiotherapists, as well as affecting them. Physiotherapists with experience of working towards a person-centred approach, influence others and are an important facilitator in promoting this concept of care. These findings inform how person-centred physiotherapy can be facilitated by champions within practice who affect the culture of the team they work in.

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References

- [1] Kayambu G, Boots R, Paratz J. Physical therapy for the critically ill in the ICU: a systematic review and meta-analysis. Crit Care Med. 2013;41:1545-1554.
- [2] Twose P, Jones U, Bharal M, et al. Exploration of therapists' views of practice within critical care. BMJ Open Resp Res. 2021;8(1):e001086. doi: 10.1136/bmjresp-2021-001086.
- [3] Parry SM, Knight LD, Connolly B, et al. Factors influencing physical activity and rehabilitation in survivors of critical illness: a systematic review of quantitative and qualitative studies. Intensive Care Med. 2017;43(4):531-542. doi: 10.1007/ s00134-017-4685-4.
- [4] World Health Organization. Global framework on integrated, people-centred health services. Geneva: WHO; 2016. Available from: tinyurl.com/WHO-integrated-framework.
- [5] House of Commons Health Committee. Managing the care of people with long-term conditions. Vol. 1. London: The Stationery Office; 2014.
- [6] Ahmad N, Ellins J, Krelle H, et al. Person-centred care: from ideas to action. The Health Foundation; 2014. Available from: http://www.healthissuescentre.org.au/images/uploads/ resources/Person-centred_care_From_ideas_to_action.pdf.
- [7] Institute of Medicine. Crossing the quality chasm: a new health system for the 21st century. Washington, DC: National Academy Press; 2001.
- [8] The Chartered Society of Physiotherapy. Professional values and behaviours. 201. Available from: https://www.csp.org.uk/ publications/code-members-professional-values-and-behaviour.

- [9] The Health and Care Professions Council. Standards of conduct, performance & ethics. Available from: https://www. hcpc-uk.org/standards/standards-of-conduct-performanc e-and-ethics/.
- [10] Janerka C, Leslie GD, Gill FJ. Development of patient-centred care in acute hospital settings: a meta-narrative review. Int J Nurs Stud. 2023;15:104465.
- [11] Killingback C, Green A, Naylor J. Development of a framework for person-centred physiotherapy. Phys Ther Rev. 2022;27(6):414-429. doi: 10.1080/10833196.2022.2129157.
- [12] Jesus TS, Papadimitriou C, Bright FA, et al. Person-centered rehabilitation model: framing the concept and practice of person-centered adult physical rehabilitation based on a scoping review and thematic analysis of the literature. Arch Phys Med Rehabil. 2022;103(1):106-120. doi: 10.1016/j. apmr.2021.05.005.
- [13] Wijma AJ, Bletterman AN, Clark JR, et al. Patient-centredness in physiotherapy: what does it entail? A systematic review of qualitative studies. Physiother Theory Pract. 2017;33(11): 825-840. doi: 10.1080/09593985.2017.1357151.
- [14] Jakimowicz SL, Perry L, Lewis J. An integrative review of supports, facilitators and barriers to patient-centred nursing in the intensive care unit. J Clin Nurs. 2017;26(23-24):4153-4171. doi: 10.1111/jocn.13957.
- [15] Auriemma CL, Harhay MO, Haines KJ, et al. What matters to patients and their families during and after critical illness: a qualitative study. Am J Crit Care. 2021;30(1):11-20. doi: 10.4037/ajcc2021398.
- [16] Carruthers H, Astin F, Munro W. Which alternative communication methods are effective for voiceless patients in intensive care units? A systematic review. Intensive crit. Care Nurs. 2017:42:88-92.
- [17] Carruthers H, Gomersall T, Astin F. The work undertaken by mechanically ventilated patients in intensive care: a qualitative meta-ethnography of survivors' experiences. Int J Nurs Stud. 2018;86:60-73. doi: 10.1016/j.ijnurstu.2018.05. 013.
- [18] Jakimowicz SL, Perry L. A concept analysis of patient-centred nursing in the intensive care unit. J Adv Nurs. 2015;71(7):1499-1517. doi: 10.1111/jan.12644.
- [19] Cederwall CJ, Olausson S, Rose L, et al. Person-centred care during prolonged weaning from mechanical ventilation, nurses' views: an interview study. Intensive Crit Care Nurs. 2018;46:32-37. doi: 10.1016/j.iccn.2017.11.004.
- [20] Smith JA, Flowers P, Larkin M. Interpretative phenomenological analysis; theory, method and research. 2nd ed. London: SAGE Publications; 2022.
- [21] Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health Care. 2007;19(6):349-357. doi: 10.1093/intghc/mzm042.
- [22] Love B, Vetere A, Davies P. Should interpretative phenomenological analysis (IPA) be used with focus groups? Navigating the bumpy road of "iterative loops". Idiographic journeys, and "phenomenological bridges". Int J Qual Methods. 2020;19:1-17.
- [23] Birt L, Scott S, Cavers D, et al. Member checking: a tool to enhance trustworthiness or merely a nod to validation. Qual Health Res. 2016;26(13):1802-1811. doi: 10.1177/104973231 6654870.
- [24] Dukhu S, Purcell C, Bulley C, et al. Person-centred care in the physiotherapeutic management of long-term conditions: a critical review of components, barriers and facilitators. IDPJ. 2018;8:1-27.

- [25] Hutting N, Caneiro JP, Ong'wen OM, et al. Patient-centered care in musculoskeletal practice: key elements to support clinicians to focus on the person. Musculoskelet Sci Pract. 2022;57:102434. doi: 10.1016/j.msksp.2021.102434.
- [26] Hall AJ, Burrows L, Lang IA, et al. Are physiotherapists employing person-centred care for people with dementia? An exploratory qualitative study examining the experiences of people with dementia and their carers. BMC Geriatr. 2018;8:63-73.
- [27] Cameron LJ, Somervill LM, Naismith E, et al. A qualitative investigations into the patient-centered goal-setting practices of allied rehabilitation. clinicians working in Clin Rehabil. 2018;32(6):827-840. doi: 10.1177/0269215517752488.
- [28] Hammond R. Stenner R. Palmer S. What matters most: a qualitative study of person-centered physiotherapy practice in community rehabilitation. Physiother Theory Pract. 2022;38(9):1207-1218. doi: 10.1080/09593985.2020.1825577.
- Grenfell J, Soundy A. People's experience of shared decision making in musculoskeletal physiotherapy: a systematic review and thematic synthesis. Behav, Sci. 2022;12(1):12. doi: 10.3390/bs12010012.
- [30] Gibson BE, Terry G, Setchell J, et al. The micro-politics of caring: tinkering with person-centered rehabilitation. Disabil Rehabil. 2020;42(11):1529-1538. doi: 10.1080/09638288.2019.1587793.
- [31] Sjöberg V, Forsner M. Shifting roles: physiotherapists' perception of person-centered care during a pre-implementation phase in the acute hospital setting - a phenomenographic study. Physiother Theory Pract. 2022;38(7):879-889. doi: 10.1080/09593985.2020.1809042.
- [32] Thompson J, Gabriel L, Yoward S, et al. The advanced practitioners' perspective. Exploring the decision-making process between musculoskeletal advanced practitioners and their patients: an interpretive phenomenological study. Musculoskelet Care. 2022;20(1):128-136. doi: 10.1002/msc.1562.
- [33] van Willigen Z, Ostler C, Thackray D, et al. Patient and family experience of physical rehabilitation on the intensive care unit: a qualitative exploration. Physiother. 2020;109:102-110. doi: 10.1016/j.physio.2020.01.003.
- [34] Beattie F, Kerr L, Larkin J, et al. The components of personal passports for people living with dementia in an acute healthcare setting: an integrative review. J Clin Nurs. 2022;31(13-14):1907-1920. doi: 10.1111/jocn.15702.
- [35] Baillie L, Thomas N. Personal information documents for people with dementia: healthcare staff 's perceptions and experiences. Dementia. 2020;19(3):574-589. doi: 10.1177/1471301218778907.
- Osuoha P, Masoud SS, Leibas M, et al. "Getting to know them": person-centered care for patients with dementia in acute care. J Gerontol Nurs. 2021;47(5):37-44. doi: 10.3928/ 00989134-20210408-01
- Clark E, Wood F, Wood S. Barriers and facilitators to the use of personal information documents in health and social care settings for people living with dementia: a thematic synthesis and mapping to the COM-B framework. Health Expect. 2022;25(4):1215-1231. doi: 10.1111/hex.13497.
- [38] Olsen CF, Debesay J, Bergland A, et al. What matters when asking, "what matters to you?"—perceptions and experiences of health care providers on involving older people in transitional care. BMC Health Serv Res. 2020;20(1):317. doi: 10.1186/s12913-020-05150-4.
- [39] Melin J, Nordin Å, Feldthusen C, et al. Goal-setting in physiotherapy: exploring a person-centered perspective. Physiother Theory Pract. 2021;37(8):863-880. doi: 10.1080/ 09593985.2019.1655822.
- [40] Leplege A, Gzil F, Cammelli M, et al. Person-centredness: conceptual and historical perspectives. Disabil Rehabil. 2007;29:20-21.



- [41] Ariza-Mateos MJ, Cabrera-Martos I, López-López L, et al. Effects of a patient-cenered program including the cumulative-complexity model in women with chronic pelvic pain: a randomized controlled trial. Maturitas 2020;137:18-23.
- [42] Bade BC, Hyer JM, Bevill BT, et al. A patient-centered activity regimen improves participant in physical activity interventions in advanced-stage lung cancer. Integr Cancer Ther. 2018;17(3):921-927. doi: 10.1177/1534735418781739.
- [43] de Vries NM, Staal JB, van der Wees PJ, et al. Patient-centred physical therapy is (cost-) effective in increasing physical activity and reducing frailty in older adults with mobility problems: a randomized controlled trial with 6 months follow-up. J Cachexia Sarcopenia Muscle, 2016;7(4):422–435, doi: 10.1002/jcsm.12091.
- [44] Lotzke H, Brisby H, Gutke A, et al. A person-centered prehabilitation program based on cognitive behavioural physical therapy for patients scheduled for lumbar fusion surgery. Phys Ther. 2019;99(8):1069-1088. doi: 10.1093/ptj/pzz020.
- [45] Sposito G, Barbosa A, Figueiredo D, et al. Effects of multisensory and motor stimulation on the behaviour of people with dementia. Dementia. 2017;16(3):344-359. doi: 10.1177/1471301215592080.
- [46] Lange E, Palstam A, Gjertsson I, et al. Aspects of exercise with person-centred guidance influencing the transition to independent exercise: a qualitative interview study among older adults with rheumatoid arthritis. Eur Rev Aging Phys Act. 2019;16(1):4. doi: 10.1186/s11556-019-0211-8.
- [47] Rosewilliam S. Indramohan V. Breakwell R. et al. Patient-centred orientation of students from different healthcare disciplines, their understanding of the concept and factors influencing their development as patient-centred professional: a mixed methods study. BMC Med Educ. 2019;19:347.
- [48] Björkman I, Feldthusen C, Forsgren E, et al. Person-centred care on the move - an interview study with programme directors in Swedish higher education. BMC Med Educ. 2022;22(1):589-600. doi: 10.1186/s12909-022-03657-4.
- [49] Wallengren C, Billig H, Björkman I, et al. Person-centered care content in medicine, occupational therapy, nursing, and physiotherapy education programs. BMC Med Educ. 2022;22(1):492. doi: 10.1186/s12909-022-03502-8.
- [50] Benner P. From novice to expert. Menlo Park. 1984;84(12):1480. doi: 10.1097/00000446-198412000-00027.

Appendix A: Focus group topic guide

Introductions & Housekeeping. Answer any questions related to the Participant Information Sheet and if agree sign consent forms. Begin recording and transcription, and ask the following questions:

- What does person-centred care mean to you?
- Can anyone describe an experience of delivering person-centred physiotherapy in Intensive care?
 - What happened?
 - How was it person-centred?
 - Who was involved in the decisions about the care/ treatment/rehabilitation?
 - How did you feel about the physiotherapy delivered?
 - How did the patient react?
 - How did the rest of the team or carers respond to the experience?
 - What factors made it easier to deliver person-centred physiotherapy?
- How does everyone else in the group think or feel about this experience? Could you share your thoughts?
- Has anyone else had similar experiences? Can anyone describe an experience when you feel your treatment and/or rehabilitation was not person-centred?
 - What happened?
 - How was it not person-centred?
 - Who was involved in the decisions about the care/ treatment/rehabilitation?
 - How did you feel about the physiotherapy delivered?
 - How did the patient react?
 - How did the rest of the team or carers respond to the experience?
 - What were the barriers to person-centred physiotherapy being deleivered?
- How does everyone else in the group think or feel about this experience? Could you share your thoughts?
- Has anyone had similar experiences?
- Is person-centred physiotherapy always indicated in Intensive Care?
- Has anyone any other thoughts?

Finish and thank you