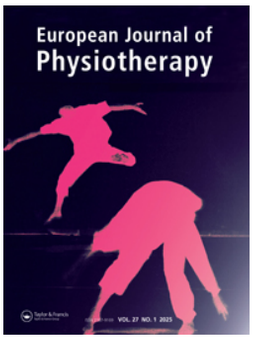

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Pelvic Floor Muscle Training strategies to empower patients: a critical Incident qualitative study

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ABSTRACT

Purpose: This study explored the perceived strategies adopted by physiotherapists to empower patients during Pelvic Floor Muscle Training (PFMT).

Materials and methods: A semi-structured interview qualitative study following Flanagan's Critical Incident Technique (CIT) was conducted. Interviews focused on significant clinical cases related to patient empowerment in PFMT (successful and non-successful cases). Data analysis followed Reflexive Thematic Analysis (RTA).

Results: Eighteen Italian physiotherapists were interviewed (Women $N=16$; Men $N=2$), and 67 cases were collected and analysed. Five themes were generated, providing a novel, in-depth understanding of patient empowerment in PFMT expanding the focus on physiotherapists' perspectives: (1) 'Building a powerful therapeutic alliance', as participants reported how the patient-physiotherapist relationship was fundamental to get early patients' empowerment; (2) 'Debunking myth and managing expectations through education', crucial to start the empowerment process; (3) 'Planning tailored and relevant PFMT', emphasising personalised PFMT plans to empower and engage patients; (4) 'Creating a caring network of professionals and significant others', highlighting support from different healthcare professionals patients' social network; and (5) 'The importance of continuous remote support in self-management'.

Conclusions: Our results highlighted that PFMT empowerment, from the perspective of this group of physiotherapists, requires a holistic, patient-centered approach that integrates communication, education, collaboration, and continuous support to achieve long-term success. These results provide a comprehensive framework that aligns with existing findings in PFMT patients and holds the potential for shaping future PFMT interventions and informing empowerment strategies for physiotherapists. Future studies should expand on other populations and test PFMT programmes.

List of abbreviations: CIT: Critical Incident Technique; PF: Pelvic Floor; PFM: Pelvic Floor Muscles; PFMT: Pelvic Floor Muscle Training; RTA: Reflexive Thematic Analysis

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Physiotherapy; rehabilitation; pelvic floor health; empowerment; engagement; qualitative study

Introduction

Pelvic Floor Muscle Training (PFMT) is a physiotherapy programme aimed at enhancing the muscles involved in pelvic visceral functions (e.g. continence and sexuality) through tailored exercises. By improving muscle tone, strength, and coordination, PFMT can increase pelvic functional abilities (e.g. urinary or faecal continence, orgasm, etc.) [1,2]. Different guidelines considered PFMT as a first-line intervention with A-grade evidence for managing stress urinary incontinence [3,4] in pre- and post-pregnancy populations [5,6] and as an adjunctive treatment for sexual dysfunctions (e.g. erectile dysfunction) [7–9]. One of the objectives of the PFMT is to empower patients to get an active and continuous role in managing their condition [10,11], ensuring long-term effects of PFMT and preventing symptoms flare-ups [12]. Empowerment is 'an enabling process or an outcome of a process involving a shift in the balance of power' [13], and it involves the acquisition of abilities, knowledge, and behaviours, as well as awareness and a willingness to partake in the care process. Empowerment is also associated with better therapeutic outcomes and satisfaction levels [14].

Hence, there is a need to understand which strategies effectively empower patients. Sayner et al. conducted a qualitative meta-synthesis to identify factors influencing engagement in PFMT from patients' perspectives [15]. Results reported that interactions between patients and healthcare professionals, the use of technology, and the promotion of visualised behavioural change play a crucial role in enhancing participation, self-efficacy, and empowerment in PFMT

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[15]. However, there is a lack of studies exploring healthcare professionals' perspectives related to how to engage and promote empowerment in PFMT. Exploring the experience of physiotherapists will allow for matching the perspectives of both populations to develop shared knowledge, enhancing the quality and customisation of PFMT [16].

The Critical Incident Technique (CIT) is a qualitative method adopted to assess human behaviours, especially in clinical research, as it adopts a retrospective analysis to identify specific behaviours or actions that led to positive or negative outcomes [17,18]. CIT elicits the reflection on perceived effective or very ineffective practices, aiming to provide solutions to practical problems [17]. Hence, CIT can be a method to identify the actions and behaviours that physiotherapists adopted during PFMT that negatively or positively affected patients' empowerment. This qualitative study aimed to identify through CIT the strategies physiotherapists adopted during PFMT to empower patients.

Methods

Study design

An interview qualitative study following Flanagan's CIT [17,19] was conducted to identify strategies a sample of physiotherapists adopted to empower patients during PFMT. Empowerment is intended as 'an enabling process or an outcome of a process involving a shift in the balance of power' [13]. Data analysis was conducted following the Reflexive Thematic Analysis (RTA) was adopted [20].

In the context of PFMT, the CIT enabled an in-depth exploration of the contexts and mechanisms underlying physiotherapists' experiences, focusing on how and why their actions empower or do not empower patients, by engaging in a narrative [21]. Meanwhile, using the RTA to analyse these different narrations of positive and negative events among pelvic floor physiotherapists allowed for identifying patterns of shared meaning, underpinned by a central concept, and therefore core empowerment strategies applicable to each patient [22]. The combined use of CIT and RTA offered an approach to capture the multifaced nature of patient empowerment, which is characterised by different dimensions and can be framed both as an outcome and as a process, hence, challenging to capture through quantitative data alone [23].

Ethical approval was obtained from the Ethics Committee for University Research (CERA) of the University of Genova, Italy (CERA2023/91; approval date: 30/11/2023). The study followed the 'Consolidated Criteria for Reporting Qualitative Research for reporting qualitative studies (COREQ) [24].

Participants

Italian physiotherapists were recruited through purposive sampling if they had at least five years of pelvic floor (PF) rehabilitation experience. A purposive sampling was chosen to ensure a heterogenous sample [25], which is highly valued in qualitative studies aiming to catch different perspectives [26]. BG and OB, experts in PF rehabilitation, contacted colleagues with the same background *via* email, phone, or social media to inform them about the opportunity to participate in this study. Snowball sampling was permitted. To partake in the study, individuals had to contact BG. The informed consent was shared with the participants to explain the aim and modality of the study. Any participants could withdraw from the study at any moment. No participants refused to participate or dropped out.

Data collection method

A group of physiotherapists and a psychologist developed the semi-structured interview guide to explore critical incidents (Supplementary File 1), intended as retrospective events with positive (perceived patients' empowerment) or negative (no perceived patients' empowerment) outcomes, facilitating the reflection-on-action [27,28]. Therefore, all but the last question was repeated for each critical incident. Before the interview, sociodemographic data (age, gender, educational attainment, years of experience in general as a physiotherapist and in the pelvic floor rehabilitation field) were collected and registered on an Excel electronic sheet. BG conducted one-to-one interviews on Microsoft Teams to have an auto-transcribed verbatim transcription file. We preferred interviews as participants might refrain from narrating negative experiences and going into depth about every significant event due to time constraints during group discussions [29]. Participants could disable their webcam for comfort. After the interview, the transcription file was manually corrected and made anonymous by deleting any personal name or reference. Once this process was completed, the video recordings were deleted. Participants received anonymous codes based on their interview order, age and gender (e.g. P5, 34 years old, Woman).

During the interview, the participants were asked to describe significant events or experiences in terms of actions and behaviours related to patients' empowerment during PFMT practice that led to a positive or negative empowerment outcome [18]. The word 'critical incident' was not used to avoid any bias linked to negative narration [17]. Hence, these 'incidents' throughout the paper were reported only as significant 'clinical cases' or only 'cases' as it does not affect the fundamental process procedure (17). The interviewer ensured that the reported information was described in-depth to favour significant and rich data [17]. The interviewer asked participants to recall as many cases as they wished. Usually, the number of interviewees needed is based on the number of 'incidents' reported, which is about 100 total incidents. Still, it was decided to stop the collection once the interviews did not add any significance to the dataset, as reported by the user's guide for nurse research developed by Schluter J et al. [17].

Due to professional interactions, six participants had met the interviewer (BG) before. This pre-existing relationship might have influenced the data collection process positively due to mutual trust and openness, which are imperative for CIT interviews [17]. To ensure a similar atmosphere with participants who had not met BG before, extra time was dedicated to building rapport to balance the familiarity that other participants might have had. The literature highlights the

positive impact of participants-research relationship in qualitative research and encourages its establishment when appropriate [30,31].

Data analysis

Sociodemographic data were analysed through descriptive analysis. To analyse qualitative data, the RTA by Braun & Clarke was adopted [20]. RTA belongs to the 'Big Q' qualitative paradigm as it does not adhere to minimising bias, coding accuracy, and using different strategies, such as data saturation and member checking, to increase data trustworthiness [22]. Data codification was inductive, allowing researchers to catch the richness and variability of data by identifying patterns of meaning without any framework. Within a realistic theoretical framework, an experiential qualitative theory allowed researchers to identify reflexed shared meaning among the datasets (20,22). Data codification was semantic, staying on the data's explicit or surface meaning. During interviews, the researcher took field notes – 'Memos' and diary – to promote reflexivity. The six steps of RTA were adopted to analyse data. In the first phase ('Data familiarisation'), authors familiarised themselves with the dataset, immersing themselves in the data to understand the depth and breadth of the content by reading and re-reading the data, listening to audio recordings, taking notes, and marking relevant sections of transcripts. During the second phase ('Coding'), two authors, BG and GB, generated codes to organise the dataset by reviewing the transcripts individually and identifying recurring ideas, coding relevant data extracts. Peer debriefing was employed during research meetings to facilitate reflexive thoughts. In the third phase ('Generating initial themes'), initial themes were generated as BG and GB organised codes and identified broader patterns of meaning which were developed into preliminary themes. These initial themes were refined in the fourth phase ('Reviewing and refining themes') through discussions involving BG, GB, and SB, who reworked or eliminated some until finding a set of themes fitting the dataset, ensuring that there were enough data to support each theme. In the fifth phase ('Defining and naming themes'), BG, GB, IC and SB defined and named the themes as they could tell a 'story' by refining the definition and name of each theme and wrote a preliminary report outlining each theme. Moreover, the authors ensured that themes represented participants' experiences and perspectives. Finally, all authors contributed to the last phase ('Producing the report') by producing the final report, providing feedback and refining the generated themes if necessary.

BG is a physiotherapist and PhD student in Neurosciences. IC is a social psychologist with PhD in Social Science and a post-doc research fellow at the University of Genova (Genova, Italy). OB is a physiotherapist with expertise in pelvic floor rehabilitation. MT is a physiotherapist, PhD in Rehabilitation Sciences and associate professor at the University of Genova (Genova, Italy). GB is a physiotherapist, and PhD student in Neurosciences at the University of Genova (Genova, Italy). SB is a physiotherapist, research fellow at the University of Salford (Salford, UK) and a joint PhD in Neurosciences and Medical Science. BG, MT, GB and SB identify themselves as men; IC and OB identify as women. BG, IC, and GB are trained in conducting qualitative studies.

Results

Between January and June 2024, eighteen Italian physiotherapists with over five years of PF rehabilitation experience participated in the study (Age (Mean and Standard Deviation): 38 ± 9, 88,9% Women, *N* = 16; 11,1% Men, *N* = 2). Sixty-seven cases were collected: 35 positive and 32 negative with no repeated interviews. Interviews averaged 38 (SD = 10) minutes. For more details, see Table 1 and Figure 1. Clinical case descriptions are reported in Supplementary File 2.

Five themes were generated from the interview analysis: (1) 'Building a powerful therapeutic alliance', (2) 'Debunking myth and managing expectations through education', (3) 'Planning tailored and relevant PFMT', (4) 'Creating a Caring

Table 1. Participants characteristics and numbers of significant cases reported.

Participant	Gender	Age	Educational Attainment	Years of experience in physiotherapy	Years of experience in pelvic floor physiotherapy	N of positive cases	N of negative cases	Total cases
P1	M	33	Master's Degree	10	6	2	2	4
P2	W	35	Bachelor's Degree	14	13	2	2	4
P3	W	36	Master's Degree	15	15	1	3	4
P4	W	27	Master's Degree	6	6	2	2	4
P5	W	34	Master's Degree	10	10	2	2	4
P6	W	53	Bachelor's Degree	30	7	2	2	4
P7	W	48	Bachelor's Degree	21	10	2	2	4
P8	W	57	Bachelor's Degree	24	21	2	2	4
P9	W	60	Master's Degree	36	26	2	1	3
P10	M	34	Master's Degree	10	8	2	1	3
P11	W	38	Master's Degree	17	9	1	1	2
P12	W	34	Bachelor's Degree	13	12	3	2	5
P13	W	36	Bachelor's Degree	14	6	2	2	4
P14	W	32	Master's Degree	9	9	2	1	3
P15	W	39	Master's Degree	16	6	2	2	4
P16	W	35	Bachelor's Degree	13	5	2	2	4
P17	W	31	Master's Degree	10	6	2	2	4
P18	W	29	Bachelor's Degree	5	5	2	1	3
Total*	/	38 ± 9	/	15 ± 8	10 ± 5	35	32	67

Legend: N, number; M, man; W, woman; *, age and years of experience have been presented as mean ± standard deviation.

Figure 1. Graphic representation of the five themes and codes generated from the RTA analysis.

network of professionals and significant others', (5) 'The importance of continuous remote support in self-management'. Quotations and codes that led to themes are in Tables 2–6.

Theme 1: building a powerful therapeutic alliance

This theme was generated by analysing the importance of authentic therapeutic alliance between the physiotherapist and the patient to enhance PFMT empowerment (see Table 2).

Participants emphasised the need to build this alliance from the first encounter by showing a genuine interest in patients' stories, mindsets, and needs. A positive mindset rooted in determination facilitated early empowerment, while negative mindsets, marked by low self-esteem, resistance to change, feelings of frustration and isolation, and a desire to receive passive and easy treatments with fast solutions hindered empowerment.

Effective communication was perceived as essential not only for resonating with patients but also for shaping their mindsets. Clear, non-misleading, and positive coupled with empathy and an upbeat narration about patients' health status and treatments were considered critical. Avoiding clinical 'labels' and negative language was crucial, as was legitimising patients' pain and seeking consent actions. These factors raised trust, helping patients feel understood and respected, ultimately creating a solid foundation for collaborative care. However, challenges to empowerment arose when differences in values, such as religious beliefs, or prolonged PFMT plans without improvements weakened the alliance. Moreover, female physiotherapists sometimes faced difficulties with male patients due to uncomfortable situations that could hinder empowerment.

Theme 2: debunking myth and managing expectations through education

This theme was generated by exploring the role of patients' education in managing negative beliefs and expectations, and finally preventing catastrophisation during PFMT sessions (see Table 3).

Table 2. Illustrative data extracts for theme 1: 'Building a powerful therapeutic alliance'.

Codes defined by researchers	Example of quotes extracted from the interviews
Mindset	"The patient was very willing to undergo therapy, to do things even at home, especially because, after ten years of having seen a large number of doctors, as is more or less the case with everyone who suffers from pelvic pain, she was very willing to do anything." – Participant 13, 36 years old, woman, positive case
	"The resumption of work as soon as possible and then, since after the three physiological months, when one is usually able to… […] She had this real desire to return to how she was before the birth, and so she felt responsible, saying, 'OK, I'll do everything and more to return to how I was as soon as possible.'" – Participant 15, 39 years old, woman, positive case
	"She came into the clinic and told me, she literally said, 'This is my situation, this is my pain. You tell me what needs to be done, I'll follow you because I am so desperate that whatever you ask…'" – Participant 16, 35 years old, woman, positive case
	"We tried some strategies, but for him… after fifty years working as a gardener at this pace, despite his age, he never thought about changing them." – Participant 13, 36 years old, woman, negative case
	"I told her to use the probe for biofeedback because she had no awareness of her pelvic floor at all. When I tried to get her to do biofeedback, she bought the probe and all the equipment, then she got angry with me and said, 'You're giving me too much work. I get anxious.' The fact that she couldn't manage to do the biofeedback really bothered her." – Participant 4, 27 years old, woman, negative case
	"Self-esteem zero, because then he told me about his relationship with his wife, nothing. So, there was also an erectile dysfunction that came out gradually." – Participant 6, 53 years old, woman, negative case
The desire for fast and passive treatments	"She wanted to see results immediately. Like with a drug, in fact she often called me asking, 'Can't I take something to reduce the incontinence, huh?' And she also asked for medications." – Participant 13, 36 years old, woman, negative case
	"She had undergone so many passive treatments that hadn't helped at all. So, when I think about her first session, even though she was very doubtful because I was often saying things that contradicted what she'd heard before. She trusted me straight away, and we actually achieved marvellous results." – Participant 17, 31 years old, woman, positive case
	"Because they want everything immediately, but the problem with the pelvic floor is that… with the pelvic floor, 'everything immediately' doesn't exist, so I say there's no technique that's scientifically proven, no machine." – Participant 15, 39 years old, woman, negative case
Therapeutic alliance	"She saw me as a friend too, she opened up a lot, and I helped her. I think she immediately trusted me because she understood that I knew and understood her problem. Once she felt understood, she completely opened up. […] Feeling understood, I was able to, let's say, get inside her mechanisms, and every time she tried… or refused to do things I suggested, I kept encouraging her to try […] She felt supported. In fact, she told me, 'I feel understood,' and her attitude really helped me in the process." – Participant 4, 27 years old, woman, positive case
	"He has a lot of respect for me; so, it's as if everything he does is to not disappoint my expectations." – Participant 6, 53 years old, woman, negative case
	"There are patients who… when I try to tell them, 'Look, there is scientific evidence,' and I explain it to them, they trust me so much that they say, 'OK, yes, let's try.' And they say, 'See, I feel fine even if I do physical activity,' and I have them do circuits during the session." – Participant 3, 36 years old, woman, negative case
	"What really makes a difference is the length and quality of the first visit… She never felt listened to. And when a patient tells me that they've never felt heard, it pushes me even more to give them my time, to listen to them, and to have them tell me everything they feel—not only in terms of symptoms and what they've already done to address their problem, but also from a human perspective." – Participant 17, 31 years old, woman, positive case
	"One of the strongest factors is definitely empathy, the therapeutic alliance, how much the patient trusts me, because I can present them with all the scientific evidence, but if the patient is convinced in their mind that just tightening the pelvic floor or doing a squat or any of those activities they've read about on blogs or social media, or been told by doctors for years… it comes down to how strong the therapeutic alliance and relationship is. Some patients start to get better, and they trust me so much that when I propose other therapeutic strategies, even ones they haven't read about on social media…" – Participant 3, 36 years old, woman, negative case
	"It's how the professional presents themselves that makes the difference in gaining trust, regardless of their professional qualifications or training. They could have 2,000 certificates, 2,000 diplomas, or whatever. But if the professional doesn't approach the patient in the right way, the patient tends to run away. […] If I notice that the specialist is evaluating me superficially, or if I enter and they've already judged me, they've already labelled me, I leave…" – Participant 8, 57 years old, woman, negative case
	"At some point, I was probably a bit tired of systematically trying to deconstruct her beliefs. So, at a certain point, my fatigue with the situation probably caused us to be completely at odds." – Participant 5, 34 years old, woman, negative case
	"She came from a very, very Catholic, devout and practising family. […] She was perhaps overshadowed by her sister, who managed to detach herself a bit and didn't have her usual problems." – Participant 12, 34 years old, woman, negative case
Seeking consensus	"I treated her with great respect; I always asked her for consent, and this is something…" – Participant 13, 36 years old, woman, positive case
Legitimising their pain	"She arrived already very willing, and I think the fact that I explained to her that her pain wasn't madness, but was something real, made a difference." – Participant 12, 34 years old, woman, positive case
Communication skills	"It's better to say, 'There's a need to add a psychotherapy path,' or, 'It's important to begin to consider that it will be useful from now until a certain time,' so that the person doesn't create further resistance. […] But even just the term 'add,' or the concept of adding within a path that's already characterised by an important diagnostic delay…" – Participant 10, 34 years old, man, negative case
	"A woman coming in for these types of issues feels judged if she doesn't meet the goals we've set. Often, I see that when they tell me they haven't done the exercises, they've already judged themselves. That's a mechanism where I think they need to feel perfectly understood here, even in their lack of organisation." – Participant 11, 38 years old, woman, positive case
	"[Communication] that is clear is one thing… not being open to misinterpretation is another, in my opinion. Clear means that I've made the concept clear to you… But not being open to misinterpretation means that you haven't just understood what I've said, but you've made the concept your own. I've given you the opportunity to let it sink in; I've given you the chance not to misunderstand my intentions when I tell you something." – Participant 10, 34 years old, man, positive case
	"Avoid judgement. The patient can sense judgement a mile away, and when they do, they run." – Participant 8, 57 years old, woman, positive case
	"I tried to use positive language, not negative. 'Don't do this or the pain will come back'—a threat given to her by her previous therapist, who said, 'If you don't come to the clinic once a month, the pain will return.' I tried to make her understand that the pain might return, but that we have all the tools to manage it, and since we know it, we can fight it again." – Participant 4, 27 years old, woman, positive case
	"Being able to identify what's unspoken, hidden, what perhaps the person hasn't even fully conceived yet… in the sense that the person may not have even developed certain concerns yet, but they're quite evident…" – Participant 10, 34 years old, man, positive case
Challenges with male patients if females	"He was a very important law enforcement officer, so he had great self-esteem… Being treated in intimate areas by a woman made the situation very embarrassing for him." – Participant 7, 48 years old, woman, negative case
	"I was saying to him, 'Look, you need to think about activating that as well, because the more you think about it… try it with your wife,' and so on. However, when it happens (the erection) in the clinic with you, it's not pleasant… there's embarrassment and it doesn't happen often… The man isn't as embarrassed; it's the younger man, the young lad, who feels more embarrassed." – Participant 15, 39 years old, woman, negative case
	"My issue has been that perhaps men, especially those over 50, might misunderstand my work. So there was a moment when someone got an erection […] But believe me, many people, that is, many men, move onto the sexual sphere. So I've learned to detach more, which is true, you might say to me, 'You're not being professional, you should stay detached,' but I'm always detached. The problem is that sometimes when you talk about sexuality to help them with their wives, it's happened that someone might make a little joke [sexual advance], or there's been this moment of initial erection. In that moment, I just thought to myself, 'Oh well, it means something is waking up" – Participant 15, 39 years old, woman, negative case
Honesty	"What I told the patient was that it was a… treatment proposal; so, unfortunately, I didn't expect, and I wasn't sure I could give her the expected therapeutic benefit… so we would make a therapeutic attempt with a limited number of sessions, during which I would like to see a significant clinical change." – Participant 2, 35 years old, woman, negative case

Table 3. Illustrative data extracts for theme 2: 'Debunking myth and managing expectations'.

Codes defined by researchers	Example of quotes extracted from the interviews
De-responsability	"She was saying that she would never recover, so it was pointless… Then wasting money and time on therapies that didn't work." – Participant 12, 34 years old, woman, negative case
	"It's absolutely normal to have a prolapse because the grandmother had it, the mother had it, and everyone has urinary incontinence. It's not a problem… It could be that due to this socio-cultural aspect, they don't see it as a major issue." – Participant 17, 31 years old, woman, negative case
False Myth	"I can fail… when the patient has deeply ingrained concepts or false myths that they've held for many years… and I try to, let's say, make those castles of sand fall down." – Participant 3, 36 years old, woman, negative case
	"Breaking down, let's say, false beliefs, providing information, education, and strength to challenge acquired beliefs, rebalancing load capacity, and checking for any activities or bad habits that might, let's say, perpetuate or manage flare-ups." – Participant 5, 34 years old, woman, positive case
	"I'm scared, I don't want to do that activity because I know it'll make me feel bad, and I won't try it." Then there are others who say, "Yes, they told me I shouldn't do it, but I trust you. I'll give it a go" and from there, their trust in me, in themselves, grows, and they start working more on their own. There's the false myth." – Participant 3, 36 years old, woman, negative case
Beliefs	"They come to me because I'll perform magic manipulations that will make them feel better, and so they must keep coming to me because with these manipulations it's as if I have golden hands, and I heal them. In reality, it's much more complicated but also more rewarding to empower them because making the patient understand that a lot of what they do in their lifestyle and daily life actually fuels this pain even more… helping them understand that just because you have a pelvic floor with increased tone or pain doesn't mean you can't exercise, dance, or that you should limit all your activities. So, we work on raising awareness of both the muscles and all the neurophysiological processes that lead to chronic pain." – Participant 3, 36 years old, woman, negative case
	"I now change my initial approach with patients to reduce as much as possible… I don't know, the fear they might have about talking about certain areas […] I say right away, 'Look, today we're going to calmly talk about the anus, urine…' I mention it immediately and try a bit of shock therapy." – Participant 7, 48 years old, woman, negative case
	"If I realise that the person first needs to accept their condition, and only then we can start dismantling a system of beliefs and slowly rebuilding it… I find it much more therapeutic to spread out the process over time, while, of course, considering their economic, time, and work constraints." – Participant 10, 34 years old, man, negative case
	"Some don't want to use a mirror because it's a cultural obstacle; so, most of them can only perceive their own parts. And they need a lot of reassurance that they're doing it correctly." – Participant 9, 60 years old, woman, negative case
Expectations	"They're distrustful… because they've already tried things before coming to you. So, they don't trust easily, and it's harder to engage them." – Participant 15, 39 years old, woman, negative case
	"She expected me to repeat the same method she'd done in the first phase of rehabilitation; so, she expected me to use the electrostimulator, the FES [Functional ElectroStimulation] again, so that she could save herself 10 min at home by doing everything with the electrostimulator." – Participant 13, 36 years old, woman, negative case
	"She resumed sexual activity, dancing, but not physical activity. Because she's convinced from what she's read and what the blogs say, and also the doctor who authorised the dilators told her, 'sport will harm you.' So, she's scared and doesn't want to." – Participant 3, 36 years old, woman, negative case
	"I fear it's more of a sexological issue, and the specialist will assess if there are any previous instances of abuse and so on. The patient, once she started the exercise at home, felt tension, a sense of discouragement, and depression that led her, instead of doing the exercise, to uncontrollably contract her entire pelvic area." – Participant 2, 35 years old, woman, negative case
	"Perhaps forced by her husband, she came in with certain preconceived notions. That is… because she was forced to do something she didn't want to do, and I added my own part to contribute." – Participant 8, 57 years old, woman, negative case
	"I tried to normalise what could have been… a moment where there were flare-ups. I tried to normalise it and certainly didn't focus too much on the importance of my 'fixing' therapy." – Participant 5, 34 years old, woman, positive case
	"I try to put them at ease as much as possible and make them understand that it's something we've almost all gone through and that everything is normal. […] To not see it as a negative thing that will necessarily bring a more unfortunate future." – Participant 15, 39 years old, woman, positive case
Catastrophisation	"She resumed sexual activity, dancing, but not physical activity. Because she's convinced from what she's read and what the blogs say, and also the doctor who authorised the dilators told her, 'sport will harm you.' So, she's scared and doesn't want to." – Participant 3, 36 years old, woman, negative case
	"I made her understand that there could be a recurrence, but that shouldn't scare her into thinking 'I'm starting over again.' Because she wasn't, and in fact, she went for a check-up a few days after the episode, and the doctor told her the same thing." – Participant 6, 53 years old, woman, positive case
	"There's a lot of catastrophizing. She suffered from panic attacks and always said, 'I have panic attacks… If I have severe pain, I get a panic attack.'" – Participant 16, 35 years old, woman, negative case
Violation of expectations	"Violation of expectation […] is what I managed to do with this patient using dilators. She was convinced that her vaginal compliance was rigid, fixed, but with the dilators, she realised that vaginal compliance was elastic, gradual, but progressive." – Participant 3, 36 years old, woman, negative case
	"And then a lot of gym… her plea for help was, 'I want to play with my daughter, play with my daughter…' In the first session, I put her on the treadmill and said, 'Run.' Like, I just threw her on the treadmill and said, 'Do you think you can do it? No? Okay, then do it for me.' It was pure exposure, pure violation of expectation." – Participant 16, 35 years old, woman, positive case
Education	"I took great care in explaining things. I didn't just hand her a sheet of exercises saying 'Do these, do this,' but I stayed there explaining, saying, 'Do you understand? What do you think?' I didn't look at the clock." – Participant 1, 33 years old, man, positive case
	"But if I have to work, it's as if my brain numbs the pain only to make it return later when I go home." This loop had been created, so I spent all my subsequent sessions on pain neuroscience education with my folders, explaining the nervous system, management, metaphors about pain, and learning about pain in this way." – Participant 16, 35 years old, woman, positive case
	"Both practical demonstration, with hands-on practice and explanation using anatomical models, and then a handout summarising what to do is given to patients to take home. Their active participation is absolutely required, as it is in all therapeutic plans concerning pelvic floor rehabilitation." – Participant 2, 35 years old, woman, positive case
	"I listened to her and explained what was happening. She had gone from having cystitis once a month to having it after every sexual encounter, then every day. […] I educated her… I did what's called pain education; I explained the pain mechanisms to her, reassuring her that she wasn't dying, that it wasn't so serious, and that she could get better." – Participant 14, 32 years old, woman, positive case
	"Sometimes I draw, or I show videos of the surgery, or show… many anatomical charts to help them understand, even before I start explaining why we activate certain muscles and how we work on so many structures." – Participant 15, 39 years old, woman, positive case
	"They start to develop a different awareness both at the muscular and behavioural level, they begin to understand that it is a muscle they can control, that they can, let's say, coordinate, and that they don't have to endure the pain or think that their body is in control, but rather understand that it's an integrated system of, let's say, multiple factors. […] It's not just an area that must always be protected, hidden because it's fragile. Instead, they realise that it's an area they can touch without issues, where they can change their sensitivity. Gradual exposure helps them feel that it's not so rigid or uncontrollable, and slowly, through this exposure, they begin to engage in physical activities or those they had previously avoided." – Participant 3, 36 years old, woman, negative case
	"I made him understand… simply by talking. I asked a question, and he answered 'yes, no'. I had him place his hand on his belly, and he relaxed. So, just through simple conversation…" – Participant 6, 53 years old, woman, negative case
	"I systematically repeat these things in every session, trying to vary examples, in the sense that I explain again what, for me, the pathology is. Then, of course, I classify it, explain what it is, what chronic means… I shift from chronic to persistent." – Participant 5, 34 years old, woman, positive case

Participants stressed the importance of debunking false beliefs related to PF disorders, by breaking taboos and addressing misconceptions in the rehabilitative process. De-responsibility, a sense of helplessness towards PF conditions, and false sexual beliefs often acquired using the internet were considered obstacles to empowerment that need to be faced from the outset.

Narration and education helped physiotherapists in managing patients' expectations. Patients' past experiences sometimes affected their engagement with PFMT. Moreover, educating on and normalising PF conditions, explaining how to address potential flare-ups, helped physiotherapists overcome catastrophisation and build their confidence. To support this, physiotherapists iteratively used educational tools such as mirrors, anatomical models or drawings, and pain education techniques to teach patients how to recruit PFM. The aim was to help patients progressively and actively work to reach independence, including specific exercises to ultimately increase awareness of PFM. Special attention was given to help patients recognise what they needed to feel and activate when performing exercises, using palpation as feedback during the therapeutic sessions so they could replicate it independently at home.

Theme 3: planning tailored and relevant PFMT

This theme was generated by exploring how important it was for the participants to personalise PFMT plans, and make them relevant to patients, which was crucial to keeping patients empowered (see Table 4).

Personalising the type, intensity, frequency, load of exercises to patients' needs, time availability, work, and daily routines were essential for empowerment and engagement. Physiotherapists also emphasised understanding what is most relevant to patients, what drives them, such as hobbies or the desire to spend quality time with significant others.

Patients' preferences were respected, in some cases finding agreements, especially in cases like men in general, or women with vulvodynia, who may feel discomfort with internal approaches (e.g. endocavitary devices or manual techniques). Moreover, physiotherapists explained why PFMT is important and what is its aim to enhance their empowerment and facilitate exercise initiation in the rehabilitation process, emphasising it should be performed regularly at home. The goal was to promote patient independence and reduce reliance on healthcare professionals.

Theme 4: creating a caring network of professionals and significant others

This third theme was generated to emphasise the need for a comprehensive support network comprising health professionals and significant others to support patients' empowerment (see Table 5).

Interprofessional collaboration, with trust and teamwork among professionals, was crucial to enhance patient care, but when physicians held more credibility or team lacked cohesion, patients' trust in physiotherapy diminished, hindering empowerment. Among the other professionals, psychologists were valuable allies, especially in cases where patients had psychological resistance or trauma. In some cases, fear was so intense that it prevented patients from progressing in treatment or accepting their condition. Moreover, for patients with psychiatric comorbidities, such as borderline disorders, mood disorders, or attention deficits, cognitive-behavioural techniques, like meditation, mindfulness, or attention shifting, helped reduce psychological stress during treatment sessions.

Involving significant others, such as partners, friends, or relatives, also played a crucial role. If agreed, significant others needed to be involved in the treatment plan by adopting parental training, aiming at understanding, empathising, and actively helping to engage in PFMT. Cultural taboos or lack of support from significant others could, however, hinder empowerment.

Theme 5: the importance of continuous remote support in self-management

This last theme was generated by investigating how physiotherapists continue to guide their patients by adopting digital technologies at a distance and teaching self-management strategies to achieve empowerment (see Table 6).

Physiotherapists emphasised the importance of constantly guiding patients in integrating PFMT into their daily lives. Problem-solving strategies were used to overcome each possible obstacle. For example, if patients reported that they could not perform PFMT because they were not alone at the house, physiotherapists might suggest locking the room while they exercise. If there was no key to lock the door, the physiotherapist could recommend singing a sign to prevent anyone from entering. Moreover, exercises were structured to be progressive and easy to follow, promoting adherence and increasing awareness of PFM.

Digital tools, including biofeedback devices, smartphone apps, and multimedia content, were used to remind patients to exercise and provide real-time feedback. Sometimes, chat platforms were used as diaries to track treatment progress or symptom diaries. Finally, physiotherapists aimed to teach self-management strategies, such as scales or questionnaires, enabling patients to monitor their condition and respond to flare-ups independently. If improvements were noticed, patients were more inclined to continue their PFMT, sustaining empowerment. This approach fostered of self-management strategies as the final goal was to foster patient independence rather than reliance on treatment sessions in healthcare settings.

Discussion

This qualitative interview study, following CIT, investigated perceived strategies that seemed to empower patients doing PFMT from the lenses of a group of Italian physiotherapists. Participants highlighted that the first step in empowering patients was establishing a solid therapeutic bond through a positive and empathic approach (Theme 1: 'Building a powerful therapeutic alliance'). Equally important was

Table 4. Illustrative data extracts for theme 3: 'Planning tailored and relevant PFMT'.

Codes defined by researchers	Example of quotes extracted from the interviews
Personalisation	"I tried lowering the intensity of the home exercises to see if the issue was due to poor awareness and lack of feedback at home from the patient […] but we didn't see any effect at all." – Participant 2, 35 years old, woman, negative case
	"I base my treatment on the patient's goals because in every session I need to get one step closer to the goal and one step further from the fear." – Participant 16, 35 years old, woman, negative case
	"I proposed biofeedback to him, for example, or other devices where it wasn't necessary for me to manually intervene in the area, which is only anal." – Participant 7, 48 years old, woman, negative case
	"She thought she was dying, that it was serious, that she needed surgery. By telling her it was normal and that maybe only 10% of patients with prolapse experience symptoms, she already felt better. By reducing her workload and then giving her a more appropriate load, she improved in just a few sessions […] and all I did was talk." – Participant 5, 34 years old, woman, positive case
Listening to patients' needs	"Listen to their needs, because it often happens, even with others… We need to recalibrate our expectations a bit. I recalibrate them, listen carefully, and follow what they need, explaining that it might take a bit longer to achieve the results." – Participant 18, 29 years old, woman, positive case
	"The goals they want to achieve, because the goals shouldn't only be exclusively related to pain but also to other factors." – Participant 17, 31 years old, woman, positive case
	"I try to… adapt to the patient's request while always using the strategies I know. But not by protocol […] I create it based on the patient; now I can do it. Before, I couldn't, but now I can modulate it a bit more, and I ask emotionally richer questions because I've realised it's an important factor." – Participant 7, 48 years old, woman, positive case
	"I'm not free anymore," and from there I realised that 'free' was a word I used, putting it on the balance with our goals. Your goal is to be free. Our goal is for you to be a free person again because I understand that's why they come." – Participant 9, 60 years old, woman, positive case
	"When a person sees that there is a thoughtful care plan, one that considers their needs and limits at that moment, the person definitely feels seen. This can objectively be applied in any context." – Participant 10, 34 years old, man, negative case
Patients' relevance	"[I latch onto] what makes them say, 'Yes, I want to do this,' and there's always a moment when it clicks, and I can guide the patient towards something active […] understanding what kind of person I'm dealing with, what they like and don't like, to figure out what could trigger more involvement." – Participant 3, 36 years old, woman, positive case
	"At the end of my first evaluation, after the physical assessment and anamnesis, before moving on to the physical part, I always ask the patient, as a rule, three things they would like to return to doing and three things they are afraid to do, in order of priority." – Participant 16, 35 years old, woman, negative case
	"I try to understand what habits they've completely abandoned. What could motivate them to return… For example, she was very passionate about martial arts […] You need to find something they associate with an enjoyable activity that they no longer do and use it as motivation to gradually bring them back to it." – Participant 3, 36 years old, woman, negative case
	"Her fundamental request for help, which I didn't initially understand… When I finally connected with her, it was 'Help me understand why I have this pain.'" – Participant 16, 35 years old, woman, positive case
Adapting to patients	"I'm terribly afraid of internal treatments because they hurt so much. I don't want internal treatments—no problem. Come to the gym, and we'll work there […] I explain that manual therapy is an opportunity, that it's not a miracle cure but sometimes it can help, and the patient knows it's available if they feel ready for it." – Participant 16, 35 years old, woman, negative case
	"I had to be both a friend and a sergeant because she needed to trust me, but I also needed authority because for a long time, those who diagnosed her Pudendal neuralgia hadn't listened to her." – Participant 4, 27 years old, woman, positive case
	"You always have to make compromises with reality because otherwise, you would be too aggressive and invasive with the patient. So, I know that in that moment, you're giving up something you want to do, but if I force you, it's like I'm doing violence to you. So okay, breaking the expectation, but breaking the expectation shouldn't also mean going against the strategies the patient wants." – Participant 3, 36 years old, woman, negative case
	"I had to adjust by incorporating pelvic floor contractions into her work routine, much like with her sports routine, because she told me, 'Yes, I'll do the exercises, but you can't tell me not to strain myself; it's my job.'" – Participant 7, 48 years old, woman, positive case
	"The problem with exercise, especially for a working mom, is finding time to fit it into her daily routine. Once she finds that window of time, she'll always do it, but if she doesn't find that space, she'll never do it." – Participant 11, 38 years old, woman, negative case
	"We did some things in the clinic, and then I asked, 'Do you think you can do the same things at home? Are you comfortable with it? When do you think you can do it?' We always looked for the right way together, or I pretended we were choosing together, but I knew where I needed to guide her." – Participant 13, 36 years old, woman, positive case
	"We decided together on the device to purchase with the same probe I use, and she really started using it at home a couple of times a week on her own, and she indeed improved…" – Participant 1, 33 years old, man, positive case
	"I want to hear from them after about ten days for an update on the exercises they're doing and their situation, then we decide together what to do next, really holding them accountable." – Participant 7, 48 years old, woman, negative case
	"At first, she was very rigid and scared. When she realised I would respect her and not touch her… I asked her permission to work on breathing together, so we did some autogenic training, and little by little, she became compliant." – Participant 8, 57 years old, woman, negative case
Explaining why performing the PFMT is important	"I really like explaining and making sure they understand why. If they understand why, you're strong in everything. I don't just give an exercise, I explain why they're doing it and why it's helpful." – Participant 15, 39 years old, woman, positive case
	"I managed to help them understand what they were responsible for at home, what to expect, and especially the importance of doing it and how it differs from not doing it. Of course, they can choose not to do it, but the treatment time in the clinic would be much longer. So, I left the choice up to them." – Participant 2, 35 years old, woman, positive case
	"The core of my work is to repeat the exercises they did in the therapeutic setting at home. They've tried it, seen it, felt it, and already know how to do it, which is very important because, unfortunately, with the pelvic floor, they have the disadvantage of moving a part they've never been familiar with, have little awareness of, and don't receive extrinsic feedback on." – Participant 9, 60 years old, woman, negative case
Avoiding dependence	"I tried to make her a participant in her recovery journey because I didn't want her to become dependent on me as a practitioner […] I reduced the therapies and gave her more tasks to do at home. I increased the number of gym sessions; first, she started swimming three times a week, then twice a week in the pool and twice in the gym. Now she regularly goes to the gym, and she says, 'Since I started going back to the gym…'" – Participant 4, 27 years old, woman, positive case
	"You don't have to come here and depend on me as a physiotherapist. But ask me any questions, and we can review your exercises on a video call, even in the evening. We can video call again." – Participant 15, 39 years old, woman, positive case
	"The form says that the results are primarily due to the work done at home. So now, in the very first session, even before they come to see me, the receptionist gives them the form. Absolutely, so they already know before they meet me that I'll give them things to do at home; I think if they know in advance, they're more prepared for it." – Participant 13, 36 years old, woman, positive case
	"I always explain to my patients that I don't take responsibility for anyone's health; it's not my responsibility. It's always a journey taken by two, so I commit to using all the tools I have at my disposal, but I expect the patient to follow the instructions." – Participant 16, 35 years old, woman, positive case
	"My way of empowering the patient is by making them understand that their health depends on them. I can accompany, guide, and shed light, but I'm not with them 24 h a day, so they must take responsibility for changing their habits." – Participant 16, 35 years old, woman, positive case

Table 5. Illustrative data extracts for theme 4: 'Creating a caring network of professionals and significant others'.

Codes defined by researchers	Example of quotes extracted from the interviews
Interprofessional teams	"Teaming up with the other person who was also responsible for her care, along with me, [was helpful]." – Participant 14, 32 years old, woman, positive case
	"Having the possibility to… sometimes even being able to anticipate what would later become the work of another type of professional." – Participant 10, 34 years old, man, negative case
	"We should evaluate the person as a whole, and for treating pelvic floor problems, a multidisciplinary team is necessary, which must include, of course, a gynaecologist and a urologist; that's a conditio sine qua non." – Participant 12, 34 years old, woman, negative case
	"You need to work as a team to address issues of this kind. Because in the meantime, I got in touch with all the other people who were also taking care of her, besides me." – Participant 14, 32 years old, woman, positive case
	"The multidisciplinary aspect to empower; I need a psychologist, but I also need a gynaecologist to say… and yet the psychological aspect is fundamental." – Participant 15, 39 years old, woman, negative case
	"The multidisciplinary vision, meaning this is still a little-known pathology, still in an exploratory phase, but I believe it is heavily influenced by nutrition and intestinal functionality, and certainly also by a significant psycho-socio-emotional component." – Participant 12, 34 years old, woman, negative case
	"What I tried to do was refer her to another colleague to see if changing the approach would make a difference, and that will be the next step." – Participant 12, 34 years old, woman, negative case
	"Sometimes I refer back to the doctor because the doctor has more authority than I do as a paramedic, and if the doctor says it, they believe it more." – Participant 15, 39 years old, woman, negative case
	"Because a doctor is still a doctor, if they say, 'the doctor told me to come to you'…" – Participant 15, 39 years old, woman, negative case
Psychological support	"There was so much resistance to anything I tried to implement, whether in terms of techniques or advice." – Participant 12, 34 years old, woman, negative case
	"Through psychotherapy, it emerged that she had been assaulted at a young age, and when we started working on everything simultaneously, the patient improved significantly." – Participant 4, 27 years old, woman, positive case
	"I do this with all patients because when there's pain, I often explore the psychological aspect and invite them to undergo psychotherapy, as pain is never made worse by psychological factors." – Participant 4, 27 years old, woman, positive case
	"Address it from a psychological perspective before a physical one, because there were probably things that couldn't be unlocked with just physiotherapy…" – Participant 12, 34 years old, woman, negative case
	"It would be helpful to entertain the idea, over time, of being supported by a psychotherapy process. It's a convoluted concept… but it allows you to reshape an expression and avoid placing a label linked to cultural baggage on someone…" – Participant 10, 34 years old, man, positive case
Psychological comorbidities	"A borderline functioning is complex because it's a person who is fully functional, except in certain phases, when you realise they don't function as you do, and we were too far apart." – Participant 5, 34 years old, woman, negative case
	"It's more difficult when there are mental health problems. These patients are very hard to reach because they struggle to concentrate, even on the goal, and their thoughts are often disturbed by other concerns, which makes it hard for them to focus on exercises or therapy…" – Participant 17, 31 years old, woman, negative case
	"A case of mild mood disorders… the execution of home exercises was made impossible due to psychological and/or sexual issues that she herself had never addressed." – Participant 2, 35 years old, woman, negative case
Cognitive treatments	"Meditation, focusing exclusively on the present moment, works very well for patients with serious mental health problems. It has proven to be very effective… I've added this to my treatment, which used to be more exercise-based." – Participant 17, 31 years old, woman, negative case
Family support	"Her husband was very understanding of the situation at home, although he never wanted to come to therapy, even when I suggested it. Now there's no need anymore. Her family has also been very supportive." – Participant 13, 36 years old, woman, positive case
	"She also had support from her teenage daughters, who knew what she was going to do and reminded her to do the exercises. So, she had social support as well, which was very, very helpful." – Participant 18, 29 years old, woman, positive case
	"You get the relatives involved. I always say, I always invite the caregivers, the relatives who are nearby, to join therapy. We talk together, because those close to her might have noticed behaviours or things, and later they can remind her to do things like 'remember, you have to…'" – Participant 13, 36 years old, woman, negative case
	"Sometimes, there are dysfunctional partners who don't help at all; instead, they are a source of distraction and disturbance." – Participant 17, 31 years old, woman, negative case
	"Her family environment didn't help much… Both her mother and father kept telling her, 'Just take an anti-inflammatory and stay in bed.'" – Participant 16, 35 years old, woman, positive case
	"One of the aspects that worsens the rehabilitation process is the family. Some support the pain, and some say, 'I don't want to see you like this,' so you smile despite the pain, and there are husbands who don't understand…" – Participant 4, 27 years old, woman, negative case
	"She didn't even have support, like… I don't know. Her husband would come home from work and not take care of the kids so she could go to the gym; instead, he would go to the gym himself. She didn't have support from her husband or grandparents. There was no one to take care of her kids." – Participant 18, 29 years old, woman, negative case
	"Her partner was absent, practically never at home, always very tired, and no longer… really her husband." – Participant 14, 32 years old, woman, negative case
Parental training	"A kind of family training. I invite the husbands to the first sessions, even when I explain how to do the self-massage. I ask the patient if they want their husband to learn too, and the next time he comes along… When partners are present, the patients feel reassured." – Participant 4, 27 years old, woman, negative case
	"Sometimes I even bring family members into the sessions to involve them." – Participant 6, 53 years old, woman, negative case
	"I always offer the possibility of bringing him to the clinic once, just once, because something explained by the wife or partner is not the same as when a professional says it, so it's up to her to decide…" – Participant 9, 60 years old, woman, positive case

Table 6. Illustrative data extracts for theme 5: 'the importance of continuous remote support in self-management'.

Codes defined by researchers	Example of quotes extracted from the interviews
Problem-solving	"No, you need to find the key to your room, you need to lock yourself in your room. If you can't find the key to your room do they know at home that you're coming here? Yes, good, you need to put a clear sign outside the door saying 'do not enter', you need to place a chair behind the door… this way, no one will come in," I mean, I have to go into such organisational details that might seem, let's say, excessive, but sometimes I'm forced to, because that's how it works." – Participant 9, 60 years old, woman, negative case.
	"I had to come up with a strategy like "you lie in bed, put the child next to you, so that he can see you and touch you. You can see him and touch him. And that way, can you do the exercises for me?" – Participant 9, 60 years old, woman, negative case.
	"My strategy is problem-solving, meaning I annoy them, ask them a thousand questions about why, or, you know, the same thing that came to my mind, which is the same thing the patient told me when I said to her, 'Well, maybe you could lock yourself in the bathroom…'" – Participant 9, 60 years old, woman, negative case.
	"To understand exactly why patients aren't performing that type of treatment at home, and the importance of clarifying the focal points that explain why it's important for them to do so. So, how to make them responsible." – Participant 2, 35 years old, woman, positive case.
Progressive exercises	"I start by giving them a timing for fluid intake, a timing for urination, and from there, more and more exercises that involve using the pelvic floor throughout the day, so that, for urinary incontinence, the patient uses the pelvic floor as a strategy to avoid leaking, and I gradually introduce aids or exercises that allow for self-treatment." – Participant 3, 36 years old, woman, negative case.
	"I give them very few things to do at home. Very few, very basic things, so maybe in the first month, in the early stages, the homework was minimal, probably… I don't recall exactly what I gave her. But clearly, by doing the little I had requested, she evidently noticed improvements compared to the early sessions where I would say, 'OK, for a couple of weeks, we won't do anything at home.'" – Participant 1, 33 years old, man, positive case.
Useful feedback	"Sometimes I give them manual or tactile feedback, or using surfaces for support, so that they can recreate this feedback at home." – Participant 11, 38 years old, woman, positive case.
	"I'm not really into machines, I'm more about making them feel things, but often biofeedback helps. Because while you're doing a simple exercise, like bending to pick something up or lifting a weight, you realise how much you're pushing." – Participant 15, 39 years old, woman, negative case.
	"So, in order to really make them understand the importance of what I'm saying… I make them feel it as much as possible, even using biofeedback." – Participant 15, 39 years old, woman, negative case.
	"Biofeedback, to be used at home. I've noticed it's often necessary to have a device […] They do like having an aid, a device that can keep them, let's say, in the routine of exercising." – Participant 17, 31 years old, woman, negative case.
	"I gave her some strategies like looking at herself in the mirror, I also encouraged her to maybe look into, not necessarily buy, those biofeedback devices to use at home […] We needed to shift the focus to an object, so that we could link the two things together. Rehabilitation-object." – Participant 13, 36 years old, woman, negative case.
	"To have visual feedback, and possibly manual techniques to desensitise the pain, so I taught her where to find the painful points for self-treatment." – Participant 5, 34 years old, woman, positive case.
Digital monitoring	"They listen, they are constantly engaged, they call me, I do these phone meetings, they call me, ask me questions, and even during the weekend, they say, 'Hey [name of the physiotherapist], am I doing the exercises correctly?', or they send me a message, 'Everything's fine, I'm following the exercises, see you next week', meaning there's collaboration and responsibility." – Participant 15, 39 years old, woman, positive case.
	"Now I have a memo where I send messages to remind all the patients I follow about exercises. Periodically, I send exercises by email, the ones we do in the office, so they can use either graphical support, meaning the whole sequence, or even video support, so they can hear all the corrections." – Participant 11, 38 years old, woman, negative case.
	"They send me a report, a message, because it's the only way I have to really keep on top of the patient and make them understand that I need feedback, I mean, I need a response and collaboration, compliance, otherwise, things won't improve." – Participant 15, 39 years old, woman, positive case.
	"I ask the patient to give me feedback, if something is unclear or not properly understood, and I also make myself available for feedback through video consultation." – Participant 2, 35 years old, woman, positive case.
	"I try to send reminder messages. So, for example, since therapy is once a week, in the middle of the week, during the initial phase of rehabilitation, I send the patient a message saying, 'Hi, how are you?'. Then, after they tell me how they are, I ask, 'Have you done this, have you done that? How is it going with those things?', so that they remember, and if something isn't going well, we can correct these aspects midweek." – Participant 4, 27 years old, woman, positive case.
	"I often send messages to patients to get a report, so they sometimes use my chat as a symptom diary, and then during therapy, we analyse what they tell me. Maybe some wrong action or activity in their daily life, like spending too much time in the bathroom or going to the toilet without the urge, and I correct them." – Participant 4, 27 years old, woman, negative case.
Social media as a tool	"I also have a website and a YouTube channel where there are some exercises; so, I invited her to watch the exercises to do together. I invited her to follow it directly from the page, so that in those five minutes, we could do them, let's say, together." – Participant 13, 36 years old, woman, positive case.
	"To give value to social media, it might seem silly, but knowing that it can be useful to someone… I take care of my social media a bit more, because even if only 3, 4, 5 people watch, I keep it as a reference, I take a bit more care of it." – Participant 13, 36 years old, woman, positive case.
Smartphone application to monitor	"There should be an app with notifications, maintaining training sessions, workouts of a few minutes, less than 12 min […] I think that today this could be a valid solution." – Participant 11, 38 years old, woman, negative case.
	"I use apps, for example, Headspace, and it works really well. Or we also record a guided relaxation session together during the appointment, or we record the exercises on video, and she can repeat them at home because it's a lot for her to remember them." – Participant 17, 31 years old, woman, negative case.
Self-managements tools	"[One strategy] would have been to teach her to use self-assessment scales… and say, 'OK, if I score a certain number, I might need to do more therapy, whereas below a certain score, I shouldn't worry because it might be a flare-up for a couple of days, which could be a…'" – Participant 1, 33 years old, man, negative case.
	"I'm very satisfied with this kind of test using the pad test because I find one of the biggest mistakes is using non-specific parameters to assess continence. The pad test, on the other hand, is an objective examination, I wet 200, I wet 200, so we haven't had any results." – Participant 2, 35 years old, woman, negative case.
	"On another occasion, she had used the urine stick, but at my suggestion. So, she rarely writes to me, this girl, I mean, she's biking now, even though the snow is deep, but she's been biking, we had her buy a noseless saddle for her bike, a whole series of things, and maybe she… she's had a few more symptomatic days, so she shouldn't be using the bike, maybe she could use the scooter more. She has to use the vibrator… she's a perfect model of self-management." – Participant 1, 33 years old, man, positive case.
	"A voiding diary, which allows us to highlight their voiding and hydration habits… Then, if we think it's necessary, if the diary and history reveal any dysfunctional behaviours, we ask for changes." – Participant 9, 60 years old, woman, positive case.
	"So, I made her understand that those weren't cystitis because she didn't have the common symptoms of cystitis. So, the first thing I did was give her good education on the types of symptoms. Saying, of course, 'Yes, these are the symptoms of cystitis, these are the symptoms of vulvodynia, but sometimes cystitis can present atypically.' And I focused a lot on education and self-management with her." – Participant 1, 33 years old, man, positive case.
Behavioural change	"Pelvic floor rehabilitation is not just about exercises; it also involves changing behavioural norms. For her specific case, for example, she now wears white cotton underwear. Previously, she would wash herself every time she urinated, and I told her, 'No, you see, that's too much hygiene; it's not good.' So, she immediately changed her behavioural norms." – Participant 6, 53 years old, woman, positive case
	"You need to explain to these patients that anything in contact, unfortunately, worsens their condition, and therefore they should no longer wear those tight jeans they have. They must change and try to wear skirts, hold-up stockings, or very soft leggings. Their underwear must be made of excellent cotton, uncoloured, and not synthetic." – Participant 9, 60 years old, woman, negative case
Lack of awareness about improvements	"She didn't used to exercise, but she has started; she didn't drink enough, but now she's drinking more; she didn't eat well, but now she's eating better. However, she's very attached to me, as she is to our work. She doesn't want to let go of me, not realising that she's actually improving." – Participant 14, 32 years old, woman, negative case
	"Just because she notices a [slight] improvement in her symptoms, it doesn't mean the problem is resolved. It's a key feature of these syndromes, so self-management over time is crucial." – Participant 1, 33 years old, man, negative case

demystifying false beliefs and educating patients on the importance of taking an active role in their healing process (Theme 2: 'Debunking myth and managing expectations through education'). Empowerment strategies also involved developing personalised PFMT plans, aligning with patients' preferences and routines (Theme 3: 'Planning tailored and relevant PFMT'). The process often required the involvement of interprofessional teamwork and patients' significant others (Theme 4: 'Creating a caring network of professionals and significant others'). Finally, sustaining empowerment extended to offer ongoing remote support through digital and non-digital tools to assist with self-management at home (Theme 5: 'The importance of continuous remote support in self-management').

Building a therapeutic alliance was particularly important in fostering empowerment. Physiotherapists reported that positive, clear, and non-judgmental communication, especially in patients with persistent pain, helped make them feel welcomed and listened to, as other authors also highlighted [32,33]. Also, patients' positive mindsets were central to their empowerment with PFMT, consistent with the literature [34]. Moore et al. reported that if PFMT is perceived as a burden, patients will be less inclined to start exercising and get empowered [35]. However, gender and cultural differences could create challenges, with some women physiotherapists encountering discomfort during interactions with male patients doing PFMT, alluding to sexual advances. So far, in the PFMT literature, there seem to be no other reports on this challenge. Perhaps, other healthcare professionals did not feel safe enough to share similar experiences, underestimating the magnitude of this phenomenon. The potential interactions of political, cultural, and social factors on PFMT delivery are well-recognised [36]. Participants reported that therapeutic alliance can also be lost in the long run in cases where patients do not improve their symptoms, consistent with the literature [37].

Debunking myths and managing patients' expectations through education was another critical empowerment strategy. Participants encountered patients with false beliefs, taboos, negative expectations, or de-responsibility that prevented them from attaining empowerment and performing PFMT, as reported elsewhere [34,38–40]. In this regard, education was crucial to tackle taboos, de-responsibility, catastraphisation, and increase PFMT awareness, especially if the process was iterative. Different tools can be used to improve understanding of PFM functions and recruitment, such as mirrors, anatomical models or cards, patients' and physiotherapists' bodies, and manual feedback. These findings resonate with what is reported in the literature [11,15,37,38,41,42]. However, physiotherapists when educating should also consider that gender-based social roles may contribute to shaping different expectations of patients [42,43].

Delivering personalised and relevant PFMT was essential for patient empowerment. Physiotherapists tailored exercise routines to fit each patient's lifestyle and preferences, emphasising the importance of integrating PFMT into daily life and sharing PFMT rationale, aims and requirements to attain empowerment. Sawettikamporn et al. reported that women doing PFMT have a lack of self-discipline owing to competing priorities in their busy schedule [37]; therefore, making the PFMT relevant based on the gender societal role might be a useful strategy to engage patients. Moreover, participants reported that accepting patients' will and finding an agreement with patients on the PFMT plan increased empowerment and engagement, as also reported by Dao et al. [44]. For example, even though internal approaches might be perceived as effective, some patients may feel discomfort and therefore choose not to use them [45].

Creating a caring network of professionals and significant others further empowered patients. Interdisciplinary was considered essential to support patients' healing process, particularly when psychological barriers hindered PFMT empowerment [46]. Physiotherapists also highlighted that, if agreed, involving patients' significant others could facilitate empowerment by educating on PFMT. This aspect has also been emphasised by Lai et al. reporting that Chinese women hoped for understanding and support from their family members [47], as well as other authors [48].

Finally, continuous remote support, including digital tools biofeedback devices, and smartphone apps, played a key role in sustaining empowerment. These technologies helped patients maintain awareness of PFM contractions and supported them in integrating PFMT into their daily lives. The perceived efficacy of the biofeedback device was also emphasised by a sample of Italian people with urinary incontinence doing PFMT [45], even though some people may consider it uncomfortable, and quantitative analyses provide inconsistent results [49,50]. Smartphone notifications, digital diaries, videos, and online chats were, instead, used to support from distance. Literature highlights how digital interactions decrease the embarrassing nature of PF conditions compared to face-to-face visits [11,15,51,52]. Physiotherapists also adopted problem-solving approach to help patients overcome barriers to exercise [53], emphasising self-management strategies to help patients manage their PF condition, such as scales and tests to understand if there are improvements or flare-ups, such as the pad test, already used in the literature [53,54]. Participants highlighted that patients were more likely to adopt beneficial PF behaviours when they noticed improvements, while a lack of awareness hindered empowerment, in line with what is also suggested in the literature [15,55,56]. Self-management was emphasised as the ultimate goal, aiming to fester patients' independence through empowerment.

In comparison to the systematic review of Sayner et al. [15], focused on patients' perspectives, this study revealed common themes related to patient education, personalised PFMT, use of technology, and interprofessional support. Both studies emphasised the importance of verbal cues, practical information, and positive communication. However, this study emphasised the role of significant others and the challenges in building therapeutic alliances as well as the potential value of using scales and tests to monitor patients' progress independently.

This study is the first that explored strategies for empowering patients through PFMT from physiotherapists' perspective. However, there are limitations to consider. The sample was limited to volunteer Italian physiotherapists, who may not represent populations with different cultural backgrounds.

Among our sample, men physiotherapists were less represented than women. Moreover, the study only explored physiotherapists' perceptions without direct patient correspondence or quantitative measures. Future studies should consider broader populations and include perspectives from different ethnicities. Despite these limitations, the study is valuable as it pioneers the exploration of physiotherapists' perspectives on empowering patients through PFMT.

Conclusion

Physiotherapists in this study described valuable perceived strategies to empower patients doing PFMT. Initially, positive and empathetic communication to build a therapeutic alliance, address false beliefs, and manage patients' expectations through education is fundamental to fostering early empowerment. Then, personalised and relevant PFMT plans involving an interprofessional team and patients' significant others were key to empowering and engaging patients in PFMT. Finally, continuing to support patients from a distance using different digital strategies was vital to sustaining empowerment and reaching patients' independence.

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Authors contributions

BG, SB, OB and MT Concepted and designed the study. BG conducted the acquisition of data. BG, GB, IC and SB analysed and interpreted the data. BG, IC, OB and SB drafted or revised the article critically for important intellectual content. All authors approved the final version of the manuscript.

Consent to participate

The participants signed informed consent for publication before participation.

Consent to publish

The authors affirm that human research participants provided informed consent for publication, but we have no pictures or videos to declare.

Data deposition

Not applicable.

Detail of any previous presentation of the research, manuscript, or abstract in any form

None.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Ethics approval

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Data availability statement

Data sharing not applicable: The data presented in this study are available as supplementary material to this article.

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