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Patient Experience of Physical Activity on Prescription Following Hip Fracture

Pia Hendberg¹, Lena Zidén² and Marie Rusner³

¹Physiotherapist, unit manager Central Occupational and Physiotherapy Unit, Södra Älvsborgs Hospital, Borås, Sweden.

²Head physiotherapist Sahlgrenska University Hospital/Mölndal, PhD, Adjunct Lecturer Sahlgrenska Academy, University of Gothenburg, Sweden.

³*Head of Research, Södra Älvsborgs Hospital, Borås, PhD, Adjunct Lecturer Sahlgrenska Academy, University of Gothenburg, Sweden.*

*Correspondance:

Pia Hendberg, Unit manager Central Occupational and Physiotherapy Unit, MSc, RPT, Södra Älvsborgs Hospital, Borås, Sweden, Tel: +46 33 616 12 80; E-mail: pia.hendberg@vgregion.se.

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ABSTRACT

Introduction: Fear of falling, functional limitations and activity restriction are common after a hip fracture. *Physical activity on Prescription (PaP) aims to increase patient activity and confidence.*

Purpose: The aim of this study was to explore the patient experience of the significance of physical activity with a focus on PaP and its effect on daily life.

Method: Individual open interviews were conducted and analyzed according to qualitative content analysis.

Result: An overarching theme was formulated as "PaP entails stepping from insecurity and fear to increased physical activity and independence when undertaken with individualized support." This includes three categories: "Fear impedes physical activity", "Overcoming fear" and "Getting support to meet individual needs in order to make progress".

Conclusion: PaP cannot replace physiotherapy, but PaP increases self-efficacy and physical activity following hip fracture if carried out with individualized support. It is important to ask patients about their fears and the type of individualized support they need.

Physiotherapists possess knowledge about exercise physiology and the association between physical movement and health; they therefore play an important role in customized PaP.

Keywords

Experience, Hip fracture, Physical activity on Prescription.

Abbreviations

PaP: Physical activity on Prescription.

Introduction

Common reactions following hip fracture include fear of falling again, decreased physical activity and low confidence in coping with daily activities [1]. Physical activity on Prescription (PaP) is a method intended to support and motivates physical activity. The purpose is to maintain or improve health by increasing the patient's self-confidence and modifying behavior to achieve increased physical activity [2,3]. PaP is based on a social-cognitive theory that encompasses the concept of self-efficacy. The concept was originally defined by Bandura as "the ability a person has or perceives themselves to have to carry out an activity despite circumstances" [4]. One study on PaP following hip fracture, in which one group received PaP as a complement to customary physiotherapy, shows an increase in the level of physical activity

and increased confidence in balance associated with personal care compared with physiotherapy alone [5]. Otherwise there is a lack of studies on PaP following hip fracture.

To gain deeper knowledge and improve rehabilitation following hip fracture it is important to shed light on the participating patients' experience of PaP. The purpose of this study is therefore to describe patient experiences of the significance of physical activity based on PaP in their daily lives following hip fracture.

Method

The study was conducted using a qualitative descriptive method. Data obtained from qualitative research interviews were analyzed using content analysis according to Graneheim & Lundman [6,7]. The approach is inductive, which means an unbiased interpretive analysis of texts based on human experience and narratives. Unlike other qualitative approaches, the analysis is carried out without any connection to predetermined theory, ontology or epistemology [6,7]. In the choice of studying patient experiences, however, this study was also inspired by Husserl's life world theory and Merleau-Ponty's theory of the lived body, which emphasize the human experience of the daily world, as well as access to this world through the lived body [8]. Each change in the body in conjunction with disease or injury therefore entails a change in access to the world and to life.

Eleven patients who had undergone surgery for hip fracture at a hospital in West Sweden and who were candidates for PaP (admitted from their own homes and previously ambulatory outdoors) were asked and informed orally and in writing about participating in the study by a physiotherapist. One patient declined and one patient was excluded due to postoperative complications. Written consent was obtained from the patients by the investigators and interviews were scheduled to take place four months after surgery. Open interviews were conducted with nine patients. In order to obtain a wide variety of experiences regarding PaP, an attempt was made to vary gender, age, living situation (alone/with others), type of fracture, ambulation with/without assistive devices, as well as activity level prior to fracture (Table 1).

All patients chose to be interviewed in their homes. The interviews were conducted during the period January-June 2014 and were 17-63 minutes long. The interview began with the question "Can you describe your experience with Physical activity on Prescription after your hip fracture and what PaP means to you in daily life?" with open follow-up questions such as "How did you feel then?" and "Can you tell us more?" The interviews were digitally recorded and transcribed word for word. The material from the nine interviews comprised an analysis unit that was read through in its entirety. The sentence units that were consistent with the purpose of the study served as the basis for the analysis. These were reduced to condensed sentence units and in the next step to codes, while preserving the core content. Sub-categories were created based on these condensed units on a statement level from which three categories were formulated. A theme was formulated based on an interpretation of the categories [7]. Table 2 presents

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examples from the analysis process.

Number of patients	9
Percentage men/women	2/7
Age interval	66-90 years
Lives alone/with others	6/3
Type of hip fracture cervical/pertrochanteric	5/4
Ambulatory with/without walking aid	3/6
Activity level before the fracture [15]*: 1/2/3/4/5/6:	0/2/5/2/0/0/

Table 1: Demographic data of study population.

*1 means hardly physically active at all and 6 means intense exercise regularly, several times a week.

Sentence unit	Condensed sentence unit	Code	Sub-category
So there are friends who say: Why didn't you come and like – have you been lazy? It feels like really good pressure	Friends say: Why didn't you come? Really good pressure	Good pressure from friends	Social support

Table 2: Sentence unit, condensed sentence unit, code and sub-category identified in the analysis process of experience of PaP.

Ethical considerations

Participation was voluntary and all data were treated confidentially. The patients were free to terminate the interview at any time without giving any reasons. An ethical application was submitted before study start to the Regional Ethical Review Committee in Gothenburg, which gave an advisory opinion giving the go-ahead to execute the study; diary number 511-13.

Results

The results are presented as a theme based on three categories with a number of sub-categories. Table 3 presents the number of patients whose statements were included in the three different categories. Categories and sub-categories are presented with descriptive text and illustrated with quotation marks. The theme was identified as "PaP following hip fracture entails stepping from uncertainty and fear towards increased physical activity and self-efficacy when supplemented with individualized support". The analysis showed that PaP is a tool that promotes confidence in the capability of the body, as well as a means to increase physical activity and the courage to go out following hip fracture. However, taking the step from uncertainty and fear towards confidence requires individualized support based on the specific needs of the patient.

Category	Number of respondents
Fear impedes physical activity	8/9
Overcoming fear	6/9
Getting support based on personal need in order to make progress	9/9

Table 3: Categories and number of patients whose experience of PaP was included in each category.

Fear impedes physical activity

Strong fear concerning both physical activity in general, as well as the specific physical activity prescribed according to PaP, was a recurrent theme in the patient narrative. This fear is described in the following three sub-categories:

Fear of falling

Fear of falling again after the hip fracture was fully healed. This particular feeling was pervasive, as exemplified by the patients continually returning to this narrative during the interviews.

"It's always on my mind. It's always on my mind; I'm afraid. Afraid of falling! This fear began shortly before I fell and broke my hip, but now it's terrible!" (Interview 3).

Fear of going out

Despite the fear of falling, patients experienced a degree of security from being indoors, confined by the limitations of the room. Many patients described how their fear increased at the thought of going out.

"Well, being outside felt too big in some way, so that was probably why I didn't go out. I feel secure inside when I'm surrounded by the walls." (Interview 6).

Fear of falling without being able to get up

In this sub-category, patients describe the fear of being left lying on the ground without being able to get up, and this fear pertains especially to a sense of helplessness and vulnerability.

"Now I'm afraid. Afraid of injuring myself again and being left lying on the ground without being able to get up." (Interview 8).

"I was alone and I felt alone. If I had fallen, who would have been there to help me? I could have remained lying there on the street for several hours." (Interview 3).

Overcoming fear

Overcoming fear to become physically active is described as a gradual process. Patients gradually overcame their fear by attempting to increase their level of physical activity step by step according to their customized PaP plan. This category comprises two sub-categories:

Taking the step out

Leaving the home is described as a major emotional step. Fear and uncertainty, as well as joy and freedom, are some of the emotions described. The positive feelings predominated.

"Yes, it was an unbelievable sense of freedom. I had been completely confined here like a prison and the sense of freedom of going down the stairs and being able to go out, it was just miraculous!" (Interview 1).

Daring to try

The fear of being incapable of participating in activities was strong. The analysis showed that this fear declined as confidence in being physically active grew when the patient dared to try things and succeeded.

"I was afraid before I went outside with the physiotherapist and

then I felt that I could do it. I was able to walk even though my hip was broken, I never thought that would happen!" (Interview 4).

Getting support based on personal need in order to make progress

Support was necessary to overcome fear, to dare, and to make progress being active in daily life. This category comprises four sub-categories:

Need for professional support

Individualized support provided by a physiotherapist played a significant role during the first period after discharge, but once the patient had the opportunity to try and succeed at being physically active this need for support gradually decreased. The patients dared to trust their bodies and became more independent as they became more physically active.

"And then he (the physiotherapist) said, 'Now we're going out', and I said, 'I can't', but he said, 'Yes you can, let's go!' I became more confident then, but I wouldn't have dared to do it myself, to follow my PaP without help." (Interview 1).

Social support from friends and family

Support from friends and family both motivated and strengthened patients in daring to be physically active. This support showed them that physical activity was important and that they had confidence that the patient could do it.

"Well, my children told me that I have to go out and exercise. When they call me at home they say 'You've been out in this beautiful weather, haven't you?' And this is helpful to me because I make the effort!" (Interview 2).

Physical support provided by walking aid

Here patients described how they felt safe and secure when they had something to lean on, which made it possible to increase physical activity.

"But that's good, because if you have a rollator, you feel secure and you can't fall. So I began going out with it and it felt good; I wasn't afraid of falling on my face again." (Interview 3).

Support from PaP plan

Patients pointed to their customized PaP plans as evidence of the importance of physical activity. It served as an aid to remember how to carry out the individual exercise plan.

"I think it feels really helpful. Because it clearly states exactly what I have to do and I don't forget anything." (Interview 9).

Discussion

The purpose of this study was to describe patient experiences of the significance of physical activity based on PaP in their daily lives following hip fracture.

The study's overarching findings show that: "PaP following hip fracture entails stepping from uncertainty and fear towards increased physical activity and self-efficacy when supplemented with individualized support". The results show that taking steps from uncertainty and fear towards confidence requires individualized support based on the specific needs of the patient. This was confirmed by previous research on PaP from the standpoint of the theory of confidence on which the method is based [3,4]. The results support the intention of PaP as a method that is gradually able to increase confidence in one's own ability. However, the results also show that PaP requires the addition of support and interventions. PaP cannot replace rehabilitation using the presence and support of a physiotherapist in this patient group during the early phase following hospital discharge.

The patients repeatedly describe their fear of falling again. This is expressed in the category Fear impedes physical activity. This strong fear, which limits physical activity in patients who have undergone surgery for hip fracture, has been well described in the past [1,9]. It is important to find methods that reduce patients' fear and increase confidence in their ability to be physically active, since physical activity reduces the risk of osteoporosis [10], increases muscle strength, improves balance and decreases the risk of falls and fall-related injuries [10,11].

In the category Overcoming fear, participants describe how they gradually dare to try the prescribed physical activity. Confidence in their capability is activity-related and appropriate support can lead to increased confidence and levels of activity [12]. Home rehabilitation, in which physiotherapists and occupational therapists played a key role, was provided to patients who had suffered a hip fracture. The intervention focused on supporting patients to develop confidence in their capability and balance, as well as on early resumption of activities outside the home, which helped patients feel safer in their daily activities and increased their self-efficacy, activity and functional capability [13].

The category Getting support based on personal need in order to make progress describes various forms of support on the road to patients independently carrying out PaP. Similar support for elderly people to help them to be physically active is described in a metasynthesis [14] that examines the perspective of elderly individuals concerning physical activity, as well as obstacles and opportunities to participate. The findings from the study show that it is important to integrate physical activity into daily life and to increase knowledge regarding physical activity.

The participants underscored the importance of social support, reducing environmental obstacles and offering access to arenas of physical activity. Several factors influence the physical activity level of the individual and choice of physical activity. The authors hold that the importance of support and follow-up cannot be sufficiently underscored if results are to be successful.

One weakness of the current study may be that the analysis is based on only nine interviews, which is a small number from which to draw definite conclusions. The selection has, however, been characterized by a multitude of experiences of the examined phenomenon, which is a strength in the study. The results may to some extent have been influenced by the fact that two of the authors have experience of working with PaP. The authors have, however, reflected on this pre-understanding throughout the research process in order to minimize any influence on the result.

Conclusion

This study confirms that PaP occupies a justifiable and important place in the rehabilitation process following hip fracture and also underscores the importance of individualized support in the effort to increase levels of physical activity. When working with PaP it is important ask patients about any fears they may have and what individualized support they may require.

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