

Original Research

Tailoring Rehabilitation Following Periacetabular Osteotomy for Acetabular Dysplasia: A Qualitative Interview Study on Challenges and Opportunities among Physiotherapists in Denmark and Australia

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Background

Periacetabular osteotomy (PAO) surgery provides better coverage of the femoral head and alleviates symptoms of acetabular dysplasia. While guidelines on rehabilitation following PAO exist, these guidelines may not sufficiently address the challenges and opportunities in providing rehabilitation for patients with diverse needs and goals in various healthcare contexts.

Purpose

The purpose was to investigate the perceived challenges and opportunities of various post-PAO rehabilitation approaches from the perspectives of physiotherapists in Denmark and Australia.

Study design: Qualitative study.

Methods

A hermeneutic, phenomenological approach and semi-structured interviews were applied to explore the perspectives of 18 physiotherapists (7 males), aged 29–63 years, who rehabilitate patients with acetabular dysplasia following PAO. To ensure diversity in the characteristics of physiotherapists, purposeful sampling based on age and sex was employed. The interviews were coded and analyzed using inductive content analysis.

Results

The analysis revealed three themes: “Identifying crucial factors for successful recovery”, “Managing the recovery process through targeted rehabilitation”, and “Building a trustworthy relationship”. Several subthemes were identified, showing consistent patterns across countries. However, the Australian physiotherapists focused more on returning to sport and related milestones and providing structure-specific exercises. In contrast, the Danish physiotherapists emphasized addressing socioeconomic backgrounds and vulnerability among their patients.

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Conclusion

The physiotherapists involved in the rehabilitation of patients with acetabular dysplasia shared common perspectives regarding post-PAO rehabilitation. However, the Australians prioritized returning to sport, while the Danes emphasized socio-economic background. This indicates an opportunity to leverage these insights by focusing on tailored rehabilitation strategies in future initiatives that accommodate patients' needs within their specific healthcare contexts, ultimately enhancing recovery outcomes.

Level of Evidence

Not applicable

INTRODUCTION

Periacetabular osteotomy (PAO) is a widely used surgical procedure designed to correct the acetabular coverage of the femoral head¹ and alleviate symptoms of acetabular dysplasia.² The PAO increases the acetabular coverage of the femoral head by reorientating the dysplastic acetabulum through osteotomies.³ While guidelines on rehabilitation following PAO exist,⁴ no previous studies have sufficiently addressed the challenges physiotherapists experience when rehabilitating patients with diverse needs and goals and how rehabilitation efforts can be optimized in various healthcare contexts.

After surgery, most patients experience less pain, fewer physical impairments and higher quality of life.^{2,5-8} Approximately 80% of patients undergoing PAO are satisfied with the outcome and would undergo the procedure again.⁵ However, PAO is associated with considerable time to recover.^{1,9} The osteotomies, directly or indirectly, impact several muscles and limit weight bearing for six to eight weeks after surgery.^{1,9} Simultaneously, the biomechanics of specific muscles undergo alterations because of the medial re-orientation of the hip joint after the surgical procedure.^{10,11} Furthermore, the population undergoing PAO is diverse, ranging from teenagers to middle-aged adults,¹² from professional athletes to young parents and people in sedentary occupations.¹³⁻¹⁷ Thus, the expectations and goals of post-operative rehabilitation may vary across patient populations.¹⁸ The combination of musculoskeletal implications and the diverse patient population requires highly tailored post-surgical approaches.^{18,19}

Despite the need for tailored rehabilitation, guidelines are limited. A recent Delphi-based consensus study provided expert-driven rehabilitation guidelines⁴ without adequately considering the challenges and opportunities of rehabilitating patients with diverse needs in various healthcare contexts. The present study aimed to investigate the perceived challenges and opportunities of various post-PAO rehabilitation approaches from the perspectives of physiotherapists in Denmark and Australia.

MATERIAL AND METHODS

DESIGN

This qualitative study used a hermeneutic phenomenological approach²⁰ and the Standards for Reporting Qualitative

Research (SRQR).²¹ The EQUATOR-endorsed SRQR is a comprehensive checklist developed to enhance the transparency and quality of qualitative research reporting, involving essential components such as the study rationale, research design, physiotherapist selection, data collection methods and data analysis procedures.²¹

Surgical treatment with PAO is performed similarly in Denmark and Australia. However, the Danish healthcare system is characterized by universal access and tax-funded services,²² while the Australian healthcare system operates with a higher mix of private and public funding.²³ These variations could impact the challenges experienced and the opportunities for improvements associated with post-PAO rehabilitation across healthcare systems.

DATA COLLECTION

A Danish semi-structured interview guide was developed by two authors (JRC and JSJ) with open-ended questions covering four themes: "rehabilitation contents", "patient's perception of the rehabilitation", "contextual implications", and "future recommendations". The interview guide and participant material were translated into English by a language professional (Supplementary materials, Table S1).

SELECTION OF PHYSIOTHERAPISTS

The physiotherapists were recruited through convenience sampling, utilizing the authors' personal networks and by sending invitations to physiotherapy departments in municipalities, hospitals and private clinics in Denmark and Australia. Physiotherapists were eligible if they worked as physiotherapists in postoperative rehabilitation and treated at least two patients with acetabular dysplasia annually. Purposeful sampling ensured variation in sex (assigned at birth) and age. Informed consent was obtained from physiotherapists after receiving oral and written information, and data saturation was achieved.

SETTING

One-to-one interviews were conducted at the physiotherapist's workplace or an online platform, depending on the physiotherapist's preference.²⁴ The physiotherapists were interviewed by MO and JSJ (two physiotherapists with 9 to 17 years of experience managing hip and groin conditions, one female). The interviews lasted between 34 to 104 minutes. Before the interviews, information about the sex, age, workplace, experience, ethnicity, occupation and age

of their patients with acetabular dysplasia was entered by the physiotherapists in the Research Electronic Data Capture system²⁵ (Supplemental material, Table S2).

PUBLIC INVOLVEMENT

The interview guide was pilot-tested and refined through the involvement of two patients with acetabular dysplasia (mode, length and content). Furthermore, GM and AW, both physiotherapists with ten years of experience rehabilitating patients with acetabular dysplasia, were invited as co-authors.

ETHICAL CONSIDERATIONS

This interview evaluation study needed no ethical approval according to Danish law. Therefore, the Committee on Health Research Ethics in the Central Denmark Region waived the request for approval (file number: 1-10-72-1-22). For the Australian interviews, ethical approval was obtained from the Human Research Ethics Committee, La Trobe University, Australia (file number: HEC22084). The study complied with the Helsinki Declaration,²⁶ and all physiotherapists gave informed consent before participating.

DATA ANALYSIS

The interviews were recorded digitally (Dictaphone or password-protected Zoom software) and transcribed verbatim. The transcripts were analyzed by JSJ, using an open four-step content analysis approach.²⁰ In Step 1, transcripts were read to obtain an overall impression. In Step 2, meaning units were identified in three Danish and three Australian interviews (with input from third author JRC), and JSJ and JRC agreed on a coding procedure. In Step 3, the meaning units were labelled and coded accordingly. In Step 4, codes were classified into themes and subthemes, which were refined in coding rounds with input from JRC.

RESULTS

The study comprised 18 physiotherapists, with a median age of 42 (range: 29-62) years (Table 1 and Supplementary materials, Table S2). The physiotherapists' experience ranged from 4 to 37 years, with 76% having worked as physiotherapists for at least five years. Furthermore, the physiotherapists rehabilitated a median of 10 patients with acetabular dysplasia per year, but five managed fewer than five patients annually. Notably, three physiotherapists were not born or raised in Denmark or Australia or descended from parents not born or raised in these countries.

The content analysis revealed three themes and eight subthemes (Table 2), which were based on identified meaning units (examples are provided in Table 3).

IDENTIFYING CRUCIAL FACTORS FOR SUCCESSFUL RECOVERY

PAIN IS KEY

Across countries, the physiotherapists stressed the vital role of effective pain management. They described experiencing poorer outcomes and lower self-efficacy for rehabilitation among patients with fluctuating pain, acute pain exacerbation and pre-surgical pain recurrence.

"If the acute pain from the surgery can be managed well medically, they tend to be in a better frame of mind to start rehabilitation." (AUS2)

They also emphasized the significance of encouraging patients to exercise despite pain and ensuring its manageability through pain medication and load control.

CONTINUITY IN CARE

The physiotherapists highlighted the value of exchanging experiences and collaborating with the involved healthcare professionals to ensure coherent treatment and aligned information. They specifically stressed the importance of accurately replicating and reinforcing patient information provided by the surgeons. Some physiotherapists expressed concern that poor professional collaboration might cause insecurity and even fear-avoidance behavior in the patient due to misunderstandings and conflicting information from different professionals.

"When they [surgeons] deviate from the norm, it is quite important that they inform us and not just the patient because what they [patients] hear is not always what has been said." (DK11)

The Danish physiotherapists described the importance of continuity in care to ensure coherence across all levels of patient care. Some explained how they sometimes served as coordinators in complex patient pathways to facilitate communication between healthcare professionals and prevent patients from slipping outside the system.

MANAGING THE RECOVERY PROCESS THROUGH TARGETED REHABILITATION

TAILORED REHABILITATION

Both groups stressed the importance of one-to-one support and ensuring patients have a voice in their rehabilitation process. Additionally, they highlighted the importance of continuously adapting to aligning the rehabilitation with the patient's evolving needs, the specific context and the current situation.

"As a physiotherapist, it is my job to tailor it [rehabilitation] so that it's adapted to the patient, and not the patient having to adapt to my ideas." (DK4)

Despite heterogeneity among patients, many physiotherapists described adhering to local rehabilitation protocols, structured in phases or post-surgery time frames.

Table 1. Sex, age, workplace and experience of the physiotherapists (n=18)

Participant	Sex	Age (years)	Workplace	Experience (years)
DK1	Female	40-44	Public municipality	5-9
DK2	Female	60-64	Public municipality	5-9
DK3	Female	45-49	Public hospital	15-19
DK4	Female	45-49	Public hospital	10-14
DK5	Female	50-54	Public hospital	20-24
DK7	Male	45-49	Public municipality	10-14
DK8	Female	35-39	Public hospital	0-4
DK9	Male	25-29	Public municipality	0-4
DK10	Male	40-45	Public municipality	5-9
DK11	Female	40-45	Public municipality	10-14
AU1	Female	35-39	Private PT clinic	10-14
AU2	Female	30-34	Private PT clinic	0-4
AU3	Male	55-59	Private PT clinic	10-14
AU4	Female	35-39	Private PT clinic	5-9
AU5	Female	50-54	Private PT clinic	15-19
AU6	Male	50-54	Private PT clinic	25-29
AU7	Male	35-39	Private PT clinic	0-4
AU8	Male	40-45	Private PT clinic	5-9

Table 2. Themes and subthemes on rehabilitation following periacetabular osteotomy

Themes	Subthemes
Identifying crucial factors for successful recovery	Pain is key Continuity in care
Managing the recovery process through targeted rehabilitation	Tailored rehabilitation Information to increase aligned expectations Sharing experiences with other patients Social support
Building a trustworthy relationship	Awareness of the therapeutic role Different mindsets

However, they also argued that following guidelines was often tricky because of patient variance.

“Their available resources vary greatly, how severe it has been, and what they must return to.” (DK4)

Nonetheless, in the early phase (2-6 weeks post-surgery), the physiotherapists focused on the hip joint range of motion, offering guidance on exercises in different positions within the limits of the surgical restrictions on weight bearing. They focused on the major lower limb muscles, the hip rotators, the lower back and the abdominal muscles. In the mid-phase (6-12 weeks post-surgery), they described progressing patients towards higher loads, incorporating standing and walking exercises like squats, deadlifts, hip thrusts and challenging exercises with weight transfer, bridging, hip abduction and extension and four-leg hip rotations. In the later phase (12-20 weeks post-surgery), they introduced single-leg work, such as single-

leg squats and Bulgarian split squats, additional hip flexion and rotation exercises and single-leg exercises in machines.

“At 12 weeks, I load more with squats, reverse lunges, deadlifts and rotations.” (DK10)

The physiotherapists also stressed the importance of patient education on motivation, gradual progression and monitoring potential overload. They described concerns like one-leg exercises resulting in pain for some and adherence barriers while arguing for 20-minute programs and a maximum of five to eight exercises.

“The majority of the time, they’re [patients] only given two or three rehabilitation exercises to do at any given time, and then in addition, there may be one or two times a week actually in the gym.” (AUS1)

Many recommended cycling throughout all phases. They also paid particular attention to barriers to daily living activities, including an active sex life. Strengthening the hip

Table 3. Examples of meaning units, subthemes and themes on rehabilitation following periacetabular osteotomy

Meaning units	Condensed meaning units	Subthemes	Themes
Sometimes, we gamble too much, and it is a bit mentally challenging for them if they encounter too many setbacks.	Mentally challenging with too many setbacks	Pain is key	Identifying crucial factors for successful recovery
When they [surgeons] deviate from the norm, it is quite important that they inform us and not just the patient because what they [patients] hear is not always what has been said.	What they hear is not always what has been said.	Continuity in care	Identifying crucial factors for successful recovery
A [...] patient in horrible pain who can barely function versus the [...] athlete who's, you know, able to run around really quickly.	A patient in horrible pain versus an athlete able to run.	Tailored rehabilitation	Managing the recovery process through targeted rehabilitation
They tend to forget that it's a big operation and to focus more on the goal and all their limitations rather than the great effort required afterwards.	They focus more on the goal rather than the effort required afterwards.	Sufficient information to increase aligned expectations	Managing the recovery process through targeted rehabilitation
In regional areas, [...] group-based treatment might not be as feasible just because it's a lot harder to tailor it for the individual patients.	In regional areas, group-based treatment might not be as feasible.	Sharing experiences with other patients	Managing the recovery process through targeted rehabilitation
Those with limited resources are also the ones who rarely have very high expectations, neither to themselves nor to me, so we have a huge task in finding a balance.	Those with fewer resources rarely have high expectations.	Social support system	Managing the recovery process through targeted rehabilitation
I never prescribe daily exercises. I do so mainly from an adherence perspective because if you ask someone to do exercises every day, they're bound to fail.	If you ask someone to do exercises every day, they're bound to fail.	Awareness of the therapeutic role	Building a trustworthy relationship
They are so much easier to rehab than someone who is very negative about it, consumed with their pain, worried they're never going to get better.	They are so much easier to rehab than someone very negative.	Different mindsets	Building a trustworthy relationship

abductors, adductors and flexors was additional highlighted, as they tended to be inhibited post-surgery. They advocated for continuous adjustments and reassessment of rehabilitation goals based on physical and mental capabilities. The physiotherapists described that supervision frequency normally decreased from one to two sessions per week in the beginning to one to two per month at the end of the rehabilitation. They also described that the rehabilitation period would usually span four to six months, after which the patients could continue rehabilitation independently at home, in a fitness center or a sports club. Some physiotherapists argued for the benefits of group training and/or training in water in the early phases. However, many highlighted screenings for high-risk groups as a recommendable practice and suggested alternative treatments for some.

“Regarding the few who are very vulnerable or more vulnerable, [...] should we offer them an alternative course of treatment, namely an alloplasty?” (DK7)

The Australian physiotherapists talked more than the Danish physiotherapists about returning to sports and tissue structure exercises. Some emphasized the relevance of

acknowledging the role of the hip adductors in hip flexion and working specifically on the external rotators, abductors and the tensor fasciae muscle to compromise compressions through the joint. Moreover, from week 16 and up to 12 months, they described focusing more on acceleration, deceleration, agility and plyometric training to prepare for a successful return to sport. The Australian physiotherapists highlighted manual therapy throughout the period, e.g. soft tissue massage of specific hip muscles and lower back, mobilization techniques and dry needling. Several Australian physiotherapists often recommended pre-surgery training to make the patient as strong as possible, especially hypermobile patients. However, one stressed that resources may be limited for some and that different healthcare settings affect the rehabilitation guidelines.

“Here it's very much for people who are well resourced, rather than people who are perhaps in the lower socioeconomic brackets. It's hard for them to access the surgery in the first place and then access enough high-quality rehabilitation to recover.” (AU5)

SUFFICIENT INFORMATION TO INCREASE ALIGNED EXPECTATIONS

Both Australian and Danish physiotherapists focused on making the patients understand the complexity of post-surgery recovery, including clarifying the timeline, the need for commitment and aligning patient expectations. They emphasized the importance of providing comprehensive information before surgery and addressing concerns, fears and uncertainties throughout rehabilitation.

“They tend to forget that it’s a big operation and to focus more on the goal and all their limitations rather than the great effort required afterwards.” (DK9)

Notably, they described how pre-surgery information from surgeons often leads to smoother recovery. They stressed the significance of effective communication and long-term planning for optimal information delivery. The Danish physiotherapists also highlighted the importance of setting achievable goals for training, activities and rest, demonstrating patience and offering support through setbacks and emotional and physical challenges, and adjusting goals accordingly if needed. Lastly, the physiotherapists described adapting training programs to the individual patient’s preparedness for physical activity and encouraging adherence to exercise routines. Interestingly, only the Danish physiotherapists discussed tailoring based on the patient’s psychological preparedness, capabilities, needs and beliefs.

SHARING EXPERIENCES WITH OTHER PATIENTS

Some physiotherapists shared positive experiences about group sessions, highlighting the importance of patients sharing experiences in a supportive environment to enhance motivation. They described group sessions as sessions typically involving five to seven patients (all undergoing PAO) and, in many cases, starting with a joined warm-up, followed by doing similar exercises usually tailored to each patient. Specifically, they emphasized the advantages of patients mirroring each other, sharing challenges and creating supportive communities, both online and in-person.

“They could mirror each other, support each other, and maybe also continue training together afterwards.” (DK9)

However, they also raised concerns about the risks of overexertion and mental setbacks. They outlined how many patients may struggle with relating to others due to varying levels of ability and progression. They also acknowledged the difficulty of tailoring group sessions to individual needs, including addressing fears and uncertainties.

“It doesn’t work in groups because they have such a great need for talking about these things [...], and when it doesn’t work out, then it’s really no use that 15 others are lined up in the same queue.” (DK2)

For group sessions, they argued that careful selection is crucial, that individual progress must be seen in the

context of group dynamics, and that patients must focus on personal progress rather than comparing themselves to others, as these factors may establish a supportive environment. Nonetheless, an Australian physiotherapist noted that carefully selecting patients for group sessions may be difficult in small-scale centers.

“In regional areas, [...] group-based treatment might not be as feasible just because it’s a lot harder to tailor it for the individual patients.” (AU5)

SOCIAL SUPPORT

Social support was described as critical in assisting patients who face challenges during rehabilitation, such as young mothers with caregiving responsibilities, workplace difficulties, transportation issues and athletes transitioning out of sports.

“Those with limited resources are also the ones who rarely have very high expectations, neither to themselves nor to me, so we have a huge task in finding a balance.” (DK3)

Across countries, the physiotherapists articulated parents’ role as a source of support. However, some described parents as a potential burden, limiting their children from participating in everyday activities or pushing them too much. Therefore, the physiotherapists outlined the vital importance of understanding the broader context of the patients.

“A couple of older ones in their late 20s or early 30s may not have the same social support. [...] They have kids and things like that. They’re probably the ones you worry about.” (AU8)

Like the Australian physiotherapists, the Danish physiotherapists mentioned the significance of counselling the patients, social workers, family and friends to help them understand that surgery is not a quick fix.

BUILDING A TRUSTWORTHY RELATIONSHIP

AWARENESS OF THE THERAPEUTIC ROLE

Several Danish physiotherapists noted that some of the patients seemed vulnerable. They argued that acknowledging the mental and physical challenges faced by the patients was a high priority. They described how they provided positive feedback on behaviors and helped set realistic goals for training activities to enhance the patient’s motivation and engagement. In line with this, a few Australian physiotherapists argued for the value of outcome measures to monitor progression, such as dynamometers to assess hip muscle strength.

The Danish physiotherapists highlighted the significance of providing support during setbacks or challenges and encouraging patients to continue their training efforts despite difficulties. They described achieving this by focusing on specific tasks, such as the location, timing and method of performing exercises, seeking support from patient networks and developing strategies to achieve patient

goals. The Danish physiotherapists also emphasized how a supportive environment can empower patients to take charge of their rehabilitation. Support during setbacks was less articulated among the Australian physiotherapists. Instead, they focused more on what was feasible to adhere to and how to ensure autonomy.

DIFFERENT MINDSETS

Across countries, the physiotherapists described how the patients' approach to exercise, their previous physical activity level and their motivation for doing enjoyable activities were decisive for outcome.

"If they manage to be physically active despite the pain, it indicates a certain level of pain tolerance and an ability to function in everyday life, which is a good indicator." (DK7)

They described how some patients were exercise enthusiasts or elite athletes, while others were novices in physical activity and focused more on reducing pain and managing daily activities. The physiotherapists highlighted that some people preferred extensive workouts and others shorter sessions. The physiotherapists described how these different mindsets were also mirrored in the rehabilitation process. They noted how patients experiencing progress and little pain generally believed more in their capacity to handle the rehabilitation and were easier to rehabilitate.

"They are so much easier to rehab than someone who is very negative about it, consumed with their pain, worried they're never going to get better." (AU3)

In line with this, the physiotherapists stressed the importance of managing patients differently, describing anxiety, fear or doubt in recovery among some patients. Regarding more anxious patients, they emphasized the importance of increased support and motivation guidance, as well as strategies to build trust and security.

DISCUSSION

Physiotherapists in Denmark and Australia expressed shared challenges and opportunities in the post-surgery rehabilitation of patients with acetabular dysplasia. Three themes were identified; these showed both consistent patterns and differences between the countries.

IDENTIFYING CRUCIAL FACTORS FOR SUCCESSFUL RECOVERY

The involved physiotherapists highlighted the importance of effective pain management and tailored information to address pain-related fears. Previous studies highlight pain as a key issue, which has been associated with outcomes such as reduced hip muscle strength and lower quality of life.^{2,5-7} An American study showed that 22% of patients with acetabular dysplasia experienced pain-related fears,²⁷ and a qualitative case study echoed that enduring pain may pose challenges with a perceived loss of control.¹⁵ Collectively, these studies stress the critical role of counselling

in pain management during PAO rehabilitation, particularly on pain level fluctuations, aligning expectations and managing uncontrollable postoperative pain.

Continuous, coordinated rehabilitation is equally crucial for recovery, as poor communication and discontinuity in outpatient care have been shown to be negatively associated with service consistency and suboptimal patient outcomes.^{28,29} These findings align with the present findings and suggest opportunities for enhancing care.

MANAGING THE RECOVERY PROCESS THROUGH TARGETED REHABILITATION

The physiotherapists involved in the present study emphasized the importance of tailoring approaches to improve strength, coordination and balance based on individual characteristics and goals. They also stressed the significance of providing sufficient pre-surgery information to align patient expectations. This aligns with previous research,^{18,19,28} which found pre-operative counseling critical for managing rehabilitation expectations following PAO and total hip and knee arthroplasty.²⁸ Specifically, unrealistic patient expectations, often influenced by mainstream media and online sources, were perceived to be critical for recovery.²⁸ In contrast, a case study involving seven patients with acetabular dysplasia noted that social media groups helped patients gain confidence in understanding what to expect.³⁰ Hence, providing credible information to calibrate expectations and goals presents a significant opportunity to enhance rehabilitation.

The physiotherapists of the present study also elaborated on boosting motivation by establishing shared experiences in group sessions. However, they also noted that group sessions require careful selection and monitoring and appeared to be relevant only for certain patients in large-scale settings. Additionally, they highlighted the importance of providing different forms of support to patients during rehabilitation. This is supported by the aforementioned previous study revealing that peers and therapists, rather than surgeons, attributed successful recovery through spousal or family support, particularly in case of cultural and language barriers.²⁸

Interestingly, the Australian physiotherapists prioritized structured, sports-specific approaches over the more holistic approach favored by the Danish physiotherapists. In contrast, support services were emphasized more in Danish than in Australian practices. These disparities may stem from varying patient needs or healthcare settings, as indicated by differences in the workplace data from the present study. The Danish healthcare system, characterized by universal access and tax-funded services,²² may cater to a more diverse patient population, including those with varying socioeconomic backgrounds. In contrast, the Australian healthcare system has a mix of private and public funding,²³ with the Australian physiotherapists in the present study catering to predominantly privately funded patients. These variations could impact surgical access, funding of procedures and rehabilitation services (as noted by an Australian physiotherapist), which might explain the differing priorities between the two countries.

BUILDING A TRUSTWORTHY RELATIONSHIP

The physiotherapists highlighted the importance of involving patients in decision-making and adapting goal-setting strategies to promote patient engagement and adherence. Specifically, the Danish physiotherapists articulated the value of recognizing patients' vulnerabilities, while Australian physiotherapists tended to prioritize specific outcome measures to boost adherence. Nevertheless, recognizing patients' mindsets and customizing support accordingly are essential for fostering a trustworthy relationship across countries.²⁸ This emphasis on understanding mindset resonates previous findings, which stressed the importance of patient attitudes in ensuring active participation in surgery and rehabilitation.²⁸ Thus, active participation may have a potential to address previous reported barriers to recovery, such as negative pain coping, psychological distress and low self-efficacy for recovery.²⁸

STRENGTHS AND LIMITATIONS

Engaging clinical experts in sharing their challenges and experiences enhanced the comprehension of crucial factors for optimal rehabilitation following PAO. This approach ensured a comprehensive examination of the subject matter, thereby enriching the understanding of opportunities to improve future PAO rehabilitation.

Although diverse needs and socioeconomic resources were found in this patient population, the findings may not be generalizable outside Denmark and Australia. Moreover, establishing guidelines for post-surgical rehabilitation across diverse healthcare settings may present a wider scope of challenges and opportunities.³¹ The present study focuses on therapeutic approaches rather than organizational issues. Nevertheless, the findings may inspire new regional or local rehabilitation approaches, as noted in a previous study on stroke rehabilitation.³¹

The study physiotherapists had 4 to 37 years of experience, managing 2 to 400 patients with acetabular dysplasia annually and rehabilitating at least two patients per year following PAO. Consequently, they represent both less and more experienced physiotherapists, which could be considered a limitation. However, the aim was to explore the diverse challenges and opportunities experienced in everyday practice by physiotherapists who rehabilitate these patients, extending beyond the perspectives of expert practitioners.

For practical reasons, the Danish physiotherapists were interviewed by a Danish author, while an Australian author interviewed the Australians. Therefore, differences in attitudes, beliefs and perceptions between the two interviewers might have caused differences between countries. However, the interview guide was developed jointly and used by both interviewers, and several online and physical meetings were held to align understandings. Finally, the analysis was performed by one researcher to ensure high consistency.

CLINICAL IMPLICATIONS

Future rehabilitation following PAO may benefit from this new insight on challenges, with a view to refining rehabilitation programs and improving outcomes for patients with diverse needs in various healthcare settings. One approach could be to examine the benefits of providing more comprehensive information about the surgical and rehabilitation processes to better align the patients' expectations and goals before and during rehabilitation. Specifically, future studies could examine the benefits of improving continuity in care through better communication channels, within and across sectors, including centralized information platforms and common guidelines on pain management, exercises and relevant activities during all rehabilitation phases, as suggested elsewhere.^{28,29} However, the findings also indicate a need for recognizing the significance of personalized care to address individual and social needs and to understand the broader contexts of patients. One approach could be to examine the benefits of integrating assessment of mental health or social capital before surgery; this could ensure that patients with poor mental health or from low socioeconomic backgrounds receive the support needed and are treated accordingly.²⁸ Lastly, the benefits of integrating well-proven motivation strategies should be explored, and how such strategies may facilitate active participation of various types of patients in the rehabilitation process.

CONCLUSION

The physiotherapists involved in the rehabilitation of patients with acetabular dysplasia shared common perspectives regarding post-PAO rehabilitation. However, the Australians prioritized returning to sport, while the Danes emphasized socio-economic background. This indicates an opportunity to leverage these insights by focusing on tailored rehabilitation strategies in future initiatives that accommodate patients' needs within their specific healthcare contexts, ultimately enhancing recovery outcomes.

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CONFLICTS OF INTEREST

The authors report no conflicts of interest.

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SUPPLEMENTARY MATERIALS

Supplementary materials

Download: <https://ijspt.scholasticahq.com/article/140883-tailoring-rehabilitation-following-periacetabular-osteotomy-for-acetabular-dysplasia-a-qualitative-interview-study-on-challenges-and-opportunities-am/attachment/289227.docx>
