

pp Patients' experiences of involvement,  
motivation and coping with  
physiotherapists during subacute  
stroke rehabilitation – a qualitative  
study



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# Abstract

## Purpose

Physiotherapy is an important, integral part of rehabilitation after stroke. The study aim was to explore and describe patients' experiences of involvement, motivation, and coping in interaction with physiotherapists during subacute stroke rehabilitation.

## Methods

The data derive from qualitative semi-structured interviews of six patients following subacute stroke rehabilitation. The interviews were analysed using systematic text condensation.

## Results

Two categories were identified: (1) 'The physiotherapist's contribution', including the themes of motivation through goal attainment, transferring knowledge, and building self-efficacy through a good relationship; (2) 'The patient's internal process', including the themes of attitude and determination, comparison, the importance of feeling well and fending off passivity.

## Conclusion

This study shows that increased knowledge and a good relationship with the physiotherapist were important for the participants' involvement, motivation, and coping. Experiencing ownership of the rehabilitation process made the patients accountable, affected their activity level positively, and helped them cope with their challenges.

**Keywords:** Stroke, subacute rehabilitation, physiotherapy, empowerment, involvement, motivation, coping

# Introduction

Even though both legal and health policy documents emphasise the importance of involving patients in decisions regarding their health and the health professionals' duty to provide for this [1–4], patients with stroke still experience uncertainty after rehabilitation [5,6]. This uncertainty is due to lack of information on what to expect in the future [5,6] and having an unreliable body [6], indicating that health personnel in acute rehabilitation need to focus on patient involvement and strengthen patients' belief in their abilities to solve and cope with their health issues.

International guidelines report that up to two-thirds of patients experiencing stroke will need rehabilitation after acute stroke care [7–9]. Stroke outcomes can affect physical and cognitive abilities [10] and can lead to loss of independence [6]. During rehabilitation, the interdisciplinary personnel assist the patients to attain their desired functions and to resume their social roles [10,11]. The rehabilitation process could be seen as an empowerment process, where health professionals assist patients in mobilising their resources and cooperate in finding common solutions and coping strategies to accomplish the patients' rehabilitation goals [12,13].

Empowerment can be understood as a process to strengthen patients' autonomy by including their resources, experiences, and knowledge of their condition in the decision-making [3,13,14]. Empowerment is also sometimes described as a motivational concept with a focus on the person's meaning, competence, self-determination, and how this impact the outcome of a process [15]. In these descriptions, empowerment is an internal process within the patient; no one can make the patient empowered. The outcome aspect of empowerment does not imply that a person is either empowered or not, but empowerment is instead a continuous variable that develops and changes over time [12,16]. Nevertheless, health professionals can assist the patient in the process through interaction and dialogue.

Physiotherapists are important in the rehabilitation process of patients as they assess function and how it can affect daily life. Furthermore, physiotherapists contribute by setting goals with patients and plan activities to accomplish these goals [17]. Studies have shown discrepancies in experiences of involvement among physiotherapists and patients. In one study, the physiotherapists described patients as involved in the rehabilitation process, while the patients did

not necessarily share that experience [18]. In another study, some patients left the decision-making to therapists [19]. How physiotherapists interact with and involve patients can be explained by their experience and communication skills, the relationship between patient and physiotherapist, and the patient's personality and experiences [19–21]. How much a patient is involved in decision making may depend on the stroke severity, environmental factors and age [20]. The median age of stroke in Norway is 76 years, and 80% of patients with stroke are over 65 years [7]. Thus, many patients in stroke rehabilitation are elderly.

Whereas other studies focus on patients' involvement in decision-making and goal setting [20,22], this study emphasises how the patients' empowerment process is affected by interaction with the physiotherapists. The aim of the study is to explore the lived experience of empowerment by elderly patients in the interaction with physiotherapists during subacute stroke rehabilitation.

## Methods

This study has a qualitative design with individual semi structured interviews as method for collecting data. The interviews had a phenomenological approach [23] to encourage participants to share their perspectives and experiences related to their empowerment process during rehabilitation. Systematic text condensation, a pragmatic analysis inspired by phenomenological analysis [24], was used to analyse the data. The focus of the study was to explore how the patients experienced the physiotherapist's role in their empowerment process, with focus on involvement, motivation and coping during their subacute stroke rehabilitation.

### **Participants and recruitment**

The participants were recruited at the end of their stay in an in-patient neurological rehabilitation unit in a university hospital in Norway. The patients were referred directly from the stroke unit to the rehabilitation unit. Patients admitted to the rehabilitation unit are normally patients needing an interdisciplinary team, with a modified Rankin Scale score of 2–4 and with the aim of returning home. The normal length of stay is 3 weeks, after which some patients are discharged home and others referred to further rehabilitation closer to home.

The criteria for inclusion were patients with first-time stroke in need of physiotherapy who had attended rehabilitation for 2–4 weeks and who were able to take part in an interview. The participants also needed to be able to reflect on and discuss their involvement in the rehabilitation process. Patients with severe cognitive impairments and aphasia were therefore not included.

Each potential participant received oral and written information about the aim, background, and procedure of the study from the recruiting physiotherapist. Information about the interviewer's background as a physiotherapist with experience from stroke rehabilitation was also included. It was emphasised that their experiences were important to enhance knowledge of the physiotherapists' role during stroke rehabilitation. If they agreed to participate, they signed an informed consent form stating that participation was voluntary and that the data could be used in a research paper.

Seven participants were recruited at the end of their stay in the rehabilitation unit. Six participated in the study (Table 1), while one person had a family emergency that prevented participation. The participants stroke resulted in left-sided impairments affecting functions such as sight, sensorimotor abilities, balance, and walking. Two of the participants could walk independently, one still needed assistance in mobilisation, while the remaining participants used walking aids.

[Table 1: Description of the participants.](#)

## **Data collection**

An interview guide was developed by the first author, as she has experience from stroke rehabilitation, and was discussed with the other authors. It was piloted to ensure that the questions in the interview were understood by the patients. Using a semi-structured interview guide allows patients to steer the dialogue towards the experiences that are relevant to them, and thereby also broaden the perspectives of the researchers.

The interviews were arranged by phone and three were carried out in the participant's room in the rehabilitation unit the day before discharge, and three in participant's home a week after discharge. Only the interviewer and the participant were present during the interviews. Before the interview started detailed information about the study was given. Qualitative research cannot

guarantee how the study will evolve and participants cannot know in advance what they will disclose. Therefore, the interviewer summarised her perception of the topics of the interview and asked for the participant's feedback, or if there was more to add. We also included repeated informed consent. This means that the participants were asked at the beginning and end of the interview to confirm their consent.

The interviews lasted between 1 and 1½ hours; they ended when the participants had nothing more to tell or the researcher had no more questions to ask. The first author performed the interviews, helped by an interview guide to ensure that topics of interest were covered in all interviews (Table 2).

[Table 2. Interview guide.](#)

## **Data analysis**

The interviews were conducted, recorded, and transcribed verbatim by the first author. All data identifying the participants were anonymized and coded to ensure anonymity and to protect the participants' confidentiality. A reflection note was written after each interview with the researcher's immediate impressions. This allowed the researcher to revise the interview guide to sharpen the focus. The analysis was conducted using Microsoft Word and started after all the interviews had been conducted. Neither transcripts nor analysis were presented to the participants.

The transcribed material was analysed using systematic text condensation, which allows the researcher to present the participants' experiences as expressed by themselves [24]. It consists of four steps of analysis. All authors read the interviews separately, the first author analysed the data, and all authors discussed each step of the analysis, which enhances the trustworthiness of the study. The analysis process was not linear, despite being described that way. The first step entailed reading the interviews several times with an open mind, bracketing our preconceptions, to get an impression of the material and find preliminary themes based on the participants' experiences with rehabilitation. The second step consisted of identifying, classifying and sorting meaning units in the text based on the research questions. Meaning units were words, sentences or paragraphs that gave information about the themes of the study. The meaning units were sorted and coded according to the preliminary themes. In the third step, the meaning units in each preliminary theme were sorted into themes that

revealed different aspects of the main category (Table 3). For each theme, the first author wrote a condensate. A condensate is an artificial quotation where the participant's voice is maintained as far as possible. The descriptions and content of the themes were adjusted throughout the first three steps as understanding evolved. The last step was to synthesise the findings from each theme and create an analytic text. The analytic text presented the most essential content and meaning based on what the condensed meaning and quotes revealed about the project's research questions. Finally, the themes were validated with the earlier steps and the original interviews, and the results were discussed in light of other research and theories.

[Table 3. Example of development of a category.](#)

## **Ethical considerations**

The Norwegian Centre for Research Data and the local Data Protection Official approved this study [25]. The project followed the ethical principles developed by the Declaration of Helsinki [26].

## **Results**

The results of this study include two main categories related to the patients' experiences of involvement, motivation, and coping: the physiotherapist's role and the patient's internal process. The themes identified under these categories are presented in Table 4.

[Table 4. Findings of the patients' empowerment process.](#)

### **The physiotherapist's contributions**

This category relates to how the participants experienced the physiotherapist's role in their involvement, motivation and coping strategies during subacute rehabilitation. Three themes emerged from the participants' stories: motivation through goal attainment, transferring knowledge and building self-efficacy through a good relationship.

#### **Motivation through goal attainment**

Most of the participants remembered discussing the main goals or purposes of



treatment with either their physiotherapist or the interdisciplinary team. They all experienced a common understanding of treatment goals with the physiotherapist. These goals, the most important of which were to be able to walk independently and to be able to live at home, were especially important for the participants' motivation early in the rehabilitation process.

Most participants felt the need to set realistic goals when working with the physiotherapist. However, some had ambitious goals that they thought were unrealistic or achievable only in the very long term, like Participant 3 who laughed while saying, *'If somebody asked me, of course I am going to be able to run! No, I can forget about that'*. Even if the participant did not think it would ever happen, this goal inspired and motivated him. A few had short-term goals that they worked towards on their own, while others wanted their physiotherapist to set the short-term goals for them.

Patients' goals and progress had a great impact on their motivation, as well as on their self-efficacy. Experiencing progress was essential for maintaining a positive attitude. Each step closer to the goal was an achievement.

*You know, if you set some goals and you reach them, you also make some achievements. For most of us that is important. If you don't have any goals, you won't experience triumphs either.* (Participant 1)

### **Transferring knowledge – slowly becoming the expert**

The participants viewed the physiotherapists as very knowledgeable – as experts. They felt reassured by the physiotherapists' approach because the physiotherapists shared their knowledge and gave understandable explanations. Trusting in the physiotherapists and their knowledge led the participants to act as they advised.

*I have wanted to do exactly as the physiotherapist tells me to. I am not the expert, she is. That is why she is here. It would be idiotic not to do so when you have an expert at your disposal.* (Participant 1)

Even though the participants viewed the physiotherapist as the expert, some felt they had regained knowledge and experiences to try out activities against the physiotherapist's advice.

All the participants experienced physical impairments. Becoming more



knowledgeable about stroke gave them an understanding about how the body functions and recovers after a stroke. The physiotherapists' explanations were also important for the participants' understanding of the physiotherapists' priorities, especially if these priorities deviated from the patients' own. Participant 2 and his physiotherapist had different views about what was important to focus on for the treatment: the participant wanted his strength back, while the physiotherapist wanted to focus on stability and balance first. Participant 2 said,

*It was fair enough, she [physiotherapist] explained why. At first, we must get control and balance, so the nerve pathways would be rebuilt correctly. You know, the brain controls the muscular system. She explained to me that there is no point in being strong if you can't master walking. So, it was very good feedback as to what I should prioritize in the beginning.*

Participant 6 clearly expressed that it was a collaboration and that he and the physiotherapist contributed different knowledge. The participant underlined that the physiotherapist needed to understand how he experienced his body to know what to plan for, and to adjust the treatment appropriately:

*It is cooperation. It's indisputable, it's my body we are dealing with, you know. That is what we are going to build up, and it must be done based on how I experience my body. While she [the physiotherapist] knows nothing about that, really.*

The knowledge the participants gained made most of them more aware of the importance of their activities. They learned how to customise the intensity when training, to correct themselves, and at the same time motivate themselves.

*I got good explanations all the time. And I have used them here (at home) as well, a lot! And I still do. (Participant 5)*

*The exercises, I did them so many times that I know what to do. (Participant 3)*

### **Building self-efficacy through a good relationship**

Although the participants called the physiotherapists experts, most of them felt they could contribute with their own knowledge, especially in terms of how they experienced their own body, both during and after treatment. They felt that this knowledge affected their treatment plan. Participants felt the necessity to be

involved to varying extents. Participant 1 felt that 'the interaction with the therapist is essential. It would be wrong if she did all the work without explaining why'. Participant 4, on the other hand, was satisfied with the physiotherapist's plan: 'They know what they are doing. It is not like they are experimenting on us; they have experience in this'.

A good relationship with the physiotherapist was important for collaboration. The participants reported having open communication, where they felt at ease and were not afraid to ask questions. A good mood and laughter were also important aspects of the interaction. The participants praised both the personality and the communication skills of the physiotherapists. The participants preferred specific feedback, as this was perceived as actual progress. Feedback on progress increased their motivation and self-efficacy. They also experienced that the physiotherapists supported them and gave them hope. As Participant 2 put it;

*Oh yes, she encouraged me! She pointed out how I was progressing. It was really good feedback. It gave me some hope!*

## **The patient's internal process**

The participants also described other factors that were important for their empowerment process, namely their innate attitude and determination, comparison and interaction with other patients, the importance of feeling well and how they fended off passivity.

### **Attitude and determination**

All the participants were aware of how their own attitudes and determination influenced their motivation and how they coped with their disability. They described their own attitudes as a positive trait, and it made them believe that they would recover. Although Participant 6 was positive, he also felt that he was to blame for his stroke because of the way he had lived his life. He was aware of his responsibility for his rehabilitation and was grateful for the help he received. For Participant 2, faith in God was important both for comfort and how to cope. The experience of letting Him support and take care of you through the challenges ahead; 'It is a comfort. No matter what, God does not abandon you'.

Although they all had positive attitudes, the participants' coping strategies differed. A few wanted to be taken care of and did not do much on their own, whereas others were more aware of the importance of their own effort. Their

self-confidence and self-efficacy had a great impact on their activity level. Looking ahead was one way of dealing with the great changes that followed a stroke. Participant 1's coping strategy was not to think about how things had been, but rather to look ahead and celebrate the progress he had made. It was discouraging for him to compare his current situation and the progress he had made to how he had been before the stroke.

*Your mind is extremely important. If you say, 'I can't do this', you can just forget about it. There is only one way, and it is only up to you. To put it bluntly, you can easily achieve nothing!* (Participant 1)

Several participants described themselves as impatient. They wanted to do as much as they could to achieve their goals. They believed that being impatient made them more active and gave them motivation to exercise on their own. Some also pointed out that becoming more knowledgeable would prevent them from hurting themselves or doing the wrong activities.

*I felt the activities helped, so I continued after the sessions with the physiotherapist. They had to hold me back because I was eager.* (Participant 5)

Some participants were very compliant with the physiotherapist's advice on what activities they could do on their own. The ones who disregarded the advice of their physiotherapist explained that they had made the assessment that they could manage on their own. Most of the participants were oriented towards finding good solutions to their challenges. They wanted to define their problems and set goals, and to find strategies to help them accomplish those goals. They knew that it would take time, and they were willing to learn.

*First, you must define your problems, right? Then you must find a way to solve these issues. From there, you will see if you have succeeded or if you chose the right way to do it. The first word that I can think of is help. You get tons of help here. You can use the help to cope with your problems. The most important thing we do here, we play on the same team and have a positive attitude towards everything we do.* (Participant 6)

### **Comparison – it could have been worse**

The participants spent a lot of time with the other patients in the rehabilitation unit. They got to know each other, shared experiences, and supported each other during their stay. Being able to support others was felt to be as valuable as

receiving support. At the same time, many of them observed and compared their progress to that of others. This made them notice which strategies seemed to work. More than one commented that the most inactive patients did not have the same progress as those who applied themselves. They observed that a person's activity level was important for his progress. They celebrated the other patients' progress, and it gave them hope and motivation.

*I could actually see the changes, in his hands, sitting across from him. I could see the progress, and he was so pleased. (Participant 3)*

### **The importance of well-being**

All the participants were satisfied with the rehabilitation. They developed good relationships with the other patients and the staff. The participants emphasised the importance of humour and positive attitudes of the staff at the unit. It gave them joy and motivation. The participants also felt that the staff genuinely cared for them. They did not just have conversations related to their disease but felt that they also got to know the staff. The staff often pointed out the participants' progress and gave positive feedback.

*It was everything, really, that provided motivation, all the great people there. They pushed you with positivity and optimism. It really kept you going. (Participant 2)*

Having family support was important for the patients. They found that their families were welcome at the rehabilitation unit. Both the welcoming atmosphere and the participants' progress gave the families a positive attitude towards the rehabilitation, which further enhanced the participants' motivation.

*The family is welcome, whenever. They are also very pleased when they see that I can move my finger like this. They are overwhelmed. That gives my positive attitude a boost as well. (Participant 6)*

### **Fending off passivity**

One reason for the experience of passivity was that the staff were very accommodating. The participants perceived this as due to limited time and it was often more efficient for the staff to help them rather than support them in their activities. Participant 1 had told the nurses that he could do the activity himself if he just got more time to do it. In the beginning, he felt that he needed the help, but after a while, he felt it was an obstacle to his independence. He said to the

staff, *'I have to do this myself. I can't take you home with me to tie my laces'*.

Some of the participants felt that the limitations the physiotherapists set for them as to what they were 'allowed' to do on their own prevented them from being as active as they would have liked. Some of them did what they wanted, regardless of the physiotherapists' warnings, while others complied with the limitations, even if they thought they could manage.

*I was a bit constrained by the physiotherapist, by the safety requirements. I would have liked to walk with a walking aid, but I am not allowed to yet. There are supposedly some requirements I must fulfil before I am allowed to, and I have accepted that.* (Participant 6)

Insecurity also contributed to the passivity of some participants, especially in the beginning of the rehabilitation stay. They were unsure about what stroke and rehabilitation entailed, what the expectations for their activity level were and whether they could or ought to use the gym on their own. This insecurity led to decreased independent activity, and for some it might have been an obstacle to involvement when setting goals at the start of the rehabilitation. One participant experienced mixed messages from the doctor in the rehabilitation unit and his GP regarding how physically active he could be. This increased his insecurity when returning home.

## Discussion

The main aim of this qualitative study was to explore the lived experience of empowerment by elderly patients through involvement, motivation and coping in interaction with the physiotherapist during subacute stroke rehabilitation. Seven themes of interest emerged from analysis of the data. The first three themes centred on the physiotherapist's contribution to the patient's empowerment process: 'motivation through goal attainment', 'transferring knowledge – slowly becoming the expert' and 'building self-efficacy through a good relationship'. The next four themes concentrated on the internal process of the patient: 'the participant's own attitude and determination', 'comparison – it could have been worse', 'the importance of well-being' and 'fending off passivity'.

The results of this study indicate that the relationship with the physiotherapist was important for the patient's empowerment process during stroke

rehabilitation. The participants experienced an open dialogue, open for both laughter and serious questions. The participants also appreciated the physiotherapists' willingness to share their knowledge, and thereby developed respect and trust in the physiotherapists' knowledge and practice. By sharing their knowledge, physiotherapists can alleviate the lack of stroke knowledge reported by patients [27,28], and thus facilitate patient involvement during the rehabilitation process [22]. Because of the complexity of the disease and lack of knowledge, patients need to learn and adjust to the functional losses, and it may take time before they can be as involved as health policy documents recommend [1,11,19]. The participants described the physiotherapists' explanations as educational. The newly obtained knowledge together with their own determination helped them to be involved in their rehabilitation and to find strategies that worked for them. Therefore, patient education and dialog seemed important for empowering the patients, and this is supported by other studies reporting that good communication and information empower and foster autonomy [17].

Reallocation of knowledge is also a reallocation of power, and is an important aspect of the empowerment process [13]. Being informed can make it easier to be involved in decision making and thus be more in control. The participants described different needs for involvement, which suggests that not everybody feels the need nor has the capacity to be involved in the decision-making progress. To find out to what extent patients want to be involved can be challenging for physiotherapists. Notable, if a patient leaves the decisions to the physiotherapist, it does not necessarily mean that this patient is less empowered than one who is active in decision-making. On the contrary, leaving the decisions to the professional might indeed be an autonomous and empowered decision in itself in the situation at hand. The participants in our study all appreciated learning about stroke and how it affected their functions; this gave them a sense of control [14,29]. For some, the increased knowledge also led to decisional control or action in that they could use their knowledge to manage the new challenges, while others still left the decisional control to the physiotherapist. Research supports the findings that knowledge and understanding are important factors in helping patients come to terms and better cope with their challenges [18,30], and emphasise physiotherapists' responsibility to incorporate patients' experiences in the rehabilitation process [18]. Physiotherapists might take greater responsibility to ascertain the information need of patients to give them a sense of control that can lead to action [14]. Strengthening the patients' sense of control might help them to be more assertive in expressing their need for more activity

during the rehabilitation to fend off the passivity experienced. This might be especially important for patients that are insecure and leave the decisional control to health personnel. Thus, the outcome of the empowerment process can vary according to different people's processes and need of information and control, as well as how the physiotherapists manage to meet the patients' information need.

The consequence of empowerment as an internal process is that there are many solutions to seemingly similar problems [31]. As other research has reported, the participants learned by observing and talking with other patients to find out which coping strategies seemed most effective [30]. Looking ahead and not dwelling on the negative aspects of stroke seemed to be a coping strategy that many of the participants adopted. Finding meaningful activities is also important for both coping and motivation [32]. Research indicates that physiotherapists often set goals focussed on impairment level [22], whereas patients' goals are often broader and directed towards activities [33]. In our study, it seemed that the participants understood why the physiotherapists' focus on impairment was important for their desired activity. Combining the different foci and collaborating in the treatment sessions gave them a sense of mastery and control. This was evident when patients chose to walk on their own even when the physiotherapists had placed restrictions on this activity. The participants felt confident in their own decision and took responsibility for walking safely. Experiencing that they mastered activities increased their motivation for rehabilitation.

Two striking findings in this study are the participants' attitude and determination, as well as how they compared themselves to the other patients. Both findings seemed to reinforce their motivation. Motivation is an important factor for the empowerment process and needs nurturing throughout the rehabilitation process [15,17]. The participants had a very positive experience of their rehabilitation, which seemed to reinforce their own positive attitude and determination. Most of them possessed an inner drive to persist with exercise, even on their own. The knowledge they obtained made them aware that rehabilitation is a process that required persistence of themselves. Several of the patients acknowledged that they had a responsibility for their rehabilitation and were eager to use the exercises and activities they were taught in treatment both during the stay at the rehabilitation unit as well as after returning home. Even though they described the physiotherapists as the experts, they were themselves becoming specialists in their own situation. They realised that the combination of



their own knowledge and experience and the physiotherapists' expertise were vital for their recovery. Through their increased knowledge that also enhances their capacity for autonomy, their recovery process could also be considered an empowerment process. Being involved in their rehabilitation and experiencing that their effort had an impact increased the participants' belief in their capability to reach their goals. It is important for stroke patients to have achievable goals to strive for [18,34]. Specific feedback was especially important because it let them know how they had improved. Even though the rate of progress towards reaching goals is highly motivational [35,36], and several of the participants described themselves as impatient, they realised that it could take time to reach their main goal. This did not seem to decrease their motivation; they were more concerned with doing it right than doing it fast. On the other hand, the participants that were more reliant on and compliant to the physiotherapists' advice seemed more insecure and restricted in exploring what they could manage on their own. To fend off the passivity expressed by the participants, the physiotherapists and the rest of the staff could promote and support the patient's activity goals. Another important factor for motivation was acquired by observing other patients and learning how their effort affected their progress. This showed them which coping strategies were effective for progress, and that those who applied themselves were rewarded with greater progress. They also enjoyed giving feedback and encouragement as well as receiving support themselves. The communal area and the rehabilitation unit's facilitation of interaction between the patients gave them the opportunity to observe, learn and support each other. Social support from other patients can alleviate the adjustments after stroke and sharing experiences can be motivational [5,6]. This also seemed to prevent boredom and loneliness, which are mentioned in other studies [17].

## **Methodological limitations and strengths**

This study was inspired by the phenomenological view of lived experience as valid knowledge. We used a phenomenological approach to the interviews and systematic text condensation (STC), a method for analysis inspired by to analyse the data [24]. STC is a more descriptive approach that presents the participants experience as expressed by themselves, rather than exploring the underlying meaning. Thus, the study has had an explorative interview and a more descriptive analysis, and not a strict phenomenological approach.

Some factors must be acknowledged when considering the findings of this study. Since the mean age of the participants was 74 years, the results may not fit the

experience of a younger stroke population. Nevertheless, we believe that some of the experiences are important to consider for any age group, such as the importance of their own determination and relationships with health professionals as well as other patients. Other limitations are the fact that there were only six participants and one female participant, and patients with aphasia were excluded. More research is needed to fully understand patients' empowerment processes, especially related to their internal processes, i.e. how the feelings of guilt and faith influence the empowerment process.

To alleviate the insecurity and vulnerability patients with stroke can experience [5,6], it was important to inform the participants that their experiences would increase knowledge of the physiotherapist's role in stroke rehabilitation. We experienced the interview as an open dialogue and summarising and asking for feedback during the interview allowed participants to react to the content in the context in which it was given. The participants stated that participation in the study was a positive experience, but the ones interviewed at the rehabilitation unit could have experienced the interview as less anonymous. Another strength was the use of repeated consent, which gave the participants the opportunity to retract their consent.

## Conclusion

In this study, the participants shared how physiotherapists played an important role in their empowerment process during subacute stroke rehabilitation. Experiencing a good relationship and positive interaction with their physiotherapist were important factors relating to their involvement, motivation and coping. Experiencing progress, receiving feedback and their own determination were especially important for motivation, whereas knowledge-sharing and setting goals were essential for involvement and coping. The way physiotherapists involve patients in the rehabilitation process enhances their ownership of their rehabilitation, affect their activity level positively and help them cope with their challenges.

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## Disclosure statement

The first author was on leave from a position at the university hospital where recruitment took place. The views and statements expressed in the submitted manuscripts are the three authors' own and not those of the affiliated institutions. No potential conflict of interest was reported by the author(s).

## Ethical approval

The Norwegian Centre for Research Data, NSD, date 18.10.2016, No. 50077, and the local Data Protection Official approved this study. Each potential participant received oral and written information about the aim and procedure of the study from the recruiting physiotherapist. If they agreed to participate, they signed an informed consent form stating that participation was voluntary, and that the data could be used in a research paper.



## References



1. The Norwegian Directorate of Health. Norwegian guideline on management and rehabilitation of stroke. Oslo: Helsedirektoratet; 2017.
2. Lov om pasient- og brukerrettigheter [Patient and User Rights Act], 2001, LOV-1999-07-02-63. Available from: <https://lovdata.no/dokument/NL/lov/1999-07-02-63>.
3. WHO. The Ottawa Charter for Health Promotion Ottawa: WHO; 1986 [First International Conference on Health Promotion, Ottawa, 21 November 1986]. Available from: <https://www.who.int/healthpromotion/conferences/previous/ottawa/en/>.
4. NHS. Involving people in their own care: NHS; 2021. Available from: <https://www.england.nhs.uk/ourwork/patient-participation/>.
5. Pindus DM, Mullis R, Lim LC, et al. Stroke survivors' and informal caregivers' experiences of primary care and community healthcare services – a systematic review and meta-ethnography. *PLOS One*. 2018;13(2):e0192533.

6. Lou S, Carstensen K, Jørgensen CR, et al. Stroke patients' and informal carers' experiences with life after stroke: an overview of qualitative systematic reviews. *Disabil Rehabil.* 2017;39(3):301–313.
7. Norwegian Stroke Registry. Årsrapport 2018 – Med plan for forbedringstiltak [Not available in English. Our translation: Report for 2018.]. Trondheim – Norsk hjerneslagregister; 2019. Available from: [https://stolav.no/Documents/Revidert\\_Årsrapport%202018\\_NHR.pdf](https://stolav.no/Documents/Revidert_Årsrapport%202018_NHR.pdf).
8. Winstein CJ, Stein J, Arena R, American Heart Association Stroke Council, Council on Cardiovascular and Stroke Nursing, Council on Clinical Cardiology, and Council on Quality of Care and Outcomes Research, et al. Guidelines for adult stroke rehabilitation and recovery: a guideline for healthcare professionals from the American Heart Association/American Stroke Association. *Stroke.* 2016;47(6):e98–e169.
9. Hebert D, Lindsay MP, McIntyre A, et al. Canadian stroke best practice recommendations: stroke rehabilitation practice guidelines, update 2015. *Int J Stroke.* 2016;11(4):459–484.
10. Langhorne P, Bernhardt J, Kwakkel G. Stroke rehabilitation. *Lancet.* 2011;377(9778):1693–1702.
11. Report No. 21 (1998–99) to the Storting. Ansvar og meistring [Responsibility and coping. Towards a holistic rehabilitation policy. Not available in English]. 1998. In: Helse- og omsorgsdepartementet, editor. [regjeringen.no](http://regjeringen.no)1999.
12. Anderson RM, Funnell MM. Patient empowerment: myths and misconceptions. *Patient Educ Couns.* 2010;79(3):277–282.
13. Gibson CH. A concept analysis of empowerment. *J Adv Nurs.* 1991;16(3):354–361.
14. Rappaport J. Studies in empowerment introduction to the issue. *J Prev Interv Community.* 1984;3:2–3.
15. Spreitzer GM. Psychological empowerment in the workplace: dimensions, measurements, and validation. *Acad Manag J.* 1995;38(5):1442–1465.
16. Rappaport J. Terms of empowerment/exemplars of prevention: toward a theory for community psychology. *Am J Community Psychol.* 1987;15(2):121–148.

17. Luker J, Lynch E, Bernhardsson S, et al. Stroke survivors' experiences of physical rehabilitation: a systematic review of qualitative studies. *Arch Phys Med Rehabil.* 2015;96(9):1698–1708.
18. Wohlin Wottrich A, Stenstrom C, Engardt M, et al. Characteristics of physiotherapy sessions from the patient's and therapist's perspective. *Disabil Rehabil.* 2004;26(20):1198–1205.
19. McGlinchey MP, Davenport S. Exploring the decision-making process in the delivery of physiotherapy in a stroke unit. *Disabil Rehabil.* 2015;37(14):1277–1284.
20. Lloyd A, Roberts AR, Freeman JA. 'Finding a balance' in involving patients in goal setting early after stroke: a physiotherapy perspective. *Physiother Res Int.* 2014;19(3):147–157.
21. Schoeb V, Bürge E. Perceptions of patients and physiotherapists on patient participation: a narrative synthesis of qualitative studies: perceptions on patient participation. *Physiother Res Int.* 2012;17(2):80–91.
22. Leach E, Cornwell P, Fleming J, et al. Patient centered goal-setting in a subacute rehabilitation setting. *Disabil Rehabil.* 2010;32(2):159–172.
23. Kvale S. Epistemological issues of interviewing. In: Kvale S, editor. *Doing interviews* [Internet]. Los Angeles, CA, London: SAGE. Qualitative Research Kit; 2007. p. 11–22.
24. Malterud K. Systematic text condensation: a strategy for qualitative analysis. *Scand J Public Health.* 2012;40(8):795–805.
25. Norwegian Centre for Research Data. Data protection services Norwegian centre for research data; 2021. Available from: <https://www.nsd.no/en/data-protection-services>.
26. World Medical Association. World medical association declaration of Helsinki: ethical principles for medical research involving human subjects. *JAMA.* 2013;27(20):2091–2094.
27. Sundseth A, Faiz N Orwegian stroke population. *J Stroke Cerebrovasc Dis.* 2014;23(7):1849–1855.
28. Laver K, Halbert J, Stewart M, et al. Patient readiness and ability to set recovery goals during the first 6 months after stroke. *J Allied Health.* 2010;39(4):E149–E154.
29. Auerbach SM. Do patients want control over their own health care? A review of measures, findings, and research issues. *J Health*

Psychol. 2001;6(2):191–203.

30. Holliday RC, Ballinger C, Playford ED. Goal setting in neurological rehabilitation: patients' perspectives. *Disabil Rehabil.* 2007;29(5):389–394.
31. Rappaport J. Studies in empowerment introduction to the issue. *J Prev Interv Community.* 1984;3(2–3):1–7.
32. Antonovsky A. *Unraveling the mystery of health: how people manage stress and stay well.* San Francisco, CA: Jossey-Bass; 1987.
33. Laver K, Halbert J, Stewart M, et al. Patient readiness and ability to set recovery goals during the first 6 months after stroke. *J Allied Health.* 2010;39(4):149E–154E.
34. Melander Wikman A, Fältholm Y. Patient empowerment in rehabilitation: somebody told me to get rehabilitated. *Adv Physiother.* 2006;8(1):23–32.
35. Siegert RJ, McPherson KM, Taylor WJ. Toward a cognitive-affective model of goal-setting in rehabilitation: is self-regulation theory a key step? *Disabil Rehabil.* 2004;26(20):1175–1183.
36. Locke EA, Latham GP. *Goal setting theory. new development in goalsetting and task performance.* New York, NY: Taylor and Francis Group; 2013. p. 3–15.