PERCEPTIONS OF COMMUNITY-DWELLING OLDER PEOPLE ON ProPA - HOME-BASED REHABILITATION AND PHYSICAL ACTIVITY

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ABSTRACT

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The purpose of this Master's thesis study was to qualitatively explore the perceptions of the participants of ProPA -project on the home-based rehabilitation program and to investigate the barriers and facilitators of adhering to physical activity related rehabilitation. There is a gap in existing research concerning the perceptions of older adults with musculoskeletal injuries on their home-based rehabilitation experiences and perceived barriers and facilitators on physical activity tasks related to rehabilitation. The present study strived to contribute to that void by representing an interpretation on ageing home-based rehabilitation participants' experiences and perceptions of their barriers and facilitators of physical activity related to the intervention. Bringing the voice of older adults into the planning of person-centered rehabilitation programs may lead to implementation of more effective rehabilitation strategies.

The data was collected as semi-structured face-to-face interviews from participants (n=5) of ProPA-project after the 6-month follow-up of the research intervention. Data was analysed using Interpretive phenomenological Analysis.

The results of this study suggest that the participants perceived the ability to stay mobile, to take care of oneself and everyday chores, to build muscle strength and to enhance motivation to stay active, as the most important benefits of rehabilitation. Having a human contact was perceived as one of the most valuable aspects of the rehabilitation program. Seven major themes with multiple sub themes of barriers and facilitators of adhering to physical activity related rehabilitation emerged from the data set. The major themes were identified as physiological, emotional, and learned factors, and factors related to social support, the physical environment, healthcare, and rehabilitation. A bilateral nature of function enhancing (facilitator) and disability maintaining (barrier) aspects of the same phenomena could be perceived in the themes.

Previous and comorbid health problems, pain, and fear of falling emerged as prominent barriers to physical activity related rehabilitation tasks in this study, which supports previous research on older people's PA and rehabilitation determinants. Yet, the perception of not being heard by healthcare and rehabilitation personnel over these issues was a unique and recurrent factor across the study. Social support factors and trust towards professionals were perceived facilitators, suggesting that emphasis on social support approaches with a psychological behavior change focus can facilitate participation in rehabilitation tasks that are PA related. The results also underline the importance of individual tailoring in different levels of planning of rehabilitation designs.

Further research on the effects of integrating psychological behavior change techniques, and functional assessment methods, to physical activity related home-based rehabilitation, are recommended. Furthermore, investigating the influence of psychological emotion regulation or acceptance techniques on fear of falling are suggested. Moreover, research on physical activity and mobility of older adults living at home compared to other living options is needed.

Key words: older people, older adults, physical activity, home-based rehabilitation, barriers and facilitators of PA, qualitative research

ABBREVIATIONS

HCBS	Home- and community-based services
ICF	International Classification of Functioning
IPA	Interpretative phenomenological analysis
PA	Physical activity
ProPA	"Promotion of Physical Activity" – project 2015-2017
RCT	Randomized controlled trial
SPPB	Short Physical Performance Battery
WHO	World Health Organization
UN	The United Nations

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1 INTRODUCTION

This Master's Thesis study is a part of a larger research project "Promotion of Physical activity", 2015-2017 (ProPA, Iäkkäiden kuntoutujien fyysisen aktiivisuuden edistäminen) which investigated the effects of a home-based rehabilitation program on physical activity and mobility of community-dwelling people aged 60 and over, who were discharged from hospital after a musculoskeletal injury or disorder (Turunen et al., 2017). The intervention program was primarily developed to increase physical activity but information on the potential enhancement of the life-space mobility, physical functioning and social participation were also of interest in the ProPA -project (Turunen et al., 2017).

In the previous "Promoting mobility after hip fracture" (ProMo) –project 2008-2011 (Sipilä, & al. 2011; Edgren, & al., 2013) the results showed that the rehabilitation clients who are in a better condition in the beginning of the rehabilitation process are the ones who tend to benefit from rehabilitation promoting physical activity. There is still a proportion of participants who do not follow up the instructions or do not seem to benefit from the rehabilitation. Correspondingly, in the first phase of the ProPA -research project (Turunen et al., 2017) it was noted that some of the participants had difficulty to perceive the significance of the home-based rehabilitation or their own physical activity to their rehabilitative process. Home-based activities were not always seen as rehabilitation and remembering or understanding the mutually set goals for rehabilitation was hard for some participants. These observations lead to the need of qualitative inquiry to explore the barriers for those who, according to quantitative measurements, have a risk of not benefitting from the-home-based rehabilitation process. Moreover, the results of the randomized control trial conducted in the ProPA-program showed no significant between-group differences in physical performance (Turunen et. al., 2020). The authors of the study discussed that older adults with severe mobility limitations would have needed a more comprehensive and longer intervention upon their return from the hospital. Thus, there is still a research gap concerning the factors explaining why some people seem to benefit less from home-based physical rehabilitation, and the determinants that facilitate rehabilitation in home-based contexts. Furthermore, there is a clear gap on research addressing the perceptions of older adults with musculoskeletal injuries on home-based rehabilitation and perceived barriers and facilitators on physical activity related rehabilitation tasks.

The purpose of this Master's thesis is to qualitatively explore the perceptions of the participants of ProPA -project on the rehabilitation program and their own rehabilitative potential in the situation. A more precise aim of this study is to investigate the barriers and facilitators the participants have experienced towards physical activity and their home-based rehabilitation tasks. The study attempts to inductively shed light on the possible determinants behind participants benefitting or not benefitting from the rehabilitation process to further improve the future restorative rehabilitation interventions for ageing people. With the proportion of ageing people growing in the world, home-based rehabilitation programs that aim to maintain and enhance mobility and function are needed. When planning more effective and individually tailored rehabilitation programs, deeper knowledge of the experiences of the participants is valuable.

2 PHYSICAL ACTIVITY AND HEALTH AMONG OLDER PEOPLE

The number and proportion of people aged 60 and over is growing rapidly worldwide, and at the same time the number of those aged 80 and older is growing even faster than the overall number of older persons (United Nations, Department of Economic and Social Affairs, Population Division, 2015). While the global population of older people is expected to more than double in current size by 2050 and to reach nearly 2,1 billion, due to decrease in both mortality and fertility, changes are needed to adapt health systems to serve and understand the diverse needs in health and wellbeing (United Nations, Department of Economic and Social Affairs, Population Division, 2015). In this research paper the terms of "older people", "older adults" and "the ageing" are used as synonyms when referring to persons aged 60 and older. In this chapter effects of physical activity, and interventions using physical activity are explored as one means to the growing demand on health promoting services to older populations.

2.1 Compression of Morbidity, Healthspan, and Optimal Longevity

The primary scheme in gerontology and the study of ageing for the last three decades has been the strategy of compression of morbidity (Seals, Justice, & LaRocca, 2016). Fries (1980) originally introduced the term "compression of morbidity" suggesting that the amount of disability can be decreased by compressing the span between the onset of disability and the occurrence of death and postponing the chronic illnesses. By delaying the age of onset of chronic illnesses and disability, morbidity can be limited to a shorter period closer to the natural end of life, thus decreasing the total amount of diseases and disability (the morbidity) (Seals et al., 2016).

More recently the idea of extending the healthspan has been adopted in the field of biological ageing research, geroscience (Seals et al., 2016). Healthspan is seen to increase when morbidity and disability are effectively decreased by raising the age of onset (Crimmins, 2015). The concept conjoins information on mortality and morbidity. When morbidity rate is reduced and recovery rates are increased, without the decrease in mortality, the length of healthy life is raised and population health increased (Crimmins, 2015). As the term healthspan is commonly interpreted to mean "maintenance of functional health with

increasing age", understanding the vast amount of factors that can modulate functional decline with age (including exercise, diet, and lifestyle), and maintaining function and independence of the aging population with specific interventions, seem to be the biggest challenges in today's geroscience (Melov, 2016). Aging sets the process of morbidity into action and a number of health outcomes are linked to age (mortality, heart disease, functioning loss, cognitive loss), therefore the focus should be in prolonging health and function, instead of only preventing death and treating people with illnesses (Crimmins, 2015).

With the ideas of compression of morbidity and healthspan as a background, Seals and colleagues (2016) propose a concept of optimal longevity, encompassing a long life with good health and quality of life. A major obstacle for optimal longevity is the age related progressive deterioration in physiological function causing disability and functional limitations like reduced mobility, hence, primary aim in prevention should be to develop effective strategies to delay declines in function, and the secondary aim to enhance function and slow additional decline in those with already disabled in functioning (Seals et al., 2016).

Recognizing the need to address function in addition to the individual differences increasing with age, World Health Organization (2002, 14) has proposed a Life Course Approach on ageing. This perspective highlights the importance of interventions that cultivate supporting environments and healthy lifestyles throughout the lifespan to manage the disproportionate growth of costs induced by diseases of later life. Although the life course approach underlines healthy life choices and supportive external factors throughout adult life to prevent premature disability, the decline of functional capacity can be influenced at any age (WHO, 2002,14).

2.2 Policy frameworks for healthy and active ageing

As the population of older adults is increasing worldwide guidelines and policies for healthy and active ageing are constructed to ensure high-quality health services and quality of life for ageing people. In the United Nations (1991) Principles for Older Persons resolution, governments are encouraged to incorporate the principles of independence, participation, care, self-fulfilment, and dignity into their national programmes concerning the ageing.

Based on the United Nations' resolution The World Health Organization (2002) has adopted the concept of "active ageing" to express the process of ageing as a positive experience

accompanied by “optimizing opportunities for health, participation and security in order to enhance quality of life as people age”. In this WHO (2002) definition the term “active” does not only refer to the ability of being physically active or to be able to work, but also to all participation in different areas of life (social, cultural, spiritual, economic and civic affairs). The key goal is to maintain autonomy and independence also at older ages, but additionally to promote interdependence and intergenerational solidarity for different generations to provide mutual support when needed (WHO, 2002).

As strategies on active ageing are emerging, Walker (2002) has outlined the following seven key principles that should be incorporated in the concept for it to play an effective role in responding to the challenges of the population ageing:

1. Activity should comprise of all meaningful pursuits of wellbeing, not only those concerned with employment or production.
2. Active ageing should include all older people, even the ones that are frail and dependent, because the relationship between activity and health remains all the way to advanced old age.
3. The primary focus in active ageing should be the prevention of disability, dependency, diseases and loss of skills, meaning that active ageing should involve all age groups. Reformative action is also needed, but prevention should be the core of active ageing.
4. Active ageing should be intergenerational, being about all of our futures, developing activities that cover all age groups, and being fair and solidary to all generations.
5. Both rights and obligations are to be embodied in the concept of active ageing, meaning that the rights should be accompanied by obligations to take advantage of what is offered and to remain active in different ways. It is important for the policy makers to find the right balance between rights and obligations.
6. Participative and empowering strategies should entail both top-down policy actions to create opportunities, enable and motivate activity, and also bottom-up chances for the individuals to create their own ways of being active.
7. National and cultural diversity is to be respected when forming policies for activity and participation.

The World Health Organization (2001) has published the" International Classification of Functioning, Disability and Health: ICF" aiming to provide a unified conceptional framework to describe and define health and health related components of well-being. This classification, integrating *The Standard Rules on the Equalization of Opportunities for Persons with Disabilities* (UN 1994), can be implemented in a broad range of domains including health promotion and enhancement of participation. Rendering means and a conceptional framework to structure information on functioning and limitations of functioning, ICF is applicable in various ways for instance as a research tool, as a clinical instrument for planning and evaluating rehabilitation, or as a means for designing and administering social policies. Hence, it is widely used in arrangement, assessment, and research of services for the ageing populations.

2.3 Relationship between physical activity and health in the ageing population

The Advisory Committee of U.S. Department of Health and Human services has rated the evidence of health benefits associated with physical activity to create the 2008 Physical Activity Guidelines for Americans. As Table 1 shows there is strong research evidence on the association of regular physical activity and a considerable number of health benefits including physical, psychological, and functional advantages. Bauman and colleagues (2016) have constructed a conceptual framework (shown in Figure 1) dividing the effects of physical activity on physiology and ageing under the categories of chronic disease prevention and risk reduction, functional status outcomes, psychological outcomes and wellbeing, and social outcomes.

TABLE 1. Health benefits, for adults and older adults, associated with regular physical activity (U.S. Department of health and human services, 2008, p. 9).

	Health benefits for adults and older adults
Strong evidence	Lower risk of - early death - coronary heart disease, high blood pressure - stroke - adverse blood lipid profile - type 2 diabetes, metabolic syndrome - cancer (colon and breast) Prevention of - weight gain - falls Weight loss (when combined with reduced calorie intake) Improved cardiorespiratory and muscular fitness Reduced depression Better cognitive function (for older adults)
Moderate to strong evidence	Better functional health (for older adults) Reduced abdominal obesity
Moderate evidence	Lower risk of - hip fracture - cancer (lung and endometrial) Weight maintenance after weight loss Increased bone density Improved sleep quality

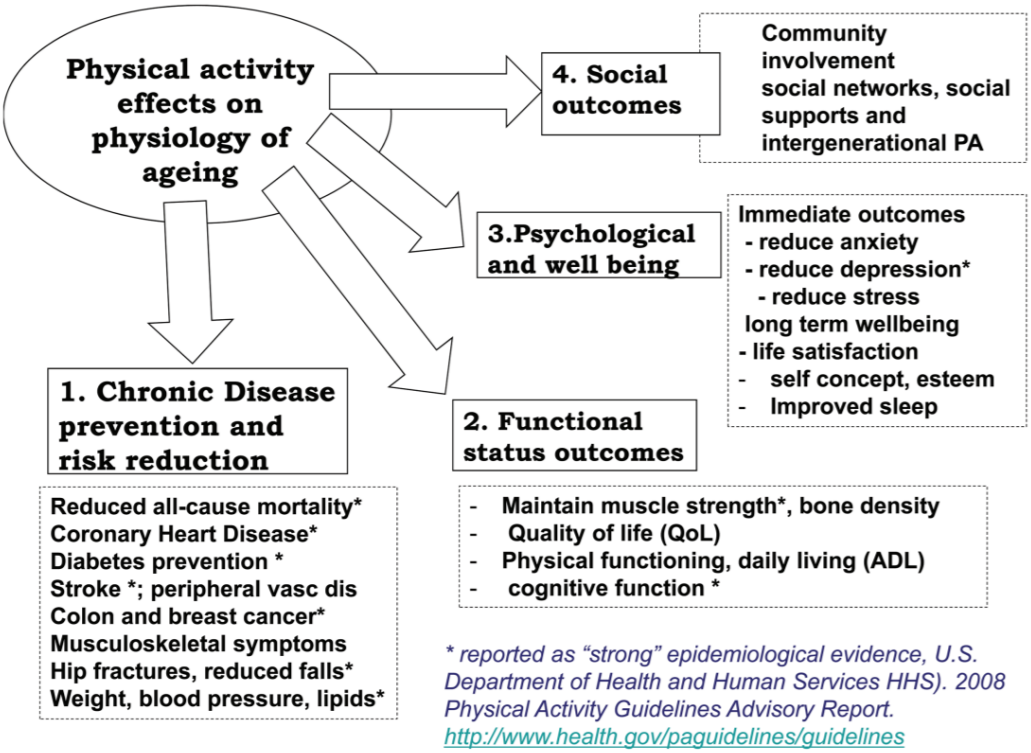

FIGURE 1. A conceptual framework for the effects of physical activity on physiology and ageing (Bauman et al., 2016).

In their systematic review on physical activity and functional limitations in older adults, Paterson and Warburton (2010) found that physical activity of an aerobic nature was related to a higher functional status in elderly people, and that moderate and high levels of physical activity increased functional independence by reducing risk of functional limitations and disability. Both aerobic and resistance exercise training interventions showed advancement in physiology and functioning, indicating long-term reduction in the frequency of mobility disability.

There are differences in the aims and procedures of promotion of physical activity in different age groups and within people with diverse health histories. The principal aim of physical activity within very old (80 years or older) or frail older people is to enhance muscle strength and to maintain independent living by limiting disability by progressive resistance training, flexibility and balance exercises (Vogel et al., 2009). In the light of research, frail and very old people benefit from physical activity that includes more resistance than endurance activities in terms of muscle strength and physical performance, but research is still conflicting regarding benefits on disability outcomes (Vogel et al., 2009).

2.4 Barriers and facilitators of Physical Activity among the ageing people

In the International Classification of Functioning, Disability and Health: ICF (WHO, 2001) facilitators are defined as contextual factors in a person's environment that improve functioning, decrease disability, and can prevent an impairment or activity limitation from restricting participation, either through their absence or their presence (e.g. accessible environment, relevant assistive technology, positive attitudes towards impairments, absence of stigma, and services aiming to increase independency in all areas of life).

Barriers are seen as elements in a person’s environment, that limit functioning and induce disability, through their absence or presence (e.g. inaccessible physical environment, lack of assistive technology or services, and negativity towards disability (WHO, 2001).

In their review, Macera and colleagues (2017) found poor physical health being the most often reported barrier of physical activity among adults over 60 years. However, the review acknowledged that older adults are aware that physical activity benefits physical and mental health as improving health was most often reported as the primary reason for engaging in

physical activity. Furthermore, fear of falling or injury, depression, lack of social support or time, physical environment, climate, the cost of activities and disinterest in physical activity were considered barriers (Macera et al., 2017). In a novel review, Hu et al. (2019) found similar results, barriers including themes related to health, time, motivation, previous exercise experiences, environment, and social barriers (Table 2). Correspondingly, increased health literacy, meaning understanding the health benefits of PA, was mentioned as a facilitator, as was social support (Hu et al., 2019).

TABLE 2. Barriers and facilitators for PA among medically underserved older adults (Hu et al., 2019).

	Theme					
	Time	Health	Motivation	Previous exercise experience	Environmental barriers	Social barriers
Jones et al., 2007	Other responsibilities		Lack of motivation		Lack of transportation, overcrowded facility	Lack of age-appropriate peers
Lattimore et al., 2011	Work and family constraints		Lack of interest or knowledge	Negative perceptions or experience	Weather, transportation, and safety concerns	Lack of peer partner, lack of person to hold oneself accountable
Mier et al., 2007	Lack of time	Physical pain, depression, and being overweight	*Sense of well-being		Transportation and safety concerns	*Family support
Pekmezi et al., 2013	Work and other roles	Low health literacy	Lack of knowledge, perception of already getting enough PA in daily life	Negative experience, fear of injury	Lack of health clubs	Lack of social support
Yuen, Wang, et al., 2013			Hair concerns *Don't want to let others down *Sense of commitment to help others			

Note: *Indicates facilitators for PA participation. PA = Physical activity.

Olanrewaju et al. (2016) in their systematic review of reviews on physical activity in healthy community dwelling older people categorised barriers and facilitators by predisposing, enabling and need factors (Table 3). The category of the predisposing factors was based on the person's proneness to participate in physical activity and included features like demographics, beliefs or emotional characteristics. Categorising items into the enabling factors was based on the assumption that certain factors (generally material resources or availability of services) must occur for participation or non-participation in physical activity to be facilitated. The need factors category refers to factors that are intrinsically considered necessary by older adults in order to admit to PA. Community dwelling older adults with previous health problems requiring PA as intervention were excluded from Olanrewaju and colleagues' (2016) systematic review which has likely affected the fact that only few need factors were identified in the study.

TABLE 3. Identified barriers and facilitators of PA uptake in older population categorised by predisposing, enabling and need factors (Olanrewaju et al., 2016)

	Barriers	Facilitators
Predisposing Factors	Health status; previous PA habits; fatigue, low self-efficacy; low perceived value of recreational PA and preference for productive / meaningful PA; lack of motivation; body image, fear, lack of social support, family and household commitments; fatalism; stigma; collectivist attitudes; cultural sensitivity; language; previous exercise experience; cultural acceptability, underlying beliefs about personality type	New personal challenge, health; enjoying the activity; previous exercise experience; Social support, social contact, role models, Facilitative relatives; Group, peer and community support; Instructor support.
Enabling Factors	Environment (Light, crime, litter, noise, heavy traffic, footpaths safety, access to and convenience of facilities), time, poor access/awareness, cost/ finance,	Communication (positive reinforcement, information, language), time, customisation (tailoring of intervention, personalised modification), making exercise fun / enjoyable / sociable, good leadership/facilitation, motivation, Convenient scheduling/ reasonable pricing/good access and transport, facilitate feeling of ownership of interventions
Need Factors	NA	Referral from health-care professional (especially doctor)

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As seen in Table 3, health status is considered to be a predisposing factor in barriers and facilitators of physical activity in Olanrewaju and colleagues' (2016) review. Other predisposing factors in which barriers and facilitators can be seen as a negative and positive aspect of the same phenomena are previous exercise experience, social support and self-efficacy.

Rasinaho and collegues (2006) used questionnaires which barriers to and motives for physical activity were categorized under themes based on previous research findings (Table 4). The claims related to barriers were categorised under the themes of poor health, fear and negative experiences, lack of knowledge, lack of time and interest, lack of company and unsuitable environment. Furthermore, in this study questionnaire statements of motives to exercise were categorised under themes of disease management, health maintenance, positive experiences, positive attitudes and knowledge about benefits, social contacts, self-expression and self-confidence, and suitable environment. The findings in the Rasinaho et al. (2006) study were in line with the previous papers discussed. Among those older adults with severely limited mobility 84 percent of the participants reported poor health as a barrier to exercise. Additionally, fear and negative experiences, lack of company and an unsuitable environment were itemized as common barriers among those with severely limited mobility.

TABLE 4. Barriers and motives to exercise as categorized by Rasinaho et al. (2006).

Barriers to exercise	**Motives to exercise**
Poor health	Disease management
Fear and negative experiences	Health maintenance
Lack of knowledge	Positive experiences
Lack of time and interest	Positive attitudes and knowledge about benefits
Lack of company	Social contacts
Unsuitable environment	Suitable environment
	Self-expression and self-confidence

Franco and colleagues (2015) have conducted a systematic review and thematic synthesis of qualitative literature (132 studies, n=5987) concerning the perceptions of older people on physical activity participation. In the synthesis of the studies six major themes on perceived barriers and facilitators of physical activity were identified: social influences, physical limitations, competing priorities, access difficulties, personal benefits of physical activity, and motivation and beliefs (Franco et al., 2015). The major themes and subthemes identified in the synthesis are compiled in Table 5.

TABLE 5. Perspectives of older people on physical activity participation. A synthesis of qualitative literature on barriers and facilitators (Franco et al., 2015)

Main theme	**Subthemes**
Social influences	Valuing interaction with peers
	Social awkwardness
	Encouragement from others
	Dependence on professional instruction
Physical limitations	Pain or discomfort
	Concerns about falling
	Comorbidities
Competing priorities	
Access difficulties	Environmental barriers
	Affordability
Personal benefits of exercise	Strength, balance and flexibility
	Self-confidence
	Independence
	Improved health and mental well-being
Motivation and beliefs	Apathy
	Irrelevance and inefficacy
	Maintaining habits

3 COMMUNITY-BASED REHABILITATION

The aim of this section is to remark the underlying model and recommendations for community-based rehabilitation by the World Health Organization, and to affiliate different concepts relating to home-based rehabilitation as a constituent of community-based rehabilitation. Furthermore, the chapter attempts to display the ProPA -intervention as a component of a larger global trajectory of sustaining function among people with disabilities. This greater perspective may moreover facilitate exploring and understanding the context in which the participants of this study view their experiences of rehabilitation, functioning and physical activity.

3.1 The participation model of International Classification of Functioning (ICF)

For some time, the wider global focus on healthcare and rehabilitation has been shifting from disability to health and functioning which is seen in the naming and the perspective of WHO's (2001) International Classification of Functioning (ICF) (WHO, 2002). The volume recognizes that decline in health, and therefore an experience of some form of disability, is experienced by every human being (WHO, 2002). Thus, the focus on services is changing into improving the functional capacity and performance of an individual by transforming aspects of both social and physical environment, and at the same time the care for chronic conditions has undergone a shift from hospital-based acute care to community-based long-term services (WHO, 2002). ICF framework is applicable to wide range of accounts from the level on individual service planning to a wider social level of policy development (WHO, 2002). For research uses, ICF offers classification and assessment tools for functioning, activity levels and overall levels of participation (WHO, 2002).

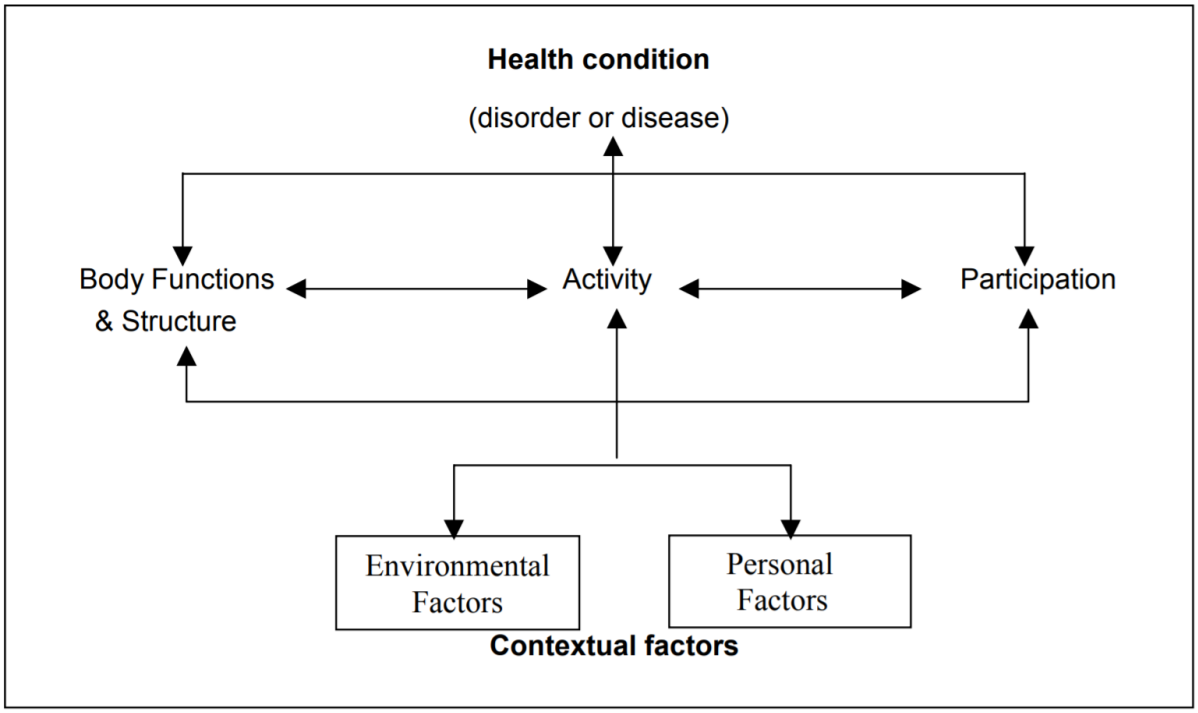

FIGURE 2. The ICF Participation Model. Interaction between the ICF components. (WHO, 2002).

In ICF, disability is seen through a biopsychosocial participation model (Figure 2) which aims to coherently integrate the biological, individual and social perspectives of health (WHO, 2002). The model displays disability and functioning as products of interactions between health conditions and contextual factors including environmental and personal factors (WHO, 2002). As seen in Table 6, disability and function are seen as negative and positive aspects of the same phenomena, as barriers and facilitators are seen as different sides of contextual factors (WHO, 2001).

TABLE 6. An overview of ICF components (WHO, 2001).

<table>
<tr><td></td><td colspan="2">Part 1: Functioning and Disability</td><td colspan="2">Part 2: Contextual Factors</td></tr>
<tr><td>Components</td><td>Body Functions and Structures</td><td>Activities and Participation</td><td>Environmental Factors</td><td>Personal Factors</td></tr>
<tr><td>Domains</td><td>Body functions
Body structures</td><td>Life areas (tasks, actions)</td><td>External influences on functioning and disability</td><td>Internal influences on functioning and disability</td></tr>
<tr><td>Constructs</td><td>Change in body functions (physiological)

Change in body structures (anatomical)</td><td>Capacity
Executing tasks in a standard environment

Performance
Executing tasks in the current environment</td><td>Facilitating or hindering impact of features of the physical, social, and attitudinal world</td><td>Impact of attributes of the person</td></tr>
<tr><td rowspan="2">Positive aspect</td><td>Functional and structural integrity</td><td>Activities
Participation</td><td rowspan="2">Facilitators</td><td rowspan="2">not applicable</td></tr>
<tr><td colspan="2">Functioning</td></tr>
<tr><td rowspan="2">Negative aspect</td><td>Impairment</td><td>Activity limitation
Participation restriction</td><td rowspan="2">Barriers / hindrances</td><td rowspan="2">not applicable</td></tr>
<tr><td colspan="2">Disability</td></tr>
</table>

3.2 WHO Community-based rehabilitation guidelines

Community-based rehabilitation entail services provided in a home, school, or workplace of an individual (WHO, 2017). Community-based complex individually tailored interventions to preserve and improve physical function and independence in older people have been shown to be effective in reducing the risk of falls, not living at home, nursing-home and hospital admissions, and improving physical function (Beswick et al., 2008).

Convention on the Rights of Persons with Disabilities (UN, 2006) impose that effective and appropriate measures should be taken to enable maximum independence, abilities, inclusion, and participation in all life domains. Rehabilitation services are required to begin at the earliest possible stage, to support participation and inclusion in the community, and to be available as close as possible to the own community of an individual (UN, 2006). The World Health Organization (2017) has published *"Rehabilitation in health systems"* to propose evidence-based recommendations and statements for good practice to support enhancing high-quality rehabilitation in health systems. WHO (2017) recommends that both hospital and community based rehabilitation settings be available and acknowledges that rehabilitation for many people is necessary well beyond hospital discharge, while other people require exclusively community based rehabilitation services.

According to WHO's recommendations (2017) rehabilitation should be integrated into health systems and integration between all different levels of healthcare should occur. This calls for consideration of the capacity, distribution, skills, and competence of the rehabilitation personnel, and further advancing understanding of the principles of rehabilitation in various contexts among other health professionals (WHO, 2017). In these recommendations it is emphasized that it is both beneficial to the person needing rehabilitation, and confers financials advantages, to provide timely hospital based acute care with appropriate referral to services in the community after hospital discharge.

3.3 Home-based rehabilitation of older adults

As discussed earlier, global policy frameworks increasingly search and recommend individualized rehabilitation services that are available close to the clients' own communities. A broad range of restorative and supportive home- and community-based services (HCBS) for older adults are frequently referred to as home care (Newquist, Deliema, & Wilber, 2015). In some countries, like Autralia and the USA, service interventions aiming to maximize the independence of older people, are referred to as "restorative care" (Cochrane et al., 2010). In other countries, like the UK and Norway, these goal-oriented, person-centered, holistic and often multidisciplinary service interventions aiming to promote the independency of older people, who prefer to live in their own homes despite frailty, are referred to with a term of homecare re-ablement or reablement (Aspinal, Glasby, Rostgaard, Tuntland, & Westendorp,

2016; Legg, Gladman, Drummond, & Davidson, 2016). Despite the term used, these restorative services are a form of medical services supplied in a home setting and an important component in conjoining the medical, social and individual needs of older people with disabilities (Newquist et al., 2015). The key elements of these services contain the time-limited nature of the services including restorative or self-care aspects aiming to reduce the clinical need for acute care or hospital admission to long term care (Mann et al., 2016). Thus, the focus of the services is to support older people to relearn skills needed to regain confidence in everyday activities that matter to each individual (Tuntland et al., 2016).

Stolee and his research group (2012) in their systematic review have summarised the existing research to compare the outcomes of home-based rehabilitation to inpatient services of older clients with musculoskeletal disorders. Whereas there are advantages associated with inpatient rehabilitation, older people in hospital care have an increased risk for complications that can lead to irreparable functional deterioration (Stolee et al., 2012). The results of the review support that home-based rehabilitation has equal or higher gains than impatient care in function, cognition, and quality of life and moreover rehabilitation settings were more preferred and generated higher satisfaction (Stolee et al., 2012).

Although multiple studies have considered the determinants of physical activity among ageing people as well as home-based rehabilitation programs and their benefits for older adults, there is clearly an existing research gap concerning the participants' own perceptions on rehabilitation and the factors hindering or facilitating the rehabilitation process. Orpen and Harris (2010) have studied patient's (age 53 and older) perceptions of preoperative home-based interventions prior to hip replacement and found aiding equipment, timely visits, competence of the therapist, home-environment planning and social support were considered important by the participants. Robins and colleagues (2016) have researched perceptions of older adults on participation in group- and home-based falls prevention exercise describing the reasons for beginning, continuing, and discontinuing exercise programs as well as benefits and barriers of participation. In the home-based programs improvement in health was perceived as the main benefit. Moreover, emotional benefits like increase in confidence or better mood were reported. Themes representing barriers were identified as physical health, emotional, and environmental barriers (Robins et al., 2016). None of the studies mentioned have addressed the perceptions of older adults with musculoskeletal injuries on their home-based rehabilitation experiences and perceived barriers and facilitators on physical activity tasks related to rehabilitation. This Master's thesis study aims to bring light to this research

gap. As the proportion of ageing people grow, home-based rehabilitation programs aiming to maintain mobility and function are bound to increase. Deeper knowledge of the participants' experiences is needed when planning more effective and individualized rehabilitation programs.

3.4 Promotion of Physical Activity (ProPA) home-based rehabilitation intervention

The Promotion of physical activity in older people recovering from lower extremity medical event or condition – project (from here on referred to as Promotion of Physical Activity- or ProPA -project (Turunen, 2014) was a two-phase study including

1. an observational phase in which the participants' habitual level of physical activity (amount, duration, and intensity) was monitored during inpatient rehabilitation period, immediately after discharge from hospital and three to six months after returning home, and
2. a group single-blinded randomized controlled trial (RCT) with two groups (ProPA – home-based intervention and Standard Care control) with the aim to investigate the effects of a multicomponent home-based physical activity promotion program that includes goal-directed physical activity promotion.

This Master's thesis study concentrates on the perceptions of some participants, who have undergone the home-based Promotion of Physical Activity intervention. The participants of the ProPA -intervention were community-dwelling people aged 60 and over who were admitted to a health center hospital in Jyväskylä, Finland, and were recouping after an orthopedic surgery of lower extremity (e.g. hip fracture, joint replacement) or another musculoskeletal condition in lower extremity (e.g. fall, aggravated arthritis) (Turunen et al., 2017). Exclusion criteria for the research project entailed living in an institution or being confined to bed for the duration of the hospital admission, suffering from severe memory problems, alcoholism, or unstable cardiovascular, pulmonary or progressive neurological disease (Turunen et al., 2017). The participants were recruited while their stay at the hospital and they were given an opportunity familiarize with the project information and to discuss with the project researcher before they signed a consent (Turunen et al. 2017). A summary of

the ProPa -intervention program is described in Table 7. Turunen and colleagues (2017), in their study protocol, have described the flow, content and aims of each encounter (Table 8).

TABLE 7. Description of the Promotion of Physical Activity intervention (Turunen et al., 2017; Turunen et al., 2020.).

Promotion of Physical Activity (ProPA)	
Aim	To promote physical activity and restore mobility among community dwelling people aged 60 years and older who have recently been discharged from hospital after a musculoskeletal injury or disorder. To examine whether an individual home-based rehabilitation program has positive effects on PA and recovery of mobility after hospital discharge in this group of older people.
Staff	Coordinated and delivered by a physiotherapist
Timespan	6 months, starting promptly after the discharge from the hospital
Schedule	7 home visits and 3 phone calls over a 6-month period - The home visits targeted for weeks 1, 2, 3, 4, 8 12 and 20 - Booster phone calls targeted for weeks 6, 10 and 16
Methods	Physical activity counseling - Goal Attainment Scaling (GAS) applied to set one or more PA-related goals - Individualized goal setting and goal updating based on the SMART principle (specific, measurable, achievable, realistic and time-based) - Targeted physical activity counselling with a tailored PA plan 3 months into the intervention - Motivational interviewing to help participants to enhance motivation for adopting an active lifestyle, overcome barriers and detect sedentary behavior patterns - Problem-solving method to address perceived obstacles to PA. - Advice to increase pain-management skills - Written information on helping aids and equipment - Written information on the supervised PA courses and exercise facilities offered by the municipality Home exercises - An individual home exercise program (strength, balance, functional training) - Instructions to perform the home exercises 3 times a week - The strengthening exercises for lower limb muscles, balance training, and walking exercises upgraded 4 to 5 times to ensure optimal challenge level Additional support - Frail participants receive support from volunteers for activities outside of home.
Evaluation	Goal Attainment Scaling approach (GAS) during the intervention Exercise diary kept by the participants RCT with standard care control group (multiple outcome measures)

TABLE 8. Flow and content of ProPA -intervention (Turunen et al., 2017.)

	Aim	Intervention content	Method
1. Home visit (week 1)	Introduction to the rehabilitation program, duration, GAS method and aims of the study	Current health status, chronic diseases, falls, living environment and use of a walking aid are evaluated. Goal setting is initiated	Interview, information on paper form is given on helping aids, hip pants, shoes and ancillary equipment
2. Home visit (week 2)	Muscle strength program	Individual exercise program to be implemented according to the OTAGO protocol (strength, balance, functional training)	Exercise training, counseling
3. Home visit (week 3)	Functional exercise program (e.g. walking, climbing stairs). Goals of rehabilitation are assessed to fit the participant's current situation	Individual exercise program to enhance functional capacity and independent ADL functions. Advice for non-medical solutions to increase pain-management skills	Exercise training, interview, counseling
4. Home visit (week 4)	Balance program with progressive balance movements on an individual level (with help of ancillary equipment if needed)	Individual exercise program to increase and maintain balance and agility	Exercise training, goal updating, counseling
1. Call (week 6)	Encouragement to pursue goals and information given if needed	Evaluation of current situation, progress with the training program and their health status	Counseling goal updating
5. Home visit (week 8)	Functional training and progression on each program. Light resistance band training.	Training program is evaluated to fit the participant's current situation.	Exercise training, interview, goal setting
2. Call (week 10)	Encouragement to pursue goals and information given if needed	Participants are asked about their current situation, progress with the training program and their health status	Counseling
6. Home visit (week 12)	Possibility to train outside of the participants home, e.g., communal gym, swimming pool, elderly exercise group or home-based medium resistance band training	Physical activity counselling, goal setting	Exercise training, counseling, motivational interview to discover new training possibilities
3. Call (week 16)	Encouragement to pursue goals and information given if needed	Evaluation of current situation, progress with the training program and their health status	Counseling
7. Home visit (week 20)	Evaluation of rehabilitation period and plan for future	The success of the goals set beforehand are appraised and new goals set for the future. Evaluation of the physical activity plan. Motivation to continue physically active lifestyle	Counseling

In the ProPA -intervention (Turunen et al., 2017) motivational interviewing was used to explore the personally meaningful motivators for a more active lifestyle, to discover barriers to physical activity and ways to overcome them, and to notice patterns of sedentary behavior. The topics covered with the participants included the levels of present and previous physical activity, interest in returning to previous activities or beginning new ones, and willingness to receive guidance and strategies to be active in everyday context (Turunen et al., 2017). Yet, the topics described are of interest in this Master's thesis study.

The results in the study of Turunen and colleagues (2020) show that the ProPA home-based counseling and rehabilitation program did not enhance physical activity or mobility in the intervention group compared to the standard care control group. Nevertheless, perceived difficulties in managing stairs were reduced compared to the control group (Turunen et al., 2020). The researchers discuss the possibility that vulnerable older people with combined health issues and a recent discharge from hospital would benefit from an extended and more frequently monitored intervention to improve physical activity and mobility (Turunen et al.,

2020). Furthermore, Turunen and colleagues (2020) discuss that the high fear of falling reported by participants living alone and unable to go outdoors needs further attention. Since the inability to go outdoors has a potential to decrease physical activity and physical activity interventions enhancing social support are recommended, the ProPA -project aimed to recruit volunteers to promote the outdoors activities of older adults but major challenges were discovered in the recruitment and matching the volunteers with the participants (Turunen et al., 2020).

4 PURPOSE OF THE STUDY

The purpose of this study is to qualitatively explore the perceptions of the participants of ProPA –project on the rehabilitation program and their own rehabilitative potential in the situation. The aim is to investigate the barriers and facilitators the participants have experienced towards physical activity and their home-based rehabilitation tasks. The study attempts to authentically bring the voice of the participants forth and inductively shed light on the determinants affecting the benefit of rehabilitation to further improve the future restorative rehabilitation interventions for ageing people.

This study aims to build the body of knowledge on the factors that explain why some people benefit less from home-based rehabilitation, and on the research gap concerning the perceptions of older adults with musculoskeletal injuries on barriers and enablers on participation in physical activity oriented home-based rehabilitation.

5 METHODS

5.1 The role of the researcher

In qualitative research the interpretations made are always shaped by the researchers underlying ontological and epistemological positions as well as wider ethical, personal, intellectual, and social commitments (Willig, 2014). By articulating our own philosophical assumptions, we acknowledge that they affect our scientific decisions, the questions we ask and answer (Hughes, 2018). In this thesis study it has from the beginning of the process been apprehended that the background and education of the researcher has a major impact both in data collection and interpretation. The ProPA -program needed someone with experience in clinical interviewing to explore the experiences of some of the older adults enrolled in the intervention. The professional background of the researcher is in third wave cognitive behavioral psychotherapy and behavior analysis with a philosophical perspective of functional contextualism which is a form of contextualism.

The perspective on truth in contextualism is pragmatic, looking at "what works" (Hayes, 1993). In pragmatism our understanding of the world is seen to be limited to our interpretations of our experiences but at the same time the nature of the world places constrains on those experiences (Morgan, 2014). Thus, looking from a functional contextual perspective the ontological and epistemological positions to science are close and overlapping to a constructivist view. In constructivism, reality is not seen to be "true" in an absolute way but interpreted and construed in relation to our experiences and interactions in our different contexts (Hughes, 2018, p. 27). Furthermore, a functional contextualist admits that there is no escape from the effects of the personal history of an individual and that no interpretation is final, but knowledge can be shared and workable, and guide the actions of other researchers (Hayes, 1994). The truth criterion of contextualism is "act in context", and functional contextualism focuses on the function that a thought, feeling or behavior has for a person in a certain context (Hughes, 2018, p. 36).

In constructivism, researcher is seen as an active participant in acquiring and justifying knowledge as findings are unfolded and created in interaction with the informants (Hughes, 2018, p. 28). The idea of having a clinically experienced person interviewing the older adults of ProPA -project was a pragmatic one. The presumption was that having someone with

experience on clinical interaction would be workable, as in this would benefit the data collection and more qualified data could be created together with the interviewees. Albeit the semi-structured interviews were administered in a careful way with the researcher abstaining from bringing any stances in the interaction, the participants were encouraged to take time on contemplating on their perspectives on the phenomena studied.

The role and the philosophical underpinnings of the researcher became imminent in the data analysis phase of the study. The approach used, was interpretative phenomenological analysis (IPA; Smith, 1996) which is founded in phenomenology and was viewed as compatible with contextual and constructivist views. In IPA, the research process is viewed as dynamic acknowledging that as the researcher attempts to get close to the participants' perspective, researcher's own conceptions are required in order to interpret those perspectives (Smith et al., 1999).

5.2 Participants

The participants for the thesis study were chosen by the research team workers of the ProPA -project. The participants chosen had scored low in the base-line assessment on Short Physical Performance Battery, SPPB (Guralnik et al.,1994) which was used to quantitatively measure the effectiveness of the rehabilitation. According to Guralnik et al. (1994) low base-line scores on the test can be associated with an increase in disability frequency in daily living activities and disabilities in mobility. The risk of disability at four years for people with lowest scores (0-6) in the SPPB test is 4,2 to 4,9 times larger than for those who score high (10-12). With intermediate scores (7-9) the risk is still 1,6-1,8 times larger than with high performance scores on the test. Furthermore, Pavasini and collegues (2016) in their systematic review and meta-analysis (n = 16,534) found a high association between poor performance in SPPB and an increased risk of all-cause mortality. Accordingly, in the ProMo -project 2008-2011 (Sipilä, & al. 2011; Edgren, & al., 2013) the results suggested that clients with better base-line performance tend to better benefit from rehabilitation promoting physical activity.

The SPPB baseline scoring range with the participants of this study was 1-6 (Table 10) which is considered low performance scores according to Guralnik et al. (1994). Intensity sampling methods (Creswell, 2012) were used in a way that the project-workers identified cases of

interest who were information-rich and who were able to verbally bring light to the phenomenon of interest. The demographics of the participants are presented in Table 9.

TABLE 9**.** The demographics of the participants

ID	age	gender	family/ profession	reason for participation in ProPA-project	Self reported health issues
P1	80	F	widow children/ factory work	2 operations on hip fracture (after a fall)	Osteoporosis Prolapsed intervertebral disc– back pains Past fractured ankle Diabetes
P2	84	F	divorced children/ office work	joint replacement (knee)	Muscle arthritis Fibromyalgia Joint arthritis Fratured humerus after a fall Dizziness
P3	85	M	divorced relationship children/ entrerpreneur, health related work	joint replacement (hip, after a fall)	Inguinal hernia Cardiac hypofunction (arythmia, swelling of legs) Diabetes
P4	92	F	divorced children/ health related work	joint replacement (knee)	Joint replacements in both hips and knees Spinal cord compression Joint arthritis
P5	80	F	divorced children/ office work	hip revisioplastia	Cardiac hypofunction Cardiac pacemaker Hypothyroidism Renal failure Adrenal insufficiency Arterial hypertension Diabetes Asthma Arthritis Blood antibody deficiency Dizziness Past stroke Bad eye sight

TABLE 10. The SPPB (Guralnik et al.,1994) scoring of participants

ID	SPPB baseline	SPPB 3 months	SPPB 6 months
P1	1	1	2
P2	3	4	3
P3	4	5	6
P4	5	8	9
P5	6	8	11

In the ProPA -study (Turunen et al., 2017) fear of falling was assessed with Fall Efficacy Scale (FES-I) by Yardley and colleagues (2015) in which the total score ranges between 16

and 64 with higher scores indicating higher concerns over falling. Although the data was not quantitatively analyzed in this thesis study the FES-I scores of the participants (Table 11) provide additional perspective to the interpretation of the qualitative interview data.

TABLE 11. The participants' Fear of falling assessed with FES-I (Yardley et al., 2015).

ID	SPPB baseline	SPPB 3 months	SPPB 6 months
P1	53	53	42
P2	33	31	44
P3	50	43	48
P4	49	36	31
P5	21	20	18

5.3 Ethics

The ProPA -research study was approved by the Ethics Committee of the Central Finland Health Care District on September 4th, 2014 (Dnro 3 U/2014). An additional evaluation on ethicalness of this Masters's thesis study was permitted to the ethics committee upon application of approval on December 28th, 2016 and was approved in January 2017.

The participants were given written information about the study and the project worker informed them verbally. One month was given for the participants to contemplate on their participation after which the informed consent form was reviewed with a project researcher. Subsequently, the participants were given another week to decide on participation and sign the informed consent.

The participants were informed that they can cancel their participation in the study at any time of the process. Participation in the study or discontinuing participation did not have any hindrances on other health care, rehabilitation, or social security procedures of the participants. Moreover, the participants were informed that potentially participation to the study would not benefit them. Notwithstanding, the participants had an opportunity to express their life situation and experiences to an active listener, which can potentially have an empowering impact.

Particular attention was brought to the safety of the participants. People suffering from memory problems or severe problems in everyday tasks were excluded in the recruitment process. Participants were given an opportunity to take breaks during the interviews. The confidentiality of the participants was considered at every stage of the study.

5.4 Data collection and procedures

The data was collected as semi-structured face-to-face interviews from 5 participants of ProPA -project. The interviews were conducted after the project's 6-month follow-up in homes of the participants.

The themes of the semi-structured interviews were the following: perceptions of the current life situation, perceptions and experiences of rehabilitation, perceptions of the participant's own rehabilitation path, physical activity during life, and perceptions of the relationship between physical activity and health. A list of 35 supporting questions concerning the interview themes was created and used in an individual semi-structured matter.

The interviews were afterwards listened to after which data was carefully literally transcribed (see Kowal & O'Connell, 2014). 5 hours and 58 minutes of interviews was transcribed into 125 pages (font 11, spacing 1,5) of raw data (Table 12) which was uploaded to Atlas.ti software for further data analysis. During the data analysis process the audio data was visited again which is recommended to verify interpretation of the transcripts (Kowal & O'Connell, 2014).

TABLE 12. Description of interview data.

ID	Interview date	Interview length	Transcribed pages (font 11, spacing 1,5)
P1	23.2.2017	01:07:40	20
P2	23.2.2017	01:07:31	26
P3	16.3.2017	01:42:07	29
P4	15.5.2017	00:56:44	26
P5	1.11.2017	01:04:16	24

5.5 Data analysis

"Qualitative induction is the basis of all scientific procedures that find, in collected data, only new versions of what is already known" (Reichertz, 2014).

This Master's Thesis study uses interpretative phenomenological analysis (IPA; Smith, 1996) as an approach to qualitative research. IPA has distinctively been developed to conduct qualitative research in psychology and has particularly been used in the field of health psychology which is moving towards the recognition of the importance of understanding and interpreting individuals' own experiences as a process of construing the nature of disabilities (Brocki & Wearden, 2006). The intent of the IPA research methodology is to examine in detail the participant's perceptions of the phenomenon under investigation using researcher's own conceptions as a tool to gain access to interpretations of those perceptions (Smith, Jarman, & Osborn, 1999). Thus, in IPA approach personal lived experiences are examined in detail to make sense and to try to understand the world from the point of view of the participants (Shinebourne, 2011).

Albeit the data consisted of interviews of five different participants, it was approached ideographically, beginning with one case at a time and slowly advancing towards broader categorizations as Smith and colleagues (1999) suggest. The analysis began with familiarizing with the data by listening through the audios of the interviews. Further analysis was conducted with the Atlas.ti software by reading and re-reading the transcripts of each interview one at a time, writing notes about insights and coding the preliminary themes emerging from the data. Through an iterative process, the emerging themes were looked over again in connection with the responses in previous transcripts, and clustered together with existing themes and being open to new themes emerging. This same iterative process was done with each interview with using the themes from the previous interviews and adding into them as this approach is recommended by Smith and colleagues (1999) with studies that employ a small sample size.

After the initial master themes and subthemes were inductively generated from the data, they were compared and looked over again related to the existing research literature. Commonalities and differences were searched for. While many of the themes were recurrent in the narratives of the participants, there were distinct features rising from each interview. Therefore, to highlight the uniqueness and discrepancies of different participants, a

categorization to different types was made albeit the emphasis was in the thematic analysis of the data.

Some of the master themes that were in line with existing literature were re-named while others were kept. The function of the current study was taken into account in justifying some of the master themes like “rehabilitation related factors”. During the analysis phase and looking into existing literature and guidelines on rehabilitation it became evident that the themes emerging from the data reflected the phenomena perceived globally in the pursuit of shifting from disability focused perspective towards active participation. This observation lead to an attempt view the results through the lense of the ICF participation model (WHO, 2001). Thus, both inductive and deductive approaches were used in the data analysis. Reichertz (2014) states that inductively derived new research data is to be continuously re-examined to ascertain if it is in line with existing research findings or theories.

“Abduction begins when the human actor is taken by surprise, and it ends when the surprise is replaced by understanding and the ability to make predictions” (Reichertz, 2014).

5.6 Trustworthiness

Clark’s (2003) qualitative research review guidelines in RATS checklist were applied in the research design to ensure the relevance of study question, appropriateness of qualitative method, transparency of procedures, and soundness of interpretive approach. The purpose and aims of this study are explicitly stated and are justified by exploring the existing research and indicating a distinct research gap concerning the perceptions of older adults with musculoskeletal injuries on their home-based rehabilitation experiences. Thus, the study questions have relevance to public health and health policies which is described through existing literature and contemporary policies. The qualitative semi-structured interviews are considered appropriate study methods when exploring perceptions and experiences of participants. The study process, including sampling, recruitment of participants, data collection, the role of researcher, and ethics, is described in detail to ensure transparency of the procedures. The soundness of interpretive approach is pursued by justifying the appropriateness of IPA approach in the field of health psychology and describing comprehensively the steps of data analysis. A comprehensive account is given on the

procedures of inductively deriving themes from data and then deductively refining them by comparison to existing literature on physical activity of older people. The strengths and limitations of this study are explicitly discussed in the conclusions chapter of the study as well as explored throughout the methods chapter.

Creswell and Miller's (2000) two-dimensional framework, identifying the lens of researcher and the paradigm and worldview assumptions, provides a rationale to choose the validity procedures that best establish the credibility of the study. Within the constructivist paradigm and as a lens of researcher, disconfirming evidence is considered to improve validity of the research (Creswell & Miller, 2000). In the procedure, after identifying the preliminary themes, the data is searched through for evidence that corroborates or contradicts the initial categorization (Creswell & Miller, 2000). In this study, the lens of disconfirming evidence was used in the interpretation of the data as both transcriptions and audio recordings of the data were searched through systematically to establish the final themes. Rodham, Fox and Doran (2015) present that listening to the audio recordings of the interviews has an essential role in contextualising the interpretations in the IPA approach.

Prolonged engagement in the field, from constructivist perspective, is considered to build validity through the lens of the study participants according to Creswell and Miller's (2000) two-dimensional framework. Repeated interviews, that could enhance trust of the participants and enable comparison of interview data over time (Creswell and Miller, 2000), were not conducted in this study. However, the semi-structured interviews were lengthy (between 56 and 102 minutes) and approached the phenomena of home-based rehabilitation and physical activity determinants from different perspectives with an aim of gaining a more credible account of the participants' perspectives.

With thick and rich description of the setting, the participants, and themes of the study, a researcher applies a constructivist perspective to build credibility through the lens of readers (Creswell and Miller, 2000). Detailed descriptions of the participants' similarities and differences as well as the themes and their overlapping are pursued in this study as an attempt to allow the reader to assess the applicability of the findings, as Creswell and Miller (2000) suggest. Furthermore, the quotes of the participants were presented both in the original language (Finnish) and as translations (English), to ensure authenticity of the extracts and opportunities for readers to check the origin of the interpretation.

Rodham, Fox and Doran (2015) argue that developing a curious stance towards the data and at the same time an active engagement in researcher reflexivity are key aspects in to ensuring analytical trustworthiness when using the IPA approach. Creswell and Miller (2000) define researcher reflexivity as a process in which researchers disclose personal assumptions, beliefs, values, and biases that may shape the interpretation process. Reflexivity is given particular attention in this study by acknowledging and self-disclosing the professional background and philosophical perspectives of the researcher and describing the assumptions in the interpretation process.

A limitation in the validity procedures of this study is that member checking was not implemented since the interviews were administered more than 3 years before reporting the results and the participants being of old age already at the time of the interviews. Furthermore, method and data triangulation by comparing interview data to the questionnaires gathered in the ProPA -research project, as well as researcher triangulation in the interpretation process through cross-coding could have added to the trustworthiness of this study.

6 RESULTS

The first chapter of this section aims to examine, describe, and interpret perceptions of the participants of ProPA -program on rehabilitation, home-based rehabilitation and the aspects of rehabilitation viewed as most meaningful or beneficial. The second chapter focuses on the barriers and facilitators of physical activity oriented rehabilitation perceived by the participants.

6.1 Perceptions on rehabilitation and physical activity

The participants were asked what the terms "rehabilitation" and "home-based rehabilitation" meant to them. The answers suggested that the participants did not perceive much difference between the two terms. The most used expression by the participants to describe rehabilitation and home-based rehabilitation was "movement" when talking about the exercise tasks. In every interview rehabilitation was comprehended mostly through the training movements taught by a professional, but walking was also seen as a part of rehabilitation. Movement was regarded as rehabilitation as well as the goal of rehabilitation. The rehabilitation tasks were viewed as a way to maintain mobility and muscle strength.

Tekkee niitä liikkeitä! Mitä on neuvottu! ***To do the movements (exercises) as instructed! [P1:12]***

Ne on justiin näitä liikkeitä... kotikuntoutuksessa... ja kävelyä. ***It's these movements… in home-based rehabilitation… and walking. [P1:45]***

Mä teen niitä liikkeitä. Niitähän pitää tehä vaikka kuinka! Mä äsken, kun mä istuin tossa ni mä sain venytettyä nuo jalat. Ihan mää, ihan yksinkertasia liikkeitä, mutta tässäkin mä oon tehny näitä… ***I carry out the movements. You should do a lot of that! Just sitting there a while a go, I stretched my legs. They are simple movements. I've performed them right here. [P1:79]***

No, eikös se oo semmosta, että koittaa pitää lihaksensa ja ja liikkumisensa se-semmosessa kunnossa, että pystyy liikkumaan, mitä pitää. ***Doesn't it mean that you try to keep your muscles and mobility in such a shape that you are able to move and do what you have to? [P2:9]***

No, se on vaa semmosta, että hankkii niitä laitteita joitakin kotiin ja käyttää niitä ja tai sitten ihan jumppaa jonkun kuminauhan kanssa tai tekee liikkeitä, mitä on neuvottu ja. ***Well, it means that you acquire some equipment and use it at home or do some exercises with a rubber band or carry on the instructed movements. [P2:12]***

No sillon ku mul oli tuota tää oli sillon kävi tämä tämä jumppari kävi kotona… …mut sitten on ne ohjeet tossa ne on semmosta niiku tuolijumppaa sanotaan, että jalkojen venytystä ja selän ja oikomista

ja taivuttelemista ja ja käsien olkapäitten jumppautta ja muuta, se on kyllä ihan semmosta hyvin rauhallisesti. ***Well, when this exercise person visited me at home… but also those instructions for chair exercises, stretching legs and bending the back, and exercising arms and shoulders calmly. [P4:15]***

Mulle tulee aina mieleen vaa nuo kaikki kun siitä kun minä ohjaa- nii mä sain niitä miten niillä tehään kaikkia liikkeitä ja muita ja ja just niitä lihaksia ja semmosia, miten miten ne tuntuu kyllä siinä kun useemman kerran tekee niitä. ***What comes in mind is instructing all the movements, and the muscles and all. Once you do that several times, you can really feel it. [P5:13]***

Participant 3 underlined the role of mental support in a successful rehabilitation process. Although he considered the movements as being the core element of rehabilitation, he perceived the psychological aspects of having another person aiding in the process as another important aspect. Participant 5 viewed the role of advice and assistance in rehabilitation particularly important for people with less exercise experience.

No tietenkin jos sanotaan, et siellä hän hän hän opetti näitä mitä liikkeitä mitä pitää harjotella…(tauko) ja ja kyl se niinku antaa sitten jonkin verran tämmöstä henkistä tukea, että et kun sitä tekee, nii siinä voi sit jotain tapahtua, että kuntoutusta…… et sit mä ajattelin vaa et tämähän ois voinu olla jossakin vihkosessa tai oppaassa… Että nää liikkeet, että et vois harjotella en mä tiiä mikä siinä ois semmonen, mut sit tietenkin se psyykkinen puolihan siinä on tärkeetä…Et joku käy katsomassa tai et nyt mennään näin ja se menee nyt oikein ja…Et et et kuules ukko niin tuo vasen jalka nyt vippaa tuonne ihan väärään suuntaan tai muuta jotain. ***Well, of course the fact that she taught these movements that are to be practiced…and giving a bit of some kind of mental support to ensure the rehabilitation… So I thought that the movements could have been in a booklet, but the psychological aspect is what is important… That someone comes and checks on you or instructs how to do it right like: "Hey old man, your left foot is pooching the wrong way." [P3:34]***

Mä oon kyllä itekin ollu kuntoutuksessa (nauraa). Et kyllä mä oon viihtyny et tuota (tauko) et se on monta kertaa on semmosen ihmisen, jol ei oo mitään liikunnallista kokemusta, nii siellä saavat hyviä vinkkejä ja apuja… Ja se on minun mielestä hirveen tärkeetä, että liikutaan.
I have been in rehabilitation. I have enjoyed it. Well, often times a person who has no experience in physical activity can get great tips and help… And I think physical activity is very important. [P5:7]

Hence, the ability to stay mobile and to take care of oneself and everyday tasks was regarded as a consequential benefit of rehabilitation.

Sehän on hirveen hyvä, kuntoutus! …Siinähän opetetaan toisia ihmisiä... minutkin melkein opetettaan kävelemään. ***Well, rehabilitation is very good! … It's about teaching people… Like they almost taught me how to walk. [P1:8]***

Joo, kyllä…No just sen takia, että pystyy, pysyy siinä kunnossa, että pystyy liikkumaan ja tekemään hommansa ja hoitamaan niinkun itsensä ja kaikki mitä siihen liittyy. ***Yes, exactly to stay in such a shape that one can take care of oneself and everything that goes with that. [P2:12]***

Although the maintenance of mobility was regarded as the major goal and benefit of rehabilitation, the participants emphasized different aspects of their own home-based rehabilitation process as being meaningful and beneficial to them. Building muscle strength to be able to stay mobile or to decrease falls was mentioned by participants 4 and 5.

No se on ihan A ja O minusta… Kyl sitä nii, sen huomaa ihan, että jos on pitkiä taukojaki nii nii tuota mut mul on kyllä semmoset kotijumppaohjeet täällä, että kyllä mä yleensä venyttelen ja vähä pikkusen jumppaan vähän laiskasti kyllä täytyy sanoa joskus väsyttää, mutta mut kuitenki et ylläpitää sitä lihaskuntoa. ***Well, it is very important… If there are long breaks, you can notice the difference. I do have instructions for home exercise, so I do stretch and exercise, but sometimes a bit lazily and I have to admit that I get tired. But it's still to maintain my general condition. [P4:9]***

No lähinnä nyt sitten kun todettiin nää kiristyneet lihakset ja sain oikeet liikkeet niihin nii se on kyllä vaikuttanu paljon… Et kyl siellä hyviä ohjeita tuli ihan, vaikka mä nyt ite siellä kuntosalillakin soudan ja kaikkee, että. ***Well, mainly it was for these tight muscles and I received the right movements for that. It has made a difference… So, I did get good instructions, even though I row and everything in the gym, too. [P5:38]***

No nuo on kyllä hyviä nuo justii niinkun jalkalihaksia vahvistavat… Että sitä nii helposti kaatuu sitte ja sillon ku mä vedin sitä vertaisryhmää ikääntyville, nii kyllä piti komentaa, että nosta jalkaa…Kun hyvä, ettei tavallisella lattialla kaadu, kun ei jalka nouse, et se just että just jalkoja pitää niiku jumpata paljon ja vahvistaa niitä, sillon liikkuu ihan toisella tavalla. ***The ones that build up leg muscles are good… It's easy to fall down, so when I was leading the peer group for ageing people, I had to command them to lift their legs… because otherwise you can fall down even on a flat floor if you can't lift Your legs. So legs should be exercised and strengthened to be able to move. [P5:49]***

Enhancing and maintaining motivation to stay active was viewed as a valuable benefit of the home-based rehabilitation process by participants 3 and 5. Rehabilitation was seen to decrease the possibility to stay in bed which might lead to decline of physical condition. Participant 5 mentioned that getting support from the ProPA -program had led her to continue being physically active.

Kyllähän tommonen kuntous, kyl se tarpeellinen on ja niinkun yks yks asia on, jos ei niinkun jonkin näkösiä semmosia käyntiä et katsoo niin, mä sanon hyvin suuri vaara on se että enhän mä viiti ja tässä mä heittäydyn, mä nukun tässä sängyssä ja muuta et jään ja se kuntoutus itse tai kunto on ehkä parempi sana, niin niin se voi romahtaa. ***For sure rehabilitation like that is necessary. One thing is that if there were no visits, there is a danger that I would not bother, and I would stay in bed, and my physical state would just crumble down. [P3:68]***

No kyllä mä hirveen hyviä liikkeitä sain…Että ja just kun mä kävin siellä jälkitarkastuksessa nii se sano se lääkäri, että kun ei oo päässy liikkeelle niin paljon, et mä vasta nyt vein sauvatkin pois viime viikolla…Nii tuota nää lihakset reisilihakset ja pohkeet että ne oli tiukalla…Ja just tää L oli neuvonu niitä nii sitten mä rupesin jatkamaan enemmän. ***Well, I did get great exercises… so the doctor said, that it's because I haven't been able to move as much, that just last week I gave up the walking poles… So my leg muscles were tight… And once I got the advice, I started being more active. [P5:23]***

Merkityksellisintä?... Se että se tuli tehtyä sitten. Se oli jos laiskotti ja muuta, mutta kun ne tuli kotiin nii se oli pakko tehä (nauraa). ***Most meaningful? … That I did them. Even if I felt lazy, I had to complete them when I got home (laughs). [P4:30]***

Participant 1, in her interview, talked repeatedly about fears of falling and stressed that home-based rehabilitation had helped her build courage to walk and to be more active.

No, näitähän pitää päivittäin tehä niin paljon, ku viittii! Että ei sais olla, jäähä siihen. Ja mä oon nyt koittanu, ja musta tuntuu, että tuoki on kauheen hyvä, ku mä menen tämän väliä, niin tuota, mää en taikka piä tätä (rollaattoria), mutta mää piän tään kumminkii lähellä. Mutta mää kävelen sen. Että kyl mä silleen USKALLAN JO. ***Well, You should daily do these as much as You care to! You shouldn't just stay immobile. And I try. I think it's really good to just walk between these spaces. I don't use my walker but I keep it near. I walk and now I HAVE THE COURAGE to do so. [P1:99]***

Having a human contact was considered as a meaningful part of the rehabilitation process. Participant 3 underlined the social aspect throughout his interview as the most valuable part of the rehabilitation program. The discussions with the rehabilitation worker as being pleasant and supporting well-being.

No kyllä se kai ihan parast on vaa että tulee niiku ihan vaan et joku henkilö tulee käymään…Et on joku ihmiskontakti…Ja siinä sitten keskustellaan ja en mä osaa sanoa, enkä lähdekään arvostelemaan, onko ne keskustelut ollu nytten mut se et sitä on vaan nii se on jo, se on niiku ihan semmonen niiku suurin anti siinä. ***Well, for sure the best part is that a person comes to visit. That there is a human contact. And that there is conversation, and I won't judge the content of the conversations, because they are the greatest offering in it (rehabilitation). [P3:69]***

Hmm, no olihan tuon L:n kanssa tietysti kiva jutella, olis ollu hirveen mukava, kun ois, musta ois ollu sitten siihen tekemään niitä. ***Hmm, well it was nice to speak with the person. I wish I had it in me to carry them out. [P2:40]***

Kyllä mä tykkäsin niistä nuorista ja kyllähän niinku kuuluu mä oon kova puhumaan sit kun mä innostun, että se oli nii mielenterveyttä ja sillei… Että tutustuu uusiin ihmisiin ja kaikkiin. ***I lie those young people, and as you notice, I talk a lot when I get excited. So, it was good for mental health… To get to know new people and everything. [P5:22]***

Participant 5 noted that getting information and being able to ask someone helps with the uncertainty after an illness. She perceived it important to have medical aspects integrated in the rehabilitation process while building the program and activities individually.

Ja just tommosessa et ku sehän sairautta vähän aikaa sairastanu, nii sitten alkaa niinku kysymyksiä tulee ja miettimään, että siitä saa lääketieteellistä ja kaikkee apua. ***Excatly in moments like that, when there has been an illness and one starts to have questions and ponder over things. To be able to get medical and all kinds of support. [P5:11]***

Ja kyllä siinä hirveen hyvä, että siellä on sitten lääketieteellistä puoltaki sitte mutta just kaikkee liikuntaa mitä pystyy ja kunnon mukaan ja. ***And it is a tremendously good thing, that it takes into account the medical aspects, but all the physical activity according to the abilities and the condition of a person. [P5:12]***

Overall, the participants perceived the ProPA -intervention as beneficial in various ways. Furthermore, the participants appeared to greatly appreciate and were willing to engage in any rehabilitative and participation enhancing services they were offered. Some participants attended group rehabilitation or physical activity groups simultaneously with the home-based intervention while one of the participants had hired another rehabilitation worker to help her stay active after the ProPA -program.

6.2 Perceived barriers and facilitators of physical activity

The aim of this chapter is to describe the thematic categories of barriers and facilitators of physical activity and rehabilitation that arise from the data set. As described earlier, in the ICF model (WHO, 2001) disability and function are considered as negative and positive aspects of the same phenomena, while barriers and facilitators of physical activity are viewed as different perspectives of the same phenomena. This chapter attempts to first highlight the distinct features of each interview with a categorization of types of perspective that can have an effect in the benefit of rehabilitation aiming to enhance physical activity. However, the main emphasis in this chapter is to display and synthesize master themes and sub themes highlighting common factors affecting the studied phenomena.

While there where multiple similarities in the factors considered as barriers or facilitators in the interviews of different participants, each emphasized distinct factors. Albeit the sample size in this study was small, the participants could be typed differently according to their

perspectives and experiences relating to physical activity and the rehabilitative tasks (Table 13). Participant 1 stressed her comorbid illnesses, pain, and fears of falling as main barriers to her mobility. Similarly, participant 2 described pain and fear of falling being major hindrances but the distinct factors in her interview seemed to be loneliness, shame, and self-critique. Participant 3 mentioned repeatedly the need for psychological support in adjusting to a new life situation. He gave the impression that transition to old age was unexpected and surprising. Participant 4 was an active user of services offered by different instances. Despite her old age and multiple health problems she used taxi services to do her own shopping, to see family, and to join peer and other rehabilitative groups multiple times a week. Nevertheless, participant 5 had numerous health related mobility constraints, she refused to give up the active lifestyle she had led through her life. She narrated the need to stay active with the following quote: "I'm not going to live to be that old (laughs), so when I run out of energy, I will die."

TABLE 13. Participant types according to distinct features in relating to rehabilitation and PA

ID	**Participant's distinct approach to rehabilitation and physical activity**
P1	"But I have other pains, too!"
P2	"I'm a disappointment to myself and the project"
P3	"It's astonishing how old age affects my strength"
P4	"I just order a taxi there and back"
P5	"I`ll just take a pain killer and go. I need to get going every day!"

Seven master themes related to the determinants of physical activity and rehabilitation adherence were raised from the interview data. As seen in Table 14, the master themes included physiological, emotional, and learned factors, and factors related to social support, the physical environment, healthcare, and rehabilitation. Considering the focus of the study being home-based rehabilitation, subthemes concerning healthcare in general and rehabilitation more specifically were placed under separate master themes. The subthemes described more precisely the factors that hinder or facilitate participation in physical activity planned in the rehabilitation program.

TABLE 14. Master themes and subthemes on barriers and facilitators of rehabilitation with physical activity

Master themes	**Subthemes barriers**	**Subthemes facilitators**
Physiological	Previous and comorbid illnesses Pain Tiredness Impact of medication	Previous PA activity Medication
Emotional	Fears, insecurity, caution Shame, self-criticism Problems adjusting to new life situation Loneliness	Enjoyment Perceptions of efficacy Trust in professionals Hopefulness
Social support	Lack of peers with similar interest Limited support from professionals	Sufficient support from professionals Peer support Close relationships Individual tailoring of support
Learned	Benefits of being helpless or inactive Reverence for professional authority Managing independently	The benefits of physical activity Active lifestyle / healthy habits Gritty attitude / Managing
Physical environment	Recurrent hospital stays Services that reinforce staying home Monetary resources Lack of aid equipment Challenging immediate environment Weather	Own home Services that motivate PA Transportation Aid equipment Immediate environment supporting PA
Healthcare related	Limited access to health services Lack of information received Lack of self-determination and perceptions of not being heard*	
Rehabilitation related	The approach of rehabilitation personnel (timidness, too assertive) Limited visits from the personnel Flow and timing of the visits Difficulty of the instructed exercises Lack of co-operation and information transfer between professionals Vagueness of the goals Perceptions of not being heard*	The approach of rehabilitation personnel (assertive, warm, individualized) More visits from the personnel Flow and timing of the visits Advice on movements and posture Co-operation between professionals Clarity of goals Individual tailoring

* Perceptions of not being heard are placed within the themes of healthcare and rehabilitation related factors, but unfold likewise in the physiological and emotional themes.

6.2.1 Physiological factors

Physiological determinants of adhering to physical activity and rehabilitative tasks had a prominent role in the data set. Under the major theme of physical factors, the subthemes of previous and comorbid illnesses, pain, tiredness were identified as barriers. The effects of

medication were considered both as barriers and facilitators. Previous physical activity as a determinant for better mobility and physical condition was viewed as a facilitator.

The effects of previous and comorbid illnesses were most often mentioned as a complicating factor related to mobility, physical activity and adhering to the rehabilitation tasks. Every participant described having concurrent health problems. Comorbid and previous illnesses were mentioned in 36 quotations in the interviews and can be interpreted as the most prominent barrier to physical activity and rehabilitation adherence in this data set. Four of the five participants talked about additional health problems hindering the rehabilitation process and ability to be physically active, whereas one of the participants saw them more as an inevitable part of old age and didn't make associations between the rehabilitation tasks and other illnesses. Nevertheless, the multitude of health problems was heavily present in the interviews and was an imminent part of everyday life of the participants, even to the extent of filling up the calendar.

Noku sen oon huomannu, että se on pelkkää terveydenhoitoo. Hyppäät ja mulla allakka täys millo missäki pitää olla. ***Well, I have noticed, that everything is just healthcare. You jump around the place. And my calendar is full, I have to be here and there. [P5:4]***

Kyllähän sitä oli, mä kerran putosin sängystä, tästä meni ja sitten toi olkapää pois sijoiltaan, että tämmösiä kaikkia vaivoja on sitten ja minä sanoin, että kun mun, en oikein innostunut sit siitä kunnon kohottamisesta niin paljon, kun ois pitänyt, että, et kun hänel on toisia mummoja varmaan semmosia, jotka on ollu hyvässä kunnossa, sillon kun alotettiin nää fysioterapeuttiset jutut, niin varmaan ne on paremmin sitten siitä toipunu, mutta kun mulla oli niin paljon näitä vaivoja jo ennestään…Niin musta tuntuu et se oli paljon vaikeempaa mulle sitten kaikki, koska fibromyalgiasta vissiin nämä käsivarret on jo niin huonot, et ne ei nouse kädetkään ja… Ja selkä on kipee ja semmosta, näitä nivelrikkoja joka puolella….Se on vähän semmosta, niin, niin kun puuron juontia ja sitten se on se aina pitäs ruveta jotain liikkeitä tekemään. ***All kinds of, I once fell out of bed and dislocated my shoulder. So all kinds of maladies, and I told her when I was not into getting into shape as much as I should have, that she probably had other grannies, who are in a better shape when beginning this physiotherapy stuff, so they probably have recovered better. But I had so many ailments to begin with…So, I feel it's all much harder for me, because with fibromyalgia these arms are just so bad, I can't lift them… And my back aches and all, and I have arthrosis everywhere… It feels like drinking porridge when I'm supposed to start performing the movements. [P2:3]***

Nyt on tullu uus vaiva vielä, kun jotenkin ehkä huimaa, niin on ruvennut kaatuilemaan……Se tulee ihan yllättäen, että lähtee yhtäkkiä kaa- taaksepäin viemään…Joka kerta ja sitten vaan, no sisällä mä oon lähinnä vaan nyt oon lähinnä vaan sitten niinku pudonnu istualle niin mutta ulkona tuossa ihan portilla kaaduin, kun olin rollaattorin kanssa tulossa kaupasta, niin siinä murtui sitten tämän oikean käden olkaluu. ***Now I have a new ailment. I feel dizzy and I have started to fall… It's totally sudden, I just start falling backwards… Every time, well when I'm indoors I have mostly just fallen on my bottom. Yes, but when outdoors, right there at the gate I fell with my walker when returning from the store, and I broke this right humerus. [P2:66]***

Mulla on nimittäin alun perin myöskin vähän nivelreumaa ja muuta ollu, että se ensimmäisen lapsen syntymän jälkeen mulla todettiin sinne ja sitten olin hoidossakin vähän aikaa lääkärin hoidossa, mutta tuota se on ollu aina välillä nii rauhallinen mut joskus se on tietysti vähän ärhäkämpi ja vie kyllä kaikki tääää nivelten heikkous johtuu vähän siitäkin. ***I have had rheumatoid arthritis and other things. It was diagnosed after I had my first child and I have earlier received medical attention with that. But sometimes it is more serene, and then every now and then it gets vicious and takes a lot. The weakness of my joints is partly due to that. [P4:54]***

Particularly, participant 1 had experienced that the healthcare and rehabilitation professionals had failed to consider other health problems, apart from the latest operated fracture, in the planning of rehabilitation. She mentioned hindering effects on mobility and physical activity 11 times in her interview from which 7 times she expressed frustration over the experience that professionals only seemed to pay attention to rehabilitating her hip when she had other health issues that caused her pain, dizziness and in some instances completely prevented the physical tasks planned for her.

Mutta... mulla on semmonen juttu, että mulla on selkä muutenkin huono… Mulla on välilevyn pullistumat siellä ja...Mutta ne lähtee siitä, että mikä mulla tuo on tuo murtuma vaan! Aina! Lääkäritkin siitä. ***But… I have this thing that also my back is bad… I have slipped discs there and… But they always just focus on my fracture! Always! The doctors always on that, too. [P1:4]***

Mun selkä on muutenkin huono… Mä en ole siis... senhän mä sanoin silloin sille. Onhan tässä muutakin, mutta menee ne lähti siitä, tietenki ne lähti, mikä oli viimeks tapahtunu. Sillaihan nää hoietaan. ***Yet, my back is bad… I haven't… this is what I told her. That there are other maladies. But of course they just focused on the latest one. That's how they handle these. [P1:6]***

MUTTA KUN MUN SATTU MUUALLEKKI! Se ei sitä ymmärtäny, kun... Ne vaan sitä mun tätä murtuman... tätä.. ne niinku ajo takaa. ***BUT I HAVE OTHER PAINS, TOO! She didn't understand… They just focused on my fracture… That's what they went after. [P1:19]***

Pain as a barrier to physical activity was likewise mentioned by all the participants. Concurrently with the comorbid health issues, pain was the second most mentioned barrier to physical activity (18 quotes). At some instances pain was related to the musculoskeletal operations that were the intake criteria for ProPA -program but more often pain was related to the multiple comorbid health issues the participants reported. Regardless of the origin, pain had an immense effect on the everyday functioning of the participants and impeded the physical activity tasks planned for them.

No mä yritin kuntouttaa, koska siihen sanotaan, että pitää liikkua paljon ja sain semmosia ohjeita ja mä niinku yritin, mutta sitten se alko se niinku alussa niinku tuntu, että tässä niinku lähtee niinku

paranemaan, mut sit se vähitellen oli noin ja se oli vaan kipee ja sitten oli jo alko se liikkuminen olla ihan sietämätöntä. ***Well, I tried to rehabilitate because they say that one should be physically active, and I received instructions and I tried. In the beginning it felt like it was getting better, but after a while it just hurt and then movements started feeling unbearable.*** *[P3: 19]*

Se on vaa jääny jotain et on tai on sitten kyllähän siinä sitten joskus jos on kipee, et tuntuu kipuja, nii ei niiku ei sillon niiku halua tehdä ja… Enkä mä usko, et se ois niinku tarpeenkaan tehdä sillon, kun on kiputilassa… Mut sen sit vaa niiku menee, että menee että ei ei oo tullu nyt tehtyy, mut kyl se on se kipu kipu mikä siinä on. ***Sometimes I just leave them (the exercises) and yes sometimes I am hurting, I feel pain, and I don't want to do them and…I doubt that they are necessary while in pain… But that's how it goes, that I haven't done them now, but it is the pain, the pain that affects it.*** *[P3:46]*

Nii, että sitä pitäs enemmän ja enemmän. Mutta se on jumalattoman kipee tuo. ***I know I should be doing more, but it just hurts so darn much.*** *[P1:40]*

Participant 5 had experienced excruciating pains before her last operation and was thankful to health care professionals for helping her although she herself had been unsure if people her age should be given significant medical attention. In her narrative, pain and comorbid health problems were present as a necessary part of old age, but she did not refer to them as barriers for active lifestyle or reasons for being physically inactive.

Mul oli vähän semmosta komplikaatiota sen viimesen leikkauksen jälkeen, että mä että mä en nyt enää, mä oon niin paljon vanha, et en mä enää, mutta kyllä ne sitten kehotti, että et ikä ei ole esteenä, et jos vaan kunto kestää ja sitä mä ees epäilin et kestääkö se kunto, mutta kyllä ne sit katso, että vois yrittää. ***I had some complications after the previous operation, so I didn't any more, I'm so old so I would not anymore, but they encouraged me to go and said that age is not an obstacle if your condition is ok. But I wasn't sure if my condition was, but they considered it worth trying.*** *[P4:52]*

Että se on nyt hävinnyt sitten se särky et kyl mä hyvin kiitollinen, että ne hoiti sen vielä kuntoon. ***So, now the pain is gone and I'm so grateful that they would still fix it.*** *[P4:42]*

Medication was perceived both as a barrier and a facilitator for functioning. Some of the medication caused adverse side effects. However, medication was considered as a factor that enabled staying active. Moreover, some of the participants pondered over medication issues. There seemed to be uncertainty over the impacts of medication and some of the participants contemplated on if they should take more medication or less medication to be able to function better.

Mut jos kolottaa jotakin oikein kovasti, nii ei sitä sitten lähe että mihinkään… Mutta kyl se mä otan särkylääkkeen (nauraa) ja lähen sitte. ***If I'm aching badly I won't go anywhere… Well actually, I'll just take a pain killer (laughing) and go.*** *[P5:35]*

Mutta, kun mä sit yritän itekseen tehä, niin se loppuu sitten alkuunsa, kun se sattuu niin paljon… Pitäskö mun ottaa jotain lääkettä, et mä jaksan sitten jumpata? Mulla on niin hirveesti muitakin lääkkeitä, että mä sain vatsahaavan viime kesänä. ***When I try performing them by myself, it usually ends right away because it hurts so much… Should I be taking some kind of medication to be able to exercise? I already take so many meds that last Summer I had an ulcer.*** *[P2: 39]*

Nää kivut ja on ollu ja vieläkin on ja (tauko) et et on valtava tuo tuo kipulääkitys mikä mul on nyt parhaillaanki vielä, siellä on näitä morfiinipohjasia kipulääkkeitä, mutta ei ne niinku tunnu en mä tiedä, ei ne ainakaan mul, en mä tiedä millaset ois huumeainevaikutukset, en mä niiku tunne minkään näköstä että mut osan aikaa päivästä mul on niinku hyvä olla, kun ne vaikuttaa, mutta etenkin aamulla nii nyt nyt mä oon nyt kokeillu sitä, että mä pistän jo kuudelta herätyskellon soimaan, et mä otan otan näitä kipulääkkeitä. ***I have had these pains and still have them… so I have enormous amounts of pain medication, even morphine based pain killers, but they don't appear to… I don't know if they have impacts like drugs, but I don't feel any. But at some point of the day I feel okey, when they are working. Lately I have especially in the morning experimented by setting the alarm at six and taking a pain killer.***
[P3:45]

Se on alkanu tämä lonkkaproteesi se on nyt oikeestaan parantunu… Parantunu, mut mul on sitten vielä kivut nää hermokivut mitk on jääny sieltä ja nyt ei oikeen tiedä, et mikä kipu on mistäkin… Ja mä oon nyt kokeillu sitä kipulääkitystä ööööö kipupoliklinikan lääkärin kanssa, sanovat et vähennetään mut mun pitäs nyt seurata, miten se vaikuttaa ja mistä ja en minä kyllä suoraan sanoo osaa määritellä. ***This hip prosthesis is just about healed now… Healed, but I still have these pains, this neuralgia. They have stayed, but I don't know what pain is what now. And with the pain physician we have experimented with pain medication. They tell me that I should cut down on it and I'm supposed to observe the impact. But I truly don't know how to define it.*** *[P3:14]*

Et välil se on sitte vielä sormissa sen tuntee ja ja ja jalois varpaissa ja semmosessa mutta kyllä sillä on toimeen tullu…Ottaa sillon kipulääkettä jos se tuntuu pahalta. ***Every now and then I still feel it in my fingers, feet and toes, but I have managed it. I can take pain medication if it feels bad.*** *[P4:56]*

Tiredness and weakening of vigour can hinder regular physical activity. Two participants described a great need for rest after everyday tasks. Participant 5 expressed that frustration over getting tired prevented her from engaging in activities she used to hold dear to her.

No kun mä oon ollu hirvee matkustelija, mut enää en pysty mennä… Mä väsyn hirveesti… Mutta ku jossain tilaisuudessa ollaan nii mä tuun kotiin mä makaan ihan en jaksa mitään ja joku niinkun maanantaina olin siinä tiputuksessa, nii eilinen päivä meni huilatessa… Et se vie voimat… Kun mä oon ennen olin pari kertaa vuodessa jossakin ulkomailla Teneriffalla tai Portugalissa ollu Kreikassa ja Italiassa ja mutta et ei ei tuu yhtään mieli lähteä… Mä tiän et voimat menee sit vaan harmittaa. ***I have always been keen on travelling, but I can't do that anymore… I get terribly tired…After I go somewhere and get back home, I just lie down without energy to do anything. Like on Monday I had my infusion, so yesterday I had to rest all day… It sucks all my energy… I used to travel abroad once or twice a year to Tenerife, Portugal, Greece or Italy, but now I don't feel like going anymore… I know I would get tired and that would just irritate me.*** *[P5:42]*

Autolla pääsen niinkun liikkumaan kuitenkin, mutta mut kyl se tommoseen isoon Prismaan meet ja sieltä kun haet, se vielä siinä se liikkuminen, mutta niitten tavaroitten siirtäminen. Kärryltä hihnalle ja hihnalta kärryyn ja sitten taas au-autoon ja muuta niin kyl mä oon ihan poikki kun tuun siitä, et ei siitä, vaikka niiku tuntuu kyl et ei tässä oo mitään mitään, mut se väsymys mikä siinä tulee. ***I drive to places but once you go to a big store and you search for stuff and move around and move the items from the shopping cart to the cash register and back to the cart and then to your car and all, well I'm totally beat after that. So even though it feels, it's nothing, but it really gets me tired.*** *[P3:24]*

Et mut kyllä se oli sikäli jo alko kyllä tuntua että voimat ei enää niinkun riitä siinä laskettelussa että öö et siit ei niin sitten nauti. ***It just started to feel that I don't have energy for downhill skiing, so it wasn't enjoyable anymore.*** *[P3:7]*

Mul on kyllä semmoset kotijumppaohjeet täällä, että kyllä mä yleetä venyttelen ja vähä pikkusen jumppaan vähän laiskasti kyllä täytyy sanoa joskus väsyttää, mutta mut kuitenki et ylläpitää sitä lihaskuntoa. ***I have instructions for home exercise, and I do stretch and exercise a bit, but I have to confess I do it lazily because I get tired sometimes. But anyway, a bit to maintain muscle strength.*** *[P4:9]*

Ja sitten nuorempana tietysti hiihdin ja muuta, mutta kylhän se jääny ja ei sitä enää ja sitten tietysti ikä tekee sen ettei sitä jaksakaan nii paljon enää. ***When I was younger I used to ski and everything, but not anymore and of course at this age one doesn't have that much energy any more.*** *[P4:17]*

Nii joo riippuu vähän nytten joskus tuo elo oleminen on niin paljon heikompaa kun joinakin päivinä on paljon virkeämpi, että sitten tulee tehtyä ja muuta mutta täytyy kyllä myöntää et esmerkiks tänää mä en ole tehny. ***Well yes, it depends, sometimes I feel weaker and then on other days much perkier. So on those days I do more things, but I have to admit that for example today I haven't done much.*** *[P4:30]*

Previous physical activity can help in maintaining muscle strength, mobility, and balance, thus can function as a facilitator to further physical activity in a physiological level. Furthermore, previous active lifestyle can function as an intrinsic motivator in an emotional level and as learned behaviour. Thus, previous PA as a facilitator is also addressed in the following chapters.

Mä oon lasketellu kyllä että olin vielä kaks vuotta sitten vielä Alpeilla kävin joka talvi. Laskettelemassa ja sit mä niinkun et sitte ku olin öö kahenksakytkolmevuotissynttäreitä vietin siellä nii mä aattelin et sit pitää mennä vielä Kitsbyyn eli laskemaan se syöksyrinne sieltä ja senhän mä sitten kyllä tein ja ja sit mä olin niiku päättäny että mä lopetan siihen ja siin oli kyllä aika aika semmonen jännä henkinen, et mä päätin et mä pistän monot heitän roskikseen hotellin roskikseen ja se oli kyllä aika vaikee tilanne, että että (tauko) luovunks mä siin rakkaasta harrastuksesta. ***I used to downhill ski and travelled to the Alpes every winter, even 2 years ago. I was downhill skiing and on my 83rd-year birthday I figured that I want to come down the Kitsby slope. And I did because I had decided that after that I'll be done. That was an interesting experience. I decided to throw my ski boots into the hotel trash bin and that was hard for me… like was I really giving up a hobby I love.*** *[P3:7]*

Olen aikoinaan paljon paljon kävelly ja ja lenkkeilly ja hiihtäny lapsuudessa ja luistellu ja muuta et mä oon ollu semmonen liikunnallinen aina. ***I used to walk and jog and ski a lot as a child, and also skate. I have always been physically active.****[P4:10]*

Minä olen veteraani ja mä olen käyty kerran viikossa ja mä oon ihan varmasti parikymmentä vuotta nii käyny siinä veteraanijumpassa joka keskiviikko. ***I am a veteran, and for twenty or so years I have been attending the exercise group for veterans every Wednesday.*** *[P4:6]*

Kyl se varmasti pohjusti pohjusti sitä sanotaan et luittenkin vahvuus ja muuta riippuu siitä, että mitä mitä tuota tekee kahdeksantoistavuotiaaks tai kahteenkymmeneen vuoteen saakka. ***I'm sure it was the basis… They say that the durability of bones is related to the things you do up to the age of 18 or 20.*** *[P4:36]*

nii mä kyllä käyn kuntosalilla, ei sen puoleen ja satanelkyt kiloo nousee jalkaprässillä…… Koska mä tiedän paljonkin semmosia, jotka ei tee mitään, ne vaan istuu ja oottelee, että tapahtuuko mitään. ***I do go to the gym and I have to note that I leg press 140 kilos…… because I know a lot of people who don't do anything. They just sit around and wait to see if anything happens.*** *[P5:14]*

6.2.2 Emotional factors

The identified barriers related to the major theme of emotional factors included fears and insecurity or caution, shame and self-criticism, loneliness, and problems in adjusting to a new life situation. The identified facilitators were enjoyment of physical activity, perceptions of efficacy, hopefulness, and trust in professionals.

Fears, insecurity, and caution as barriers to physical activity came up in every interview. Fear of falling was the most apparent emotional barrier to PA, but the participants also described fears and insecurity over illnesses, death, loneliness, and asking for help. Participant 3 mentioned fears of other older people and stressed again the importance of psychosocial support on handling fears of ageing people. Correspondingly, participant 1 highlighted the presence of another person and trust in the rehabilitation worker to be key aspects in dealing with fears.

Mun ystävättären äiti oli kanssa ja se sitten pääsi tuonne nii sil ei ollu minkään näköstä, ois pärjänny kotona asumisena, mut sillä tuli semmonen olo, kuolemanpelko tai joku yksinäisyyden pelko tai joku muuta nii nii semmonenkin ois ihan kyllä hoidettu hoi- jos ois niinku saanu niiku henkistä tukea siihen. ***The mother of my lady friend got a place in… she could have made it at home, but began having these feelings, fear of death or loneliness or something like that. That could have been tended to just by giving her some emotional support.*** *[P3:66]*

No, siinä kun on toinen kato läsnä ja se laittaa niitä, ni se luottamus. Ja PELKO MENEE POIS! Että siinä uskaltaa tehä sitte. Ei se mitään kauheita liikkeitä teetäkkään. Mut kumminki... Toiset teettää toisella lailla. ***Well, when the other person is there and present, it's the trust. And FEAR***

DISAPPEARS! And then there is courage to do things. She doesn't make me perform any terrible movements. But anyway… Others instruct differently. *[P1:100]*

Each of the participants talked about having fallen themselves before or about previous falls of people they know. Fear of falling was either stated straightforward or talked about through avoidance behavior. Antecedents to fear of falling appeared to be previous falls, knowledge of other people falling and weather. Winter with slippery and icy roads increased fears of falling and avoidance of going outdoors. Thus, fear of falling is further elaborated in the chapter that describes environmental barriers to PA.

Mä en oo pihalle päässy, ku mä en uskalla lähtee tämmösen kanssa (rollaattori). Mehän jo kepin kanssa mentiin K:n kanssa sitä.. mikä sen nimi... Niin se otti kainalosta kiinni ja mä mä en uskaltanu ulos lähtee... ***I haven't been able to go outdoors, because I don't have the courage to go with this (the walker). We did already go with K… or what's her name… She took me by my arm but I didn't dare to go.*** *[P1:80]*

Ennen oli kaikkii kivaa, on päästä uimaan ja sillai, nytki ku on ollu kaverin kanssa mietitty, haluttas teatteriin johonki, jotakin katsomaan, mutta ku ei ei oo päästy yksin sitten mitään kappaletta mennä kattomaan… … Ja oonks mä käyny jossai, en mä nyt tiiä, mä on pelänny sitä teatteriinkin menoo, siel on niitä rappuja niin paljon ja ihmisiä ja paljon ja sitten ne tönii ja sitten kun mä kaadun sinne niitten jalkojen juureen, jään jalkoihin sinne…Kaikkee tommosta sitten on mielessä…Sitten se jää se lähteminen. ***Eveything used to be fun. I got to go swimming and everything. And with my friend we have been thinking about going to the theatre to see something, but we haven't and it doesn't feel right to go by myself…… And have I been going to places? I don't know, I've been frightened to go to the theatre, the stairs there and all the people pushing and shoving. I fear I would fall and just lie there at their feet… I ponder over things like that… And then just avoid going by myself.*** *[P2:57]*

No se oli ja sit oli liukasta sit tuli kauheen liukasta, tytär soitti joka päivä et et kyllä mene ulos että siellä ihmisiä meijän tässäkin talossa nii toisella meni lonkkamurtuma ja ja tuota ei ku se oli sillä sillä siellä jumpassa meni lonkkamurtuma kaatu ja sitten tuota toiselta meni ran-ranne kaatunu. ***Well, it was terribly slippery. My daughter called me every day and told me not to go outdoors. There are people in this housing complex, one of them fell and broke their hip in the exercise group and the other fell and ended up with a broken wrist.*** *[P4:21]*

Mää oon niin arka (kuulostaa surulliselta). Mä osastollaki, kun mä jouvuin virtsatulehuksen takia sinne uuestaan sitte. Ni mää kaavuin sinne vessaan. ***I'm so cautious (sounding sad). In the hospital when I had to go back because of UTI. I fell there, in the bathroom.*** *[P1:83]*

Mä kai siitä sain, ku mää siellä osastollakin kaavuin niin pahasti sinne… …No että, PELKO. ***I guess it began when I fell badly in the hospital……well, the FEAR.*** *[P1:98]*

Nokun mä pelkään nyt sitä kaatumista, se on tullu mulle näitten kaatumisten jälkeen, mitähän mä oon viis kertaa nyt kaatunu tai…Mä pelkään täällä kotonakin sitä…Mä oon täällä sisälläkin kaatunu. Ulkona kaaduin kaks kertaa. ***Because now I'm scared of falling down. It's after all these times that I have fallen, probably five or so times. I fear it at home, too. I have also fallen here indoors. And I fell twice outdoors.*** *[P2:34]*

Mutta kun no en mä nyt oo uskaltanu pyörällä ajaa, kun mä tuota hu-huippaa välillä, nii en oo koko kesänä ajellu… …Olen ihan jatkuvasti mä oon pyörällä kulkenu… …Joo, joo kun mä oon nimittäin kaatunu tässä sitten kerran tuota löin pääni tuohon seinään on vieläki tässä kuhmu. ***But I haven't dared to ride the bike, because every now and then I feel dizzy. I didn't ride my bike the whole summer. I'm used to always going to places by bike… … Yes, you see, I have fallen here and once I hit my head on the wall. I still have a bump here.*** *[P5:20]*

Trust in professionals functioned as an antidote to fears in some cases like participant 1 earlier stated. Whereas the ability to stay mobile and active can itself evoke enjoyment and perceptions of efficacy which can further motivate to engage in physical activity tasks.

Se niinku aika motivoi! Kyl mä tiiän, että niitä pittää tehhä ite, eikä jäähä oottaan sitä toista. Mutta tuota.. hmm, kumminkin se on... Se jotenkin motivoi siihen. Että niinku PIRISTYY lähteen……No, se just ku se on niin varma kato ja se opettaa niitä liikkeitä, vaikka mää ne kaikki tiiän ite ja teen itekkin ne, mutta mun on AINA kauheen hyvä olla, kun ne on tehty…… Ja sitte se just se kävelyttäminen! Mä sanon, että mitenkä voi olla mahollista, että mää kävelen näin! "Piät vaan kii siitä!" Siis se laittaa niitä mun tuolia tohon, tota, niinku pysäkin varaks ja... Sit mää koitin viimeks ku me oltiin, ni MÄÄ EN OTTANU YHTÄÄN KIINNI MISTÄÄN! Sano: "Otat hellasta. Otat tiskipöyästä." Nyt mää en sitte ottanutkaan. Et me mentiin, niin MÄ LUOTIN SIIHEN. ***It just motivates! I know I'm supposed to perform them myself and not to wait for the other person. But you know… it still… somehow it just motivates. Somehow it cheers me up to go… Well, the fact that she's so certain and she teaches the movements, even though I know them already and perform them on my own, too. But I feel so good EVERY TIME after the exercises… And when she walks me! I wonder every time, how is it even possible that I can walk like this! "Just crab a hold of that!" She places a chair there as a stop for me… Last time I tried, I DIDN'T HOLD ON TO ANYTHING! She said: "Take support of the stove and the counter." And this time I didn't. We just went and I TRUSTED IT!*** *[P1:34]*

En mä osaa sanoa että sitä mä aattelin et mä taisin olla aika huono vanhus siinä että (nauraa)……Kun mä osasin tehä kaikki…Nii, ettei niien tarvinnu opettaa ja neuvoo ja sillä lailla. ***I don't know what to say about it. I must have been a bad older person for them (laughing)… Because I knew how to do it all… They didn't need to teach or instruct me that much.*** *[P5:27]*

Feeling shame for not engaging in the rehabilitation tasks can be a consequence of other barriers of physical activity, but as such an intrinsic stressor. Participant 2 recurrently contemplated on her own shortcomings being a barrier to the home-based rehabilitation. She verbalized that she felt shame when talking about her rehabilitation process. She pondered over the thought of not valuing herself enough to engage in activities that would enhance her physical state. Although she criticized herself for being too lazy and having too many illnesses, she repeatedly asked the interviewer what the reason could be for her not to engage in exercises even though she was interested in them. Assumably, being able to discuss these difficult emotions could have benefited this participant.

No varmaan ne oli hyviä liikkeitä, ku ois vaa tehny niitä. Mä sanoin L:lleki, et mä oon nyt pettymys sinulle ja teille koko tutkimukselle ja itselleni, että mä olin niin laiska, ettei musta ollu, kyllä sen nyt huomaa sitten tuosta polvestaki, että ei tullu tarpeeks tehtyä, että se on vähän semmonen, ei oo vielä tullu hyväks polveks. ***I'm sure they would have been good exercises, if I only had performed them. I even told L that I'm a disappointment to you and the whole research project and to myself. I was so lazy and wasn't up to it. Even observing this knee, I notice that I didn't do enough. The knee is still not well.*** *[P2:26]*

I: Mikä ei toiminut siinä kotikuntoutuksessa? ***So, what did not work well in the home-rehabilitation?***
P4: No se oli tää minun laiskuus. ***Well, it was my laziness.***
I: Että te- ***So you…***
P4: Niin, L ei tuota koskaan moittinut… Mut minun mielestäni hän ois voinu jotenki reagoida siihen, kun tuli uudestaan ja näki, että mä en ollu yhtään paremmaks tullu…(nauraa) Olis jotenkin vähän ollu vihanen mulle tai (nauraa)…Oisinko mä yrittäny sitten enemmän?...Emmä tiiä, se mulla vaa meni sit sillai että ei, mua nolottaa puhua näistä ihan. ***Yes, L never scolded me. But in my opinion, she could have reacted when she came back and noticed that I hadn't gotten any better… (laughing). She should have been angry at me (laughing)… Would I have tried more? I don't know, t just happened that way and I'm embarrassed to even talk about this.*** *[P2:41]*

No se just ku mä en tehny niitä liikkeitä, enkä välittäny sit niin paljon ittestäni, et oisin koittanu saaha itteni, kuntoni paremmaks. Kylhän se nyt nolottaa, hävettää…Mä en ymmärrä, miks mä olin semmonen. Noillekki joillekki hoitajilleki oon joskus puhunu, ne sanoo niin se on ihan tavallista, että niin moni tekee (nauraa) monelle käy kuulemma niin…Pitäs pitäs, mutta kun ei. ***Well the fact that I didn't do the exercises, and I didn't care enough of myself to try to get into a better shape. Of course it's embarrassing. I'm ashamed… I can't understand why I was that way. When I've talked to some nurses, they have said that it's norman and happens to many people… I should, I should, and then no.*** *[P2:41]*

Participant 2 mentioned loneliness, being alone or a yearning for a friend as a barrier for physical activity in six quotes in her interview. A wish for social support was mentioned also by other participants and is addressed in the next chapter, but in the interview of participant 2, the feeling of loneliness and the barrier of being alone had a more prominent role.

En sitten hoksannu ruveta oikein niin kun kuntoilemaan tai pitämään kunnosta huolta, että kävelin, kävelin kaupassa ja sillä lailla (tauko), pyöräilinkin joskus, mutta oli se aika vähästä……Yksin ei aina tuu niin lähdettyä mihinkään. ***I didn't realize I should have begun to work out and take care of physical state. I did walk and go to the store, sometimes even rode my bike, but only scarcely. One doesn't tend to go anywhere when alone.*** *[P2:1]*

Es-esimerkiks vesijumppa, mä tykkäsin siitä hirveesti. Mul oli yks ystävä täällä, hänkin oli leski-ihminen ja käytiin kerran viikossa tuossa uimahallissa, tykättiin kumpikin hirveesti siitä ja mutta sitten kun hän muutti pois, lapset houkutteli hänet pois täältä ja mä jäin sitten yksin ja mä jotenkin mä kyllä niin niin, en tiiä, onko se nyt surua tai oliko se jotakin kiukkua tai muuta, mutta mä en menny enää sitten uimahalliin yksin… Se jäi siihen, enkä menny sitten myöhemminkään. ***For example, I liked hydrobic tremendously. I had a friend here, a widower too, and we went to the swimming pool once***

a week. We both liked it so much. But when she moved away, her children drew her from here. And I stayed behind alone, and somehow I don't know if it was sorrow or anger or what, but I never went back to the swimming pool alone. That was it and I never went even later on. *[P2:11]*

Ei musta oo oikein yksin lähtijäks ja puuttuuko siitä oma-aloitteisuutta tai jotakin. Mä oon yksinäinen, mä oon ainoo laps, mulla ollu kavereita koskaan, onko siinä sitten jotakin. ***I don't have it in me to go alone. I don't know if it's lack of assertiveness or what. I am lonely. I am an only child and didn't really have friends. I don't know if that has something to do with it.*** *[P2:50]*

For every participant, decline in mobility had led to giving up some meaningful activities in life. A new life situation can evoke emotions of sorrow, waivering, uncertainty and even surprise. Thus, adjusting to a new life situation can be problematic and a person may need support addressing the related experiences. On the other hand, having hope of regaining mobility and some of the valued activities can have a facilitating role in the rehabilitation process.

Mää haluaisin käyä jossaki. Vaikka kaupungissa…Ja tota, ystävät ruppee olemaan sillain, että kaks on, jonka kanssa mä olen, laitan viestejä. Ja nekin on jo, no on ne pari vuotta... Paljon se tuota meinaa tuo kaks vuotta kyllä. Ku ihminen ois kauheen hyvä, mutta ne on tota liian kaukana. Mä oon ennen ollu kova uimaan, mut se on nuoruuessa. Ja sitte tuolla tyttären luona ku on kiva sen takia, et niillä on se lampi. Semmonen hyvä ja tyttären mies teki mulle kuule raputkin sinne. ***I would want to go somewhere. For example to the city… And well friends are beginning to, well there is two who I message with. And they are already couple of years, well couple of years is a lot at this age. A human contact would be great, but they are too far away. I used to be keen on swimming when I was younger. I like visiting at my daughter's place because they have a pond there. A nice one and her husband even build stairs for me there.*** *[P1:104]*

Kepin kanssa kävelin tuohon lähikauppaan, pääsin hyvin ja sitten tällä kyytiveikolla mikä täällä, niin sillä oli mukava mennä keskustaan, niin siellä kepin kanssa kävellä sitten asioilla ja taas tulla sillä pois…Mut nytten mä en enää pääse tuohon lähikauppaankaan…Hyvin lyhyiks käyny…reissut. ***I used to walk to the nearby store with my cane, I did fine. And it was nice to ride the shared taxi to the city centre, to wander around there with my cane and do my chores and then take it back. Nowadays I can't even get to the nearby store. Very short are my trips nowadays.*** *[P2:67]*

No ehkä suurin muutos on, mä oon aina kaikennäköstä tehny…Ja ja nyt oon niinku oikeestaan luopunu (tauko) mä oon kyl jotain oon tehny, lampun korjannu ja jotain mutta niinkun semmosta askaretta ja muuta ne niinku loppu niinku seinään, en mä ja et jotain nytten niinku oon ottanu, et en mä, se ei enää multa onnistu, se on jääny pois…Mä en enää autoa pese, enkä enkä puunaa…Vaan ja niitä on kaikkea se joitakin semmosia pieniä asioita, mitä mitä niinku ja öö on löytää semmosen jonkun tylsän tien, että katsoo mitäs tänään tulee televisiosta ja toteaa et eihän siel oo paljoo mitään taaskaan uusintoja ja muita ja e-ei niiku paljon viiti ja sitten oikeestaan taas se voi olla myös sitten se ikä ku tuntuu, että semmosia ystäviä vähän niiku kuolee sieltä sun täältä aika paljon pois…Jotka on ollu niiku aika tärkeitä loppujen lopuksi…Semmosia läheisiä on kuollu, ööö ja sitten alkaa huomata, että vaikka niinku tuolla ku olin haavapolilla nii haavapolilla nii siellä se hoitaja ystävällisesti se

katso, että hän hän haluaa sit lääkäri vielä kattos tätä näin ja ja se sitten soitteli siinä vähän aikaa, täähän on semmonen vanha mies, joka pitäs tulla, voitko tulla katsomaan, mä sit sanoin mikään pirun vanha minä…Mutta se vähän vaa pelästykin varmaan, luuli et mä oon tosissaan. ***Maybe the biggest change is that I have always actively done all kinds of chores. And now I have pretty much given up… I have been doing some little things, fixed a lamp and something. But doing chores pretty much just ended cold turkey. I have tried something, but haven't been able to do it, so I have given up on those. I don't wash the car anymore or clean it. Only little things and then you just find something boring like let's see what's on TV today, and find out that there's nothing again, just reruns, and you don't really feel like doing much. Also, at this age, it feels like friends just die here and there. People who have been close and important. And you begin to notice things like for example in the in the wound clinic the nurse was very friendly and wanted the physician to double check. So, she called the doctor and said: "There's an old man here, could you come and see him?" And I told her that I'm not freaking old… I think I scared her a bit. She probably thought I was being serious.*** *[P3:30]*

Mutta se… mökki…… se on ihan kaunis paikka semmonen itse paikkana, mutta nythän se alkaa olla viime kesä meni vähän huonosti, ku mä olin, oli näitä sairauksia…Kyllä mä kävin pari kertaa, mutta ei ei se niikun on vaikee vaikee se, sinne mäelle mennä ja muuta ja en nyt tiedä miten sen kanssa, mut ehkä mä tässä vielä toivun, toivun. ***But the summer cottage… it is such a beautiful place. And now it's beginning to be… last summer was pretty bad with all these illnesses… I did go there couple of times, but it's difficult it being on a hill. I don't know what to do with it, but maybe I will get better, get better.*** *[P3:11]*

Tytär…oli kymmenen vuotta Amerikassa ja kävin häntä tapaamassa ja sitten sitten matkustelin aika paljon tuolla Kauko-Idässä ja sieltä että olin vapaa lähtemään koska vaan…Mut nyt on vähän tuo liike rajaa ja ikä rajottaa, jottei enää tule enää tule sillä tavalla. ***My daughter… lived in America for ten years and I went to visit her and also travelled a lot in the Far East. I was free to go any time. But now I have limits with mobility and age also brings some limits, so I don't really do that anymore.*** *[P4:55]*

I: Ja mitäs toivositte enemmän, mitä toivositte pystyvänne tekemään enemmän? ***And do you wish to do more of something?***
P5: Ajamaan pyörällä… Joo, ja sitten talvella hiihtämään, mut mul on eri juttu siinä, että mä oon sairastanu aivoinfarktin…Ja mul on näkö vaikuttaa se…En uskaltanu metsään lähtee hiihtämään, koska mä en nää enää niitä laitaosia…Mutta ootan, että jäät nyt kun on nii huonot talvet ollu, ettei oo kunnon hiihtokeliä. ***To ride my bike… And to ski in the winter time. But the thing is that I have suffered a stroke and it affected my eye sight. I haven't dared to go ski in the woods, because I don't see the sides anymore… But I'm hopeful, that once the lake freezes over. We have had such awful winters and bad weather for skiing.***
I: Mm. Mut haluaisitte hiihtää? ***But you would like to ski?***
P5: Kyllä. ***Yes.***
*I: Ja aiotteko hiihtää?****And do you plan to?***
P5: Kyllä aion joo. ***Yes, I do plan to.*** *[P5:40]*

6.2.3 Social support factors

Social support was perceived as a significant determinant of physical activity and commitment to the rehabilitation process. The importance of social support in a form or another was mentioned 32 times in the interviews. The forms of social support mentioned in the interviews included support from professionals, peer support involving friends or peer groups, and support from significant others or family members. A possibility for an individual tailoring of support for rehabilitation was desired and seen as a potential facilitator of physical activity.

Limited support from professionals was viewed as a barrier of adherence whereas having a professional visit, to teach the exercises and to encourage performing them, was considered a significant facilitator. Being physically active with another person was perceived motivating and enjoyable, while exercising independently was more challenging. Having another person close seemed to facilitate perceptions of efficacy which was discussed in the previous chapter. Having a professional visiting regularly just to check up, how things were going, presumably enhanced perceptions of being cared for and feelings of safety.

No kyllä mä niitä tein, kyl mä niitä tein ja sitten välillä kun oli jääny jääny tekemättä nii oli vähän huono omatunto, että että jos se ei niiku tämmöstä kotikäyntiä olis, nii ei ois varmasti huono omatunto, vaik ois vaa maannu selällään… …No tietenkin minusta se on hyvä hyvä se huono omatunto että se edistää sitä paranemista. ***Well, I did perform them, I did. And then at times, when I had not, I felt a bit bad about it. So, if there weren't any home visits, I wouldn't have felt bad, even if I just lied around all day…… Well, of course I think, it was good that I had a bad conscience. It helps me get better.*** *[P3:41]*

No se oli juuri se että se on säännönmukaista tolleen joo. Ja on se se kontaktin saaminenkin sitten tulee ihminen tänne ja jutellaan ja ja ja tuota ja käydään näitä läpi ja näitä liikkeitä ja muita kyllä se on kyllä mä sen pidän hyvin positiivisena. ***Well, it was regular. Having a contact, having a person come over and we discuss thing and go over these exercises and all. I consider it positive.*** *[P4:31]*

Participant 3 systematically brought forth the perception that the psychological aspects of social support are the most important factor in home-based rehabilitation and surpass any direct physiological benefits. There were 9 mentions of this in his interview.

P3: Ja sit se oikeeastaan mä niinku oikeestaan se jäi oikeestaan se kotikuntoutus paitsi sitten mikä oli tämä ohjelma täältä tuli sitten tämä fysioterapeutti… …Neuvo, mitä liikkeitä pitäs kannattaa harrastaa, mutta ja ja no emmä tiedä, oisko oisko siinä nyt sitä henkistä tukea tai muuta jotain myös ollu et ööö en tiedä oisko, onko onko semmosta olemassa vai oonko mä, en osannu pyytää sitä. ***And that was pretty much it with the home-based rehabilitation except for this program with the***

physiotherapist… She instructed what kinds of exercises would work, but I don't know if there was any mental support or something. I don't know if there is such thing or if I just, maybe I didn't know how to ask for it.
I: Tarkotatteks te, et semmosta ois ehkä tarvinnu? ***Do you mean you would have needed that?***
P3: Joo. Kyllä sitä jonkin verran ja kyl sitä vaikka öm pärjää niinkun näin yksin tai muuta, mut kyl siin niiku pikkusen tää elämä muuttuu, kun on kotona, et ei niiku pääse liikkumaan. ***Yes. Somewhat, even though I'm doing ok alone, but it is a change in life, when living at home and not being mobile.*** *[P3:22]*

Et et se henkinen puoli on enemmän kun melkeen se fyysinen puoli…Siinä fyysisessä puolessa nii senhän voi antaa ohjekirjassa mut se henkinen puoli, et se saa et kyl ihan selkeästi et niinku joku joku saa innostumaan tekemään tekemään se että…Ihan alussa oli joku fysioterapeutti en tiiä kuka minkä niminen se oli, mutta se oli niiku aika lailla kannusti kannusti niinku vähän ylisuorittamiseenkin. ***So the mental side is almost more important than the physical side… You can give the physical side in a booklet, but the mental aspects, that there is someone who clearly gets you inspired to perform them… In the beginning there was this physiotherapist, I can't remember her name, but she encouraged me a lot. She encouraged me maybe even to overdo it.*** *[P3:65]*

Peer support or friends where mentioned 16 times in the interviews. Peer support could be viewed from both negative and positive side of the same phenomena. Lack of peers with similar interests came up as a barrier and having support from peers, as a facilitator. The lack of peers with similar interests, friends getting older and dying or not being able to spend time with peers was considered sad and decreasing physical activeness. Whereas having peer support was viewed as an important and activating factor.

Et siinä mielessä (tauko) no niitähän on mä oon niinku, on kaikennäkösiä vertaistukia ja niitä on varmaan tommosia, en tiedä millasia ne on, mutta tietenkin ois hyvä selvittää, en mä varmaan ois mennykää jonnekin ryhmään menny, mis siel on mummoja ja papparaisia ja kaikki valittaa siinä, niin ei mua niin kauheesti se kiinnosta, mutta en mä tiiä millanen se pitäs olla, mutta. ***Well, there are all kinds of peer support groups, I suppose. I don't know what they are like. But it might be worth mapping them out. I doubt that I would have gone to a group with grandmas and grandpas complaining about stuff. That doesn't interest me, but I don't know what kind of group would suit me.*** *[P3:29]*

Ja se on kauheen mukava kun ne tulevat bussilla tai tuota taksilla hakemaan ja tuovat ja se kiertää täällä sitten, että siel on mukava siellä tavata sitten, mutta se piirikin on pienentyny ja pienentyny, että meil oli vuoden alussa nii oli meitä kymmenen ja nyt viimeks oli kolme vaan siellä, ain on jollain jotain esteitä ja muita mutta…Mutta kyllä sen huomaa siit et sillon kun alotti aikoinaan niin oli niin paljon nuorempii ja vetreämpii, moni on kuollu niistä jo. ***And it is terribly nice when they come by bus or taxi to pick me up and also take me back home. It's nice to meet there, but the group has gotten smaller and smaller. We were of 10 in the beginning of the year and last time there was only three of us. Someone has an obstacle every time but… But it is noticeable that when I started everyone was younger and more flexible, now many of them are dead.*** *[P4:7]*

No musta ne oli siis hirveen tärkeitä että samanlaisia sairauksia nii se on niiku vertaistukee, että puhua niiden ihmisten kanssa, jolla on kokemuksia ja nii siitä sitte saa vinkkejä ja muita. ***I concider it enormously important that there is peer support for people with same kind of ailments, to be able to talk with people, who have experienced this and to get hints and all.*** *[P5:10]*

Participant 2 mentioned her longing for a friend in 8 quotes in her interview, remembering how in the past it had been easier to be active with friends and pondering over the lack of friends being a barrier for being more physically active. Her idea of having a peer with similar exercises in the rehabilitation program as a motivating factor, is worth considering, when planning a physical activity rehabilitation programs, especially for older people with limited social contacts.

No en tiiä, kaveri ois kiva. ***Well, I don't know, a friend would be nice.*** *[P2:52]*

Oishan se varmaan ollu hyvä, jos ois ollu semmonen kaveri, joka, jonka kanssa ois voinu, joka ois itekin innostunu niitä liikkeistä ja ois kilpaa tehty sitten (nauraa), kilpailtu, kumpi pääsee parempaan kuntoon… Se ois ollu hyvä……Ystäviä enää tässä iässä taho olla, toiset kuolee ja toiset menee palvelutaloon. Se alkaa olla tämmöstä se ja entisten työkavereittenkin kanssa jos tapaa tuolla kadulla, niin kyllä siinä melkein sairauksista vaan puhutaan, kyllä niillä alkaa olla kaikilla valitettavaa. ***It would probably have been nice to have a friend who was inspired by the exercises and with whom we could have rivalled over them (laughing), competed on which one of us would get into better shape… That would have been good… There's not really friends any more at this situation. Some die and the others move to a retirement home. This is how it tends to be these days. When I meet an old colleague on the street, we just discuss our maladies. Everyone has something to complain about.*** *[P2:63]*

Other close relationships like having family members or an intimate relationship facilitated staying active. The participants talked about how their children, grandchildren or significant others enabled activities they would not have pursued alone. However, the fact that family members where busy with their lives was also discussed frequently. The participants talked fondly about encounters with family members and seemed pleased of activities carried out together with them.

Joo. Mä asun omakotitalossa ja asun yksin, mul on kyllä ystävätär, joka, jonka kanssa paljon vietetään aikaa ja hän nyt on avustanut tässä, et ollaan syöty kyllä niinku yhdessä yhdessä ja ja ja mulla on nyt oikeestaan tämä asumis on aika hyvässä kunnossa. ***Yes. I live in a house alone. I do have a lady friend, with whom I spend a lot of time and she has helped me. We have been eating together and the living situation I have right now is fairly good.*** *[P3:2]*

Eilenkin kävi poika vaimonsa kanssa ja…Veivät minutkin kylään sitten…Pojanpojan luokse (nauraa)……No sehän oli mukavaa, kun en oo, heidät vihittiin viime kesänä, niin en oo vielä heidän

kotiinsa vielä mennytkään, että he itsekin niin kiireisiä kaksvuoro eikun kolmevuorotyössä, niin ei niil oo paljon aikaa käydä kylässä, eikä paljon aikaa kutsua vieraitakaan. Pitäähän tietysti sillon kun jotenkin järjestyy vapaata, niin sitten kutsua vieraita ja. Se on semmosta ja sitten yks toinen poika mulla käy kanssa. ***Yesterday my son visited with his wife and… took me to visit my grandson (laughing)……Well, that was fun, because I haven't… well they were married last Sumemr and I haven't visited their home. They are so busy working in three shifts, so they don't have much time to visit, or to have people over. That's how it is. Another son visits me, too.*** *[P2:25]*

Tässä käytiin nyt … eilen, kun mut sekin taksilla mentiin ja kun äitienpäivää viettämään ja…….Ja ja tossa niiku tyttärentytär asuu tuolla …, nii mut taksillahan me sinnekin mentiin, siellä voi sitten huoneistos kävellä ja muuta. ***Just yesterday we went to …, by taxi to celebrate mothers' day and… My grandchild lives there in another part of town. We took a taxi there, but then I get to walk in her apartment.*** *[P4:23]*

6.2.4 Learned factors

The theme of learned factors consists of determinants that are associated with the participants learning history as well as imminent reinforcement contingencies. While analyzing the interview data, the narratives of each participant were viewed as a lens to learning while reflections and interpretations over long- and short-term benefits of behavior were made. The learned barriers to physical activity oriented rehabilitation were identified as benefits of being helpless, and reverence for professional authority. The learned behavior of managing oneself independently can be seen both as a barrier to PA and rehabilitation as well as a facilitator when appearing as an assertive or gritty attitude toward hindrances. Other learned facilitators comprised of understanding the benefits of physical activity and learned healthy habits.

Perceptions on the benefits of physical activity enhancing rehabilitation were addressed in chapter 6.1. Maintaining mobility and muscle strength, being able to take care of oneself and everyday chores, and building courage to walk and stay active were considered as benefits of physical activity in the rehabilitation context. These factors can be interpreted as being learned motivators to physical activity tasks. An active lifestyle with healthy habits was a factor that appeared to facilitate staying active despite of health problems.

En mä tiiä mulla se on verissä. Ja kyllä nii hyvä mieli tulee kun sielläkin kuntosalilla käy ja siellä me ollaan tää on semmonen Jyväskylän kaupungin siinä … palvelutalossa tää tääl me ollaan lääkärin lähetteellä kaikki ja meijät on testattu semmonen kurssi käytiin et ketä ne huolii sit on ku itseharjottelijoita ollaan. Mut kyl siellä käy sitten aina kurkkaamassa ja kysymässä sieltä että mitenkä menee ja… Liike on lääke, niihän ne sanoo. ***I don't know, it's in my blood. I feel so good after I go to the gym. And all of us who go to the city retirement facility, we all have a referral from a doctor and we went through a course and they chose the ones who can train there, because we train at the gym***

independently. Someone comes every now and then and checks how we are doing… Movement is medication, that's what they say. *[P5:15]*

Joo. Et kyl mun pitää lähtee liikkeelle aina……Ja kun mul on tossa pihalla se laatikkoviljelys on ja tuolla ikkunan alla on kirveliä on ja että siinä mä liikun noin. ***Yes, I need to get moving all the time… And on the yard, there I have my box plantation and under the window there I have garden chervil growing. So I get my exercise there.****[P5:37]*

En mä oo koskaan aatellu mitään keinoa, kun meen vaa. Et se on ihan mun niinkun luonne semmonen, että aina pitää olla johonkin miettiä ja keksiä nyt missä pitäs käyä ja muuta. ***I have never thought about any means, I just go. My personality is like that. I always think of what to do and where to go and that kinds of things.*** *[P5:43]*

Participant 3 insightfully analyzed the downside of staying active. He described how older people tend to be punished for being independent by the decrease of social support and services. This can lead to a situation where an older person may socially and service vice benefit from staying helpless or inactive. As a solution he proposed reinforcing efforts toward independent functioning with for example social rewards.

Se on se on muuten yks varmaan tässä kotihoidon ongelmana siihen, et ihmiset tuntee, että (tauko) et ööö et jos mä niinku itse kävelen ja teen kaikkea muuta, niin ne palvelut niiku tavallaan loppuu siihen, mut jos mä heittäydyn siihen et mä oon näin tässä näin et siirtäkääs mut nyt tohon noin tohon keittiöön ja sitte tuntee sen, että joku ihminen tekee joka ei ei varmaan itse tähän sairauteen tai vammaan tai johonki sen kuntoutukseen sillä ei ole niinku suurta merkitystä, voi olla et se on voi olla päinvastanen merkitys, jättää sen omatoimisuuden, mut se pitäs se omatoimisuus nii minusta jollain tavalla palkita. ***It is probably one of the problems in the homecare that people feel, that if they walk independently and do other things, the services will end. But if I just throw myself here and do nothing and wait for someone to move me. It will probably not help the rehabilitation and actually it may have reverse effects. It may hinder the independence. I think, being independent should be rewarded in a way or another.*** *[P3:38]*

Reverence for professional authority appeared in some interviews as difficulties in asking for help or describing own symptoms to healthcare or rehabilitation workers. Some participants narrated their distrust and depreciation of their own experiences as opposed to professionals knowing better what was best for them. This subtheme can whilst overlap with the major theme of healthcare related factors. It is possible and an important issue to consider that in our society healthcare professionals have authority which can affect treatment if not recognized. Concurrently, it is essential for professionals to have time to ask questions when tending older clients since important information concerning their health and functioning may otherwise be missed.

Mää kato koitin olla sillälailla siellä osastollakin, eikähän siellä ois tarvinnu, tytöt ois tullu auttamaan vessaan. Mutta MINÄ KUULE sanoin, että minä en ruppee, minä lähin! Ja liian kauan olin rullatuolilla, sen takia, kun musta oli ihan hirveetä pyytää niitä hoitajia vessaan. Eikö oo hullua? Ku ei oo ikinä kato ollu! Ni liian arka. Kyllä NE olis tullu viemään! ***Like in the hospital, I didn't have to, the girls would have helped me to the bathroom. But I SAID, I'm not going to, and I just went! I had been using the wheelchair for too long because it felt awful to ask the nurses to take me to the bathroom. Isn't that crazy? I've never been in a situation like that. So too cautious. And THEY would have helped me there!*** *[P1:48]*

Niin, se opettaa sitä kävelyä, ni en minä tiiä, kun mun pitäs vaan näin vääntää... vääntää se niinku OIKEIN nyt onki! Mutta se tulee kipeeks tuo lonkka. Onko se nyt niin kauheen väliä, että mihinkä päin se menee, meneeks se sisään vai mitenkä? Se pitäs kato tää jalka mennä näin (näyttää).... Mutta ku se menee näin. Mä sanoin sille lääkärilleki tän toisen leikkauksen jälkeen se meni tämmöseks. Että mitenkä... Se, että: "Kyllä se siitä." (naurahtaa)… ... Joskus tympäsee, että en minä sitä saa. Siin ois naulat. Jos oisin tienny, ois pitäny... Mä en viime kerralla, kun mä kävin siellä sairaalassa, ni puhunut mittään tästä. Mä aattelin, että mä en ennää revitä itteeni mistäänpäin ***Yes, she teaches the walking, but I don't know, because I'm supposed to twist it like this… twist it RIGHT! But it gets achy that hip. Does it really matter, which way it points, inwards or our? The leg should go this way… But it goes like this. I told the doctor that it has been like this since the second operation, so how am I supposed…The doctor just said: "It will be all right." (laughs)… … Sometimes I get frustrated that I can't twist it that way. There are metal pins inside. If I just knew, I should have… I didn't tell them last time I went to the hospital. I didn't talk about this at all. I figured, I didn't want them to rip me open anywhere anymore.*** *[P1:37]*

P3: Mut sen sit vaa niiku menee, että menee että ei ei oo tullu nyt tehtyy, mut kyl se on se kipu kipu mikä siinä on. ***But that's how it goes, that I haven't done them (exercise) lately, but it is the pain, the pain is what affects that.***
I: Mm. Pystyitteks te sanomaan sit sille fysioterapeutille- ***Could you tell that to your physiotherapist?***
P3: No en mä sitä, en mä sen kummemmin sitä siitä sitten, mutta oli niiku vaan kuitenkin aika vähäsiä semmosia, et millon se jäi tekemättä, et. ***Well, no I didn't say that, no I didn't talk about that really. It was pretty rarely anyway that I couldn't perform them.*** *[P3:47]*

Difficulty asking for help can also be related to learned behavior of managing oneself independently, thus it is not necessarily connected to reverence of authority. While grittily managing oneself despite of hindrances, can be a great facilitator of physical activity, there can be a backside to being gritty. Asking for help and support can be a powerful skill, and when it comes to one's own health it can be outright dangerous to try to manage in every situation as seen in the quote [P3:43] from the interview of participant 3. An assertive and gritty attitude can however advance maintaining mobility and an active lifestyle despite of difficulties.

Se on ollu semmonen ..... mun on oikeestaan on ollu aina semmonen onks se tee se itse mies et mä oon kyllä, mä en niiku mitään, etten mä osais tehdä. ***It has always been like that… I have always been sort of a do-it-yourself man. That there really isn't anything that I didn't know how to do.*** *[P3:9]*

Sitten kun on taas vähän nukkunu, niin sitten tuntuu tuo sydän et mul oli niiku tässä viikko sitten oli oli selkeästi kun mä hieron, mun jalois oli varmaan tukos ja mä hieroin niiku käsin niitä jalkoja ja se lähti liikkeelle ja se meni keuhkoihin ja siin olikin aika harkinnan paikka, että tilaanko ambulanssin ja menen tuonne sairaalaan, kun oli veritulppa, mä sit ratkasin mul oli tuossa en tiedä teinkö oikein mut ehkä mä tein oikein mul oli semmosta ohennuslääkettä mä otin sitä sitä ja nitroa ja mä sain sen keuhkossa mut kyllä mul oli sitten muutama päivä, et mulla niiku mul on semmonen tunne, että välillä kun etenkin kun mä meen pitkäksi nii must tuntuu, että mä tukehdun, et mä en saa happea. ***When I have slept only a little, I sense my heart, lika a week ago it was clear that when I rubbed my legs there was a clot that started moving and it went to my lungs. And I had to decide if I was going to call an ambulace and go to the hospital with this blood clot. But I solved it, I don't know if I did the right thing but I had some blood thinner medication and I took that and heart medicin and I got it. But for couple of days I had this feeling that I couldn't breathe especially when I went to lie down.*** *[P3:43]*

Mutta kyl se mä otan särkylääkkeen (nauraa) ja lähen sitte… Joo. Et kyl mun pitää lähtee liikkeelle aina. ***"I`ll just take a pain killer and then go. Yes. I need to get going every day!"*** *[P5:37]*

Ku en mä niin vanhaks eläkään, että tuota (nauraa) et et sit kun ei jaksa enää nii sitten minä kuolen. ***I don't plan to live to be that old, so (laughing) so when I loose my energy, I will just die.*** *[P5:45]*

6.2.5 Factors related to physical environment

In the master theme of physical environment factors, the opposite aspects of functioning and disability as facilitators and barriers, as seen earlier in Table 14, unfolded most clearly. Own home with own chores and routines emerged as a facilitating factor for rehabilitation and physical activity, while recurrent hospital stays appeared as a major barrier. Having services can prolong the possibility of living at home and staying mobile, while some services reinforce inactivity. From this dataset transportation services arose as facilitating factors for physical activity, but not having transportation can also be viewed a barrier. Moreover, at some circumstances having transportation can reinforce physical inactivity. The immediate environment appeared both to support and to challenge physical activity. Having aid equipment facilitated physical activity and enabled living at home, whereas the lack of aid equipment hindered participation to activities. Weather was considered a barrier during winter in Finland, whereas in the summer it can be a facilitator of physical activity. Although

monetary resources appeared as barriers in this data set, having financial resources is a facilitating perspective of the same phenomenon.

The demobilizing effect of longer or recurrent hospital stays is observed in many of the interviews. Despite of barriers and challenges, all the participants valued the environment of own home and the possibility to keep doing house chores even if mitigated. House chores and everyday life routines at home were considered as an important factor in staying active and rehabilitation tasks were creatively integrated. Participant 2 admitted that in short term the constant support of nurses in a hospital environment feels enjoyable but acknowledged the importance of getting up and participating.

Niin ja sitä rollaattorikävelyäkin siellä, oishan se niin kiva jos sais, toinen kantaa sängyn viereen ruokalautaset ja kahvit. Mut kyllä ne toivo kovasti, et ku vaa ite jaksais, niin pitäs mennä sinne yhteiseen saliin syömään…Niin kyllä mä yritinkin sitten loppuaikana. Mä olin kolme viikkoo varmaan pisimpään siellä. ***Oh, and there was walking with the walker (in the hospital). Of course, it would be so nice to just have someone carry food and coffee beside my bed. But they urged me, whenever I had the energy, to walk to the shared hall to eat… I did try towards the end of my stay. I was there for three weeks at the longest.*** *[P2:36]*

P1: Mä olin viis viikkoo... Kyllä siinä kuule jo menee ihminen, kun se makkaa sängyssä... Sit tul tässä toisessa leikkauksessa se virtsatulehus, kun mä en saanu tehtyä ja mä annoin niihen laittaa sen katetrin. TAAS sinne sairaalaan! Olin viikon siellä. ***I was there for five weeks… It's the end of a person just to lie there in bed… And after the second operation I got UTI. I couldn't go to the bathroom so I let them catheterize me. And AGAIN to the hospital! I was there for a week.***
…
I: Joo-o... Ja sitten ku viis viikkoo olitte niinku ensin siinä, ni minkäslaista se oli se kotiinpaluu sitten sen jälkeen? ***Yes, and after the five weeks in the hospital, what was it like to return to home?***
P1: No, se alko, että mää ihmettelin, että mitenkä tää ei mikskään mee. Niinku M (tytär) sanoki, että täällähän se on paras, että jäät kottiis. Et ei sun selkäs tuu siitä sen kummemmaks. ***Well, in the beginning I wondered, why it wasn't getting better. Like my daughter said, it's just better to stay here at home. It won't hurt my back.*** *[P1:25]*

Mutta sitten kun tuota pesin pyykkiä meil on mankelihuone tossa numero ylöspäin nii sillon mä harjottelin kun mä kävin portaita pitkin tuon yhden kerroksen sit et tuli se porras porraskävely siinä……No sillon jos mul on paljon pyykkiä nii sillon mä menen hissillä kuudenteen mut jos mul on vähemmän nii kyllä mä sitten kävelen ne portaat joo. ***Well, when I did laundry, we have a wringler room one floor up from mine. So that's when I practised, I would walk the stairs up and I got to practise stair walking… Well, if I have a lot of laundry, I will take the elevator to the sixth floor, but if I have less, I walk the stairs, yes.*** *[P4:29]*

Niinku viimeki yönä, ku mä aattelin, että on se Luojan kiitos, että mä oon kotona, että... Mää että miten mulla näin kauhee nälkä on, että mun piti tulla tänne uuestaan syömään. Mä sain sitte heti unen. Et jos ois ollu sairaalassa, ni kyllähän siellä nyt saa, mutta ei siellä nyt kuleksita pitkin käytäviä. ***Like last night I thought:" Thank God, I'm home." I was so hungry and I had to walk back here to get***

something to eat. And after that I could sleep. If I was in the hospital, well of course you get to eat there too, but it wouldn't be possible to be roaming around the hallways there. *[P1:24]*

Services that facilitate and enable living at home were mentioned in 26 quotes in the interviews, including 8 quotes related to transportation services. Beside the social support factors, in this data set the services enabling living at home were the most prominent facilitator to physical activity. Although some services may in short term reinforce inactivity, the longer-term consequences of maintaining the ability to stay home, will presumably facilitate physical activity and mobility. The services mentioned in the interviews were transportation, physiotherapy and other rehabilitation, home-nursing, grocery delivery, housekeeping or cleaning services, snow shovelling, gym and exercise groups, and instruction services for older people.

On nautiskelu mul on hyvä siivooja joka käy kerran kahessa viikossa, ennen mä siivosin itse, mutta mutta se on aivan aivan paljon parempi homma ja nythän mä olin sitten öö nyt mul oli se yks mies käyny lumityöt tekemässä. ***It's enjoyable, I have a good cleaner wh comes every two weeks. I used to do the cleaning myself. But this is much better. And now I have that one man coming over to do the snow shovelling on the yard.*** *[P3:60]*

Sitten käy sairaanhoitaja, joka on välittää niinku minun asioita lääkärille päin ja taas toisin päin……No hän käy joka toinen viikko. Ottaa verenpaineet ja antaa, ja ottaa verikokeet ja antaa rokotuksetkin millon niitä tarvii. Et se tuntuu mukavalta, kun kotona saa, ei tarvii lähtee. ***And then I have a nurse visit here to pass on my messages to the physician and the other way around… She comes every other week, measures my blood pressure, takes blood samples, and even vaccinates me whenever I need it. It feels nice that I get to stay home and don't have to go anywhere.*** *[P2:20]*

Se on tuota kaupungin se OIVA-keskus semmonen, joka se on niinkun niitä vanhus vanhus tuota järjestää näitä kyl sielt saa vaikka minkälaista apua, mä ajattelin ihan kun mulla nyt täytyy vaihtaa puhelin ja nyt mul ei ookaan tuota tytär vei sen mun kännykän ja tänään haetaan siihen se uuteen kännykkään kaikki ne opettelemiset ja muut mitä on sitten voi pyytää, että. Oikein kärsivällisesti opettaa mut. Käestä pitäen et kuinka tää toimii. ***The city has this OIVA-centre where they have all kinds of assistance for older people. I had a thought that now that I have to swap my phone, and my daughter took my phone there. We are going to get all the teaching I need to use the new cell phone and all the information I need about it. They will teach me really patiently and concretely.*** *[P4:49]*

Transportation services, like individualized taxi services, shared taxi, or well-functioning and cheap public transportation, allowed the participants to participate in activities outside the environment of own home and to actively run errands independently. Furthermore, family members would help the participants with transportation and participant 3 valued the possibility to still drive with automatic gear.

Et mulle riittäs se, jos noihin lähikauppoihin ja postiin pääsis ja sitten tuolla kyytiveikolla tuonne keskustaan, siellä kävellen sinne asioilla, kun siellä joskus joutuu käymään pankissa ja jossain kelloliikkeessä tai jossain semmosessa. ***It would be enough for me to be able to get to the nearby stores and the post office and with a shared taxi to the city centre. I get to walk there and run errands, because sometimes I need to go to the bank or the clockmaker.*** *[P2:33]*

Kun minä menen kauppaankin niin minä tilaan taksin ja ja mut mä käyn harvoissa että kerran viikossa tai sitä kerran ja sit on niin paljon kantamisia ja muut et sitten mä tilaan taksin takasin. ***I even take a taxi when I go to the store, but I go rarely, maybe once a week, and I have a lot to carry, so then I also take a taxi back.*** *[P4:23]*

Mut onhan se täällä kun Sokoksellakin käy nii käy siellä niitä pitkiä käytäviä pitkin eri kerroksissa ja sielläkin tulee käveltyä……Ja apteekissa käyn sitten siinä Kauppakadulla ja et sillä vaikka se taksilla menee sinne nii siinä tulee liikuttua niissä ympyröissä sitten. ***Like at the departments store, there are long aisles on different floors, so that means walking……And the pharmacy, even though I take the taxi there, I get to walk around at the premises.*** *[P4:25]*

Joo ihan en mä mitään apua tartte ei……Ja linja-autot kulkee ja nyt on nää halvat eläkeläisliput euro kakskyt senttiä kun mä käyn kaupungissa ja takasin. ***Well yes, I don't need help… We have busses and the tickets for retirees are cheap, only 1,20 €, when I go to the city centre and back.*** *[P5:33]*

Aid equipment appeared to have become an inseparable enabler of living at home for the participants. The walker was the aid equipment referred to the most in the interviews. Four out of the five participants were using the walker as an everyday walking aid. Crutches, walking sticks and canes were also mentioned as aids for walking. Other aid equipment mentioned were shower chairs, safety rails, shoes with spikes, picking aids, sock pullers, raised toilet seats, automatic gears in car, support hoses, and shopping carts.

*Pitäs olla isompi tää (rollaattori). Mää oon koonnu siihen tavaraa, et se ei nousis, ku ne on vähän hepposia...****This should be bigger (the walker). I have piled up stuff on this so it wouldn't take off, because these are so lightweight.*** *[P1:80]*

Ja suihku. Nii ku mulla sillä alussa kodinhoitaja et heeei sähän kaaut, mä sanoin et kuule mulla on näin iso kuule vessa nii mä opettelin sen suihkussa käynnin, vessanpytylle mä otan ja pesen takapuolen. Ja sitten mä siirryn suihkutuoliin niin niitä ei voi antaa pois. Ja tuota sitten mä se vaan pesen ja kärry on onneks, ei mitään nii hyvää oo kun tuo vessa, se on, tää on hyvä siellä. Vaikka tuota en mä sitä aina tarvi sinne, mut mä veän sen sinne suihkun luo ja mä otan tangosta kiinni, mä kaiken päässä aattelen et miten mä teen miten teen…Niin mä näytin sille miten mä teen…Että tääkin auttaa, se on jotain voimistelua seki. ***And the shower. In the beginning I had a housekeeper and she thought I was going to fall. I told her that I have a big bathroom so I practised showering by myself. I wash my backside on the toilet and from there I proceed to the showering chair. So, that one I cannot give away. And then I just wash myself, and luckily I have my walker. That bathroom is just great, the walker works fine there. I don't always need it, but usually I pull it close to the shower and crab***

the rail. I imagine everything in my head before I do it… So I showed her how I do it. And this all helps too, it's like exercise. *[P1:72]*

Mut kotona sillon täällähän sitä rollaattorilla sisälläkin kulki alkuun ihan ei sitä voinu keppien ees ne anto niinku kaks keppiä, mutta mut sit mä huomasin että rollaattori on paljon tukevampi ja parempi kävellä… …Mut kyllä mä menen kun mä ulos lähden niin kyl tota kyllä mä varmuuden vuoks otan kepin. On se, paitsi sillon kun mulla on tommonen vetokärri niinkun ostoskärri niin sillon mä en tartte ku se on vähän niinku tukee samalla tavalla. ***But even indoors at first I used the walker. They gave me two crutches, but I noticed that the walker is much sturdier and it's easier to walk with that… But when I go outdoors I take a cane with me just in case. Except for when I have my pull-cart, my shopping cart, I don't need one because that gives me same kind of support.*** *[P4:27]*

Monetary resources were mentioned as barriers of getting more functional aid equipment or some services that could support living at home or being more physically active.

P1: Pitäs olla isompi tää (rollaattori). Mää oon koonnu siihen tavaraa, et se ei nousis, ku ne on vähän hepposia. Ei ne anna kahta! Mun pitäs ostaa tämmönen itelle ja sit sais sieltä semmosen millä mennään oikein.. mitä mä oon nähny tuolla, että ne menee niillä isoilla kärryillä. ***This walker should be bigger. I have piled stuff on it, so it wouldn't lift, because they are so lightweight. They will not give me two! I should buy one of these for myself and then they would give me one of those, the kind that I've seen people use. One of those big carts.***
I: Joo. Eli rollaattorin kanssa nytte ootte liikkunu, mutta ulos ei uskalla mennä tämän kanssa? ***So, you have been using a walker but are afraid of going outdoors with this?***
P1: Nii! Tällä pienellä. Tää on ihan turha tää tämmönen. ***Yes! With this little one. This is useless.****[P1:77]*

Sais sen ison kärryn! Tämä pitäs sitte kai ottaa.. Ne ei anna mulle! Pitäs ostaa ite... Ku mä oon kattonu, ne jotka mennee tuolla ne ja isoilla kärryillä, niin se on TUKEVA. Sillä pystyy kaupastakin vähän tuomaan ja. ***I wish I could get one of those big walkers! They would take this away. They will not give me one! I'm supposed to buy it myself. I have seen people walk out there with the big carts and they are so STURDY. They can even bring items from the store with that.*** *[P1:105]*

Kato, ei kodihoitajatkaan, kun ne käy... ne ei oo nyt mulla käyny... Niin ne roskat nyt vie, mutta mää olin kaikki aamupalat ja semmoset tehny. Että sinänsä. Mä aattelin että se on ihan turhaa maksaa niin paljo. ***The housekeeper hasn't been coming lately. They would take the trash out, but I make my own breakfast and all that. I thought it's pointless to pay that much.*** *[P1:82]*

Onhan tuolla uimahallissa siellä niitä laitteita ja kaikkia, sinne on hirveet jonot ja maksaakin varmaan, en tiiä kuinka paljon. On se tuo rahakin aina mielessä, ennen kun mitään uutta aattelee, niin ei se taho riittää, kun ei eläkkeet oo kovin suuria, ku ei ollu palkatkaan suuria. Nii se on vähän semmosta. Naisvaltane ala sekin nii se on vähä se naisen raha siellä, sielläkin pientä. ***At the swimming facilities they have all that gym equipment, but the lines are long and it costs, I don't even know how much. I do think of money before I start planning anything new. I tend not to have enough as the pensions are not that large, as was not my salaries. That's how it is. A predominantly female profession, so the money doesn't pour in.*** *[P2:64]*

Having functionally appropriate home environment with aid equipment, and supportive services facilitated being active in the immediate environment. However, there were aspects in the immediate environment of the participants that challenged physical activity. Some of the barriers were related to the interior or use of space in the homes of the participants. More often the barriers of physical activity and participation were found in the immediate surrounding environments outdoors.

Tuo on kauheen paha ihan tuo ulko-ovi, se on painava. Siitä on kyllä paha päästä… tässäkin on vanhoja ihmisiä, laittasivat semmosen napilla pantavan oven, mutta en mä viiti sannoo, ku en mä tiiä kuinka kauan itte oon tässä……No se on se ovi siellä, onhan tuolla alhaallakin ja onhan tässä hissi tietenkin joka vie, mut sit kun lähetään ihan sinne ulos. Niin se on aika painava, siinä voi tämmösten kärryjen kanssa jäähä väliin. ***My main door is terrible, it is so heavy. It is difficult to use it. There are old people living in this house. They should install one of those automatic doors with just a button to push. But I don't have the nerve to tell them, because I don't know how long I will be living here……Well, and the door downstairs. Of course we do have an elevator, but to get out of the building. It is fairly heavy. I might get crushed with this walker.*** *[P1:76]*

AINOA mikä mulla ottaa, niin tuolta alaalta... alaalta ottaa niinku marjoja (näyttää pakastinta alhaalla). Ku on niin lyhyt tuo. Mä otanki nyt. Mää koitan mennä näin... kun tää on niin lyhyt……No, mä oon jakkaran tohon, pienellä jakkaralla istunu. Katokku tää puttoo melkeen heti alas. On se puonnukki. ***The ONLY thing is that it's hard to reach down, reach down there to get berries (pointing the freezer). Because that is so short (the picking aid). I will take them now. I try to do this… because it's so short… … Well, I will move the small stool here, and sit on it. Look, this here falls down almost immediately. It has fallen before.*** *[P1:50]*

Tietysti jos menee tuota rollaattorilla tää on kaikkein pahinta kun tästä lähtee tonne nii se on aina ylämäki (nauraa)…Ja mul on aika tuota hankala kun mä pääsen tuonne kirkkopuistoon ja siel on tasasta nii kyllä mä sitten siellä kävelen, mutta mutta kun on se noitten keppien tai rollaattorin kanssa rollaattorin kanssa nyt vielä mutta kepin kanssa ja muuta jos on vielä kantamuksia ja muuta nii. ***Of course if I take the walker, the worst part is when I go that way, it's always uphill (laughing)… And it is challenging to me. Once I get to the park and the ground is flat, I'm ok with walking. But with these crutches or the walker it's quite, well maybe if I didn't have anything to carry, it would be ok.*** *[P4:24]*

No, tää ympäristö nyt ei oikein innosta huvikseen kävele-kävelemään tuolla. Kun pääsis kauppaan ja ja asioita hoitamaan niin. Se riittäs jo. Tässä tuo mäki on aina jos mä lähen kaupun-keskustaan päin, niin mäki vastassa, jos mä tuun keskustasta kotiinpäin, niin on mäki, harju, mäki vastassa (nauraa). Mutta eihän se nyt pitäs mitään estettä olla, mutta se ainakin hidastaa. Mutta näin päin kun kävelee, niin sitten on tasasempaa, niin kun kauppaan on aika tasanen tie ja tuohon postiin ja ja siel on kampaajakin samassa, lähellä ja tää, pitää aina käyä tukkaa leikkuuttamassa. ***Well, this environment doesn't really inspire for a recreational walk. I wish I could go to the store and run some errands. That would be enough. I always stumble upon a hill on the way to the city centre, and when I come back home I stuble upon a hill, a ridge there, a hill again (laughing). It shouldn't be a barrier, but at least it is a speed bump. But if I go that way, it's much flatter. The way to the store and the post office is smoother. And the hairdresser is there too, because I need to have my hair cut.*** *[P2:55]*

As discussed earlier in chapter 6.2.2, weather as barrier to physical activity was mainly related to fear of falling. Some participants avoided going outside or refused to engage in outdoor tasks of their home-rehabilitation program during wintertime when the roads and yard were icy.

No roskajuttu! Semmonen! Ei tostakaan mikkään kauheen helppo oo lähtee. Mää jo ite suunnittelin, että mä menisin sitä katukäytävää näin suoraan... ettei autojen välistä... Siitä kääntysin siihen... Mut en lähe näin liukkaalla! En lähe! ***Well, the trash! That! It is not easy to go there. I had a plan to walk straight through the passage and not to go around the cars. And the turn there… But I'm not going to go when it's slippery like this! I just will not!*** *[P1:17]*

L sitte patisteli kanssa et mun täytyy lähteä ulos mut sillo oli juuri ne oikein roskakelit ja muut mä sanoin et minä en kuule lähe ulos ollenkaan tonne vaikka kuinka haluaisit…Että minä kävelen tääl, mul on iso huoneisto nii minä voin kävellä täällä ihan sen määrän mikä tarttee……. Ja ku se oli sehän oli hirveen liukasta yhteen aikaan ja sattu juuri se aika sillon olemaan että……. Että nyt on ihan toista kun on sula maa. ***She urged me to go outdoors, but at that time the weather was awful, so I told her that I am not going out there no matter how much you want me to go… I will walk indoors. I have a large apartment, I can walk here as much as needed……It was so slippery at the time, it was that time of the year… It's totally different now that the ice has melted.*** *[P4:21]*

6.2.6 Healthcare related factors

The participants of this study described healthcare related barriers that were perceived to hinder the rehabilitation process. The healthcare related barriers of rehabilitation that unfolded in this data set were limited access or delays in healthcare services, lack of received information, and perceptions of not being heard or lack of self-determination.

As discussed previously, the participants had multiple health concerns in addition to the intake criteria of the ProPA -program. Some participants needed multiple operations and the healing process was always smooth. Four of the five participants reported delays in care and perceptions of limited access of healthcare, which influenced the rehabilitation process.

Sekin kuule jäi sillai, että mää oisin voinut valittaa siitä, kuule ku ei tullut kutsua. Ja mää kuule makaan täällä kuule ja ootan ja, hiki päässä ja tuota... Mää viimein soitin sinne. Mää, että: "Missä se viipyy, että munhan piti päästä jälkitarkastukseen?" Ne, että: "Anteeks.." (hetken hiljaisuus).. Sit mää pääsin ja sit se alkoi se toinen leikkaus. ***I could have filed a complaint, because I didn't receive a call. I just lied here sweating and waited. Finally, I called them. I asked: "What's the delay about? I was supposed to have my post-release control." They said: "Sorry." (a moment of silence) And then I got in and had the second operation.*** *[P1:22]*

Ja sitten tää toinen polvi vaan se, mä sain odottaa kauan pääsyä sinne leikkaukseen, oli niin huono, et ei oikein kärsiny tällä polvella astua enää yhtään, kepin kanssa sitten vaa jotenkin pääsin vähän eteenpäin. ***And this other knee, I waited for the operation. It was in such a bad condition that I couldn't bare to take a step. Somehow, I fidgeted around with the cane.*** *[P2:17]*

Tähänhän sitten tuli heti terapeutit siellä, että pitää liikkua ja mä aattelin et mun pitää sitten ja selvitettiin se niin, että kaikki liikunta nii mä sitten se niiku lähti niiku paranemaan mut sitten se rupes niiku huononemaan yhtäkkiä se mä sit kärsin sitä joku neljä ja puol kuukautta, sit mä aattelin et ei tää näin voi olla että ku on ja ja hakeuduin lääkäriin ja siel sitten kuvattiin kuvattiin ja todettiin, et siel on ruuvi noussu sieltä ööö puoltoista senttiä millä oli nämä ja se niiku repi mun lihaksistoa ja sit ne päätti et otetaan ne kaikki romut sieltä pois ja ja no eihän se oli kauheen kipee sen jälkeen kun se oli nii sitten ne katso oliks se vajaa viikko kun leikattiin vielä uudelleen ja laitettiin proteesi ja tämä on sitten tää proteesi on kyllä öö sekin oli alussa vähän kipee, mutta selkeesti näki, että se on nyt niiku parempi parempi ratkasu, että ja se on alkanu tämä lonkkaproteesi se on nyt oikeestaan parantunu. ***The therapists came and told me to get moving. So, I figured that I have to start doing that, and we made plans about the activities. At first, it began to heal, but after a while it started suddenly getting worse. I suffered with it for about four and a half months. Then I decided that it was enough. I went to see a doctor and they x-rayed it and discovered that a screw was detached and was tearing on my muscles. They decided to take all the junk out and after that it hurt terribly. After a week they ended up operating again and they placed a prosthesis there. That hurt afterwards, too, but it was clearly better. This hip prosthesis is finally just about healed.*** *[P3:13]*

Kun täs on niitä monivammoja, mun pitäs niiku päästä lääkäriin tai muuta, kyllähän lääkäriin pääsee aika nopeasti, kun on ihan semmonen akuutti, kyl mä oon yleensä saanu samana päivänä sen lääkärin, jos mul on ollu semmonen ihan selvä systeemi, mutta nyt kun ei oo ihan niin akuuttia, niin ei ei niin kun tahon taho, mutta niinku jotakin näihin turvotuksiin pitäs saada semmosia jotain lähetteitä tukisukkajuttuun tai muuta niin lääkärille pääsy on niiku öö ja voi sanoo, että mä oon sen verran aktiivinen ***With these multiple disabilities, I should be able to get a doctor's appointment. Well, it is possible to get an appointment pretty fast if there is something acute. In those cases I have been able to get an appointment the same day. But they have this system where it's difficult to get an appointment with a physician for this swelling or a referral for support hoses. And I can tell you, that I'm pretty active!*** *[P3:25]*

Kai niit on niin paljon, et ne on niin kyllästyneitä. Kyllä mullakin semmonen kokemus oli, että mä kävin lääkärissä ja omahoitaja sano, että hän pistää sille viestin, että vähän pitempi aika mulle kun on niin paljon asioita, mä katon kolme minuuttii ja sitten heitti mut, ei se yhen asian se anto vaan. ***Maybe there's too many of us and they get frustrated. I had this experience of going to the doctor's and my nurse had promised to recommend that I get a longer appointment because I have so many issues. I checked, it was three minutes, and I was out of there. I was given a chance to talk about one issue.*** *[P5:16]*

Perceptions of not been listened to by healthcare professionals about issues like comorbid illnesses and pain were discussed in chapter 6.2.1. In addition to this, participant 3 expressed astonishment over the experience of not receiving enough information concerning his own healthcare to be able to understand and prepare himself or to make choices. He perceived a clear lack of self-determination concerning the decisions that were made over his health. He

reflected that poor transfer of information between healthcare professionals may have influenced these issues. Even though some of these the healthcare related factors may not directly affect rehabilitation or physical activity, it can be assumed that they can act as indirect barriers through emotional and motivational ramifications.

Täs on niiku aika jännä jännä juttu, mä mietin nii nyt mul tuli kirje tosiaan keskussairaalasta, että että mul on viies päivä ens kuuta nii on pallolaajennusoperaatio tuonne jalkoihin. Se on aika jännä juttu, niiku sanotaan nykyään puhutaan paljon valinnanvapaudesta, mul ei oo kukaan kysyny, et haluunks mä ees tuommosta……mutta nää oon niiku kaikki tapahtunu niiku oikeestaan öö tämä lonkkaleikkauskin nii enhän minä vasta tulin tajuihin et mä oon jossakin sairaalassa……Joo enkä mä oon koskaan valmistautunu, en mä tienny ees mikä lonkkaleikkaus ja sit on tulee joku oon sairaalassa ja siel on ööö henkilökuntaa siel on niil on vihreitä asuja jollakin on valkonen jollakin on sininen ja ja jotakin mä kysyn nii se se se osoittautukin et se on siivooja, ei hän voi nyt antaa mitään että tehdä tai muuta. Oli on niiku siivooja on minussa niiku jos ajatellaan hoidon kannalta nii ois kyllä kiva kiva tietää vähän kuka on mitäkin kuka hoitaa mua ja niiku ja kuka joskus kysyy niin se onkin joku ruuvaaja ja et ne on niiku sit ku aika aika jänniä juttuja, kyl minusta siinä siin ois kyl semmosta petraamisen varaa. ***This is astounding. I received a letter from the hospital, and it stated that I have an angioplasty for my legs next month. It is staggering, how nowadays they talk about freedom of choice, but nobody has asked me, if I want an operation like that. Everything just happens. Like this hip operation. I regained my consciousness in the hospital……I never got to prepare, I didn't know anything about a hip operation. Then in the hospital there was personnel with green and white and blue clothing, and I asked someone and it happened to be a cleaner and couldn't help me. It would be nice to know who is who and who is caring for me. These are baffling situations and my opinion is that there is still much to improve.*** *[P3:17]*

Niin tääkin tuli tää magneettikuvaus jalkoihin mikä tuli niin varjoainekuvaus ja muuta nii se tuli taas, en mä siitäkään taas tienny ja mä luulen et sen sit ne varmaan sitten taas tämä radiologi on varmaan luullu, että siinä on tiedossa ja se on niinku lähettäny eteenpäin ja on menny nyt sitten tuonne toimenpideosastolle ja olen nyt menossa. ***So, I received this call for MRI and angiography, and I didn't know about those either. I believe that the radiologist thought I knew and referred me to the operation.*** *[P3:32]*

Oli tämmönen ambulanssikokemuskin oli tässä mul, mä olin tuossa makasin lattialla selälläni kun kaaduin ja tivas et mistä koskee, mistä koskee, mä en osannu sanoo mistä koskee, kun joka paikka oli mä olin puolitajuton, en lähetä sinne ambulanssia sano mistä koskee…En mä tiedä sitten miten se tuli, mutta mä menetin kai tajuntani siinä vaiheessa. Mut joku tämmönen vähän oli tympeen tuntunen et piä suus kiinni ja pistä se ambulanssi. ***I had this ambulance experience. I was on the floor on my back after a fall and on the phone they kept asking me where it hurts. I couldn't answer them, because I was so out of it. They weren't going to send me an ambulance before I told them where it hurt. I don't know how it came because I passed out. I would just want to tell someone so rude to just shut up and send the ambulance.*** *[P3:44]*

6.2.7 Rehabilitation related factors

Multiple barriers and facilitators of physical activity oriented rehabilitation, that were directly related to the procedures of rehabilitation, emerged from the data set. The personal and work approach of the rehabilitation personnel can have a facilitating or hindering effect on the adherence to rehabilitation. The amount, flow and timing of the visits can likewise be considered as a barrier or a facilitator. The rehabilitative exercises can be viewed as too difficult or appropriate and motivating. The goals of rehabilitation can be set in ways that enhance motivation or conversely create perplexity. The perceptions of not being heard or the lack in transfer of information between professionals also emerges within the rehabilitation related theme. Altogether, the experiences of different participants over the barriers or facilitating factors vary which corroborates the significance of individual tailoring of home-based rehabilitation.

The personal work approach of the rehabilitation personnel appeared as an important determinant of adherence to the exercises. Different participants valued and benefitted from different work styles. Trust was an important motivational factor like discussed in chapter 6.2.2. It takes time for trust to develop. Similarly, time and will to listen and learn is needed for the rehabilitation professional to figure what kind of work approach motivates the client. Some of the participants had experience with different rehabilitation workers also outside of the rehabilitation program and could compare different personal and work approaches of the professionals. Participant 3 expressed a view that connecting with another person cannot be learned. Whereas, participant contemplated on the importance of telling the professional certain aspects of one's personal history could be beneficial.

Se luottamus oli hirveen hyvä. Ja suhde katokku, hän niinku tuntee.....Ne niinku synkkaa, me synkataan niinku keskenään. Se niin paljon tuntee mua jo. Se silloin, kun mä tuin sairaalasta toisen kerran, ni silloinhan mä otin sen. Tai tytärhän sen hommas oikeestaan. Sehän on hirveen hyvä, ku sitte... Ei kaikkien kanssa suju! Mut kyllä tuota... Ja se fysioterapeuttihan oli kyllä nuori tyttö. (naurahtaa) Sehän sano, että: "TUOSTA MENET TONNE! Ja tosta ovesta sitte." Mä san, että elä... Ja sittenhän mä jouvuinki sinne toiseen leikkaukseen……Vaikka se on nuori ihminen, niin kyllähän mää nyt hänen kanssa tuun... Ja tuo muuten tuo K! Se on IHANA! Niin ihana ihminen, että kun sen näkkeeki, ni parantuu! (naurahtaa). ***Trust is great. The relationship, you know, she knws me…… It's like we are in sync together. She knows me well. I hired her after the second time I returned from the hospital. Or my daughter hired her. It's great, because…It doesn't work that well with everybody! But well, the physiotherapist was a young girl. (laughing) She told me: "JUST WALK THERE! And out the door." I told her no… And then I had to go to the second operation…… Even though she was a young person, I got along with her ok. Oh but K! She was LOVELY! Such a lovely person. You only have to see her and you will begin to heal! (laughing)*** *[P1:33]*

Se on vähän sitten taas sitten henkilökysymys et et miten osaa lähestyä ihmistä ja jos joku joka ei osaa niin se ei osaa ja vaikka sitä kuinka kouluttais nii siit ei tuu yhtään mitään. ***It's like a person thing. If one doesn't know how to get a connection with another person, then they just don't know. It doesn't matter how much you educate them. It just won't work in a situation like that.*** *[P3:67]*

Kaipa heiät on koulutettu osaamaan ja tekemään……No, pitäskö sitten fysioterapeutillekin ensimmäiseksi kertoo koko elämäntarina (nauraa)……Nii, ainakin kaikki vaivat taikka tommoset, jotka vois haitata tai olla haitaks. ***I guess they are educated so they know what to do… Well, should I be telling my life story to the physiotherapist right off the bat (laughing)…… Or at least all the ailments and things that might hinder it.*** *[P2:61]*

The skills of listening, observing, and asking the right questions seem to be essential for a rehabilitation professional. For example, the continuum of assertiveness is to be used diversely with different clients. Presumably a warm individualized approach could best be learned with enough time to get to know the client and with learned skills to do functional behavior analysis on individual reinforcement contingencies.

No mul on mul oli niiku oma oma oma tahto siinä, että mä osaan, oisko joku voinu kysyä sitä enää tai vaikuttaa……Ei voi sanoo et mene vaa tai ole menemättä et se ei vaikuttais mua yhtään mihinkään. ***Well, I have the will of my own, and I have a tendency, well I don't know if anybody could have affected that… I can't just be told to go or not to go. That would have no effect on me.*** *[P3:39]*

Kyllä se teki mun kanssa. Ja sitten sillä (fysioterapeutilla) on semmonen tyyli, että: "Tosta ulos. Tosta ulos." Aina vaan siis käveleen sinne. "Ja tota käytävää meet." Mitä tuossa käytävässä kuule liikkua, ku ihmiset tullee sieltä. Ei se nii helppoo oo. ***She did perform them with me. And she (the physiotherapist) has this way of saying:"Out from here. Out from here." She always wanted me to walk out of here (the apartment). "And just walk that hallway." Why should I walk out there in the hallway, when there's people out there? It's not that easy.*** *[P1:97]*

Niin, hän ei tuota koskaan moittinut. Mut minun mielestäni hän ois voinu jotenki reagoida siihen, kun tuli uudestaan ja näki, että mä en ollu yhtään paremmaks tullu. (nauraa) Olis jotenkin vähän ollu vihanen mulle tai (nauraa). Oisinko mä yrittäny sitten enemmän? ***She never criticized me. My opinion is that she could have somehow reacted, when she came back and noticed that I wasn't getting any better. (laughs) She could have been angry or something. (laughs) Would I have tried more in those circumstances.*** *[P2:42]*

P4: No niinkun mä äsken sanoin, niin ois pitäny mua vähän komentaa ja moittia… Ihan suorastaan.
Like I said, I should have been commanded and scolded a bit… completely.
I: Okei, aatteletteko, et sitten ois motivaatiota tullu? ***Okey, do you thing that would have moitvated?***
P4: (nauraa) Nokun en tiiä, kun ei sitä tapahtunu……. Jos ois ollu tutumpi ihminen, se ois varmaan sanonu mulle, et nyt teet niin ja nostat sitä kinttua, mutta kun (nauraa)……. Hän oli niin hienotunteinen. ***(laughing) Well, I can't say, because it never happened……If the person was more familiar, she probably would have told me to just go on and lift my paws, but (laughing)……She was so considerate.*** *[P2:41]*

Limited visits from the rehabilitation personnel were considered a hindrance to the process while some of the participants expressed that more visits could be of use.

En mää muistakkaan, se jäi kuule se väli, ei se niin monta kertaa kerinny käyä (fysioterapeutti). ***I cannot even remember. There was some time between. She didn't visit that many times (the physiotherapist).*** *[P1:57]*

No en mä oikein osannu odottaa mitään, kun mä en tienny, tää oli mulle niin uutta. Uutta ja mä niiku vähän niiku odotin, että öö niinkun sanotaan olin nyt sitten … terveyskeskuksen vuodeosastolta tai sieltä kotiudun tai muuta, mut se se niinku tuntu, että öö et se niinkun loppu siihen, et siihen täällä kävi kerran kerran fysioterapeutti, sano tuo, sitten kerroin tietenkin, et mä oon tämmösessä tutkimuksessa no sit se on vähän et no ei enää tarviikaan sit……Et millasta ois ollu, jos mä oisin saanu ehkä sieltä jonkun toisenlaista opastusta siihen tähän liikkumiseen ja muuta. Se on semmonen aika se on semmonen pieni nii kyl se on semmonen psyykkinen tuki sitten, kun on vaa yksin, että keskustele tuon television kautta. ***I didn't know what to expect, it was all so new to me. All new and after I returned home from the hospital I kind of expected, or it felt like, that it ended right away. A physiotherapist visited once and I told that I was taking part in this research project, so they figured I didn't need it then……I wonder what it would have been like, if I had received different kind of instruction on mobility from them. It just is, the psychological support is (needed), when you are here alone and having a conversation with the TV.*** *[P3:36]*

No, jos ajatellaan et sitten ehkä sitä määrää vois jonkin verran olla, en mä tiiä onks se tässä tutkimuksessa, en mä tiiä jos tätä tutkimusta ei ois ollu, nii onko se oisko se ollu se määrä ene-enempi tai vähempi. ***Well, I think that the amount (of visits) could be increased. I don't know, what the situation would have been if I wasn't taking part in this research study. I don't know if the amound would have been smaller or bigger.*** *[P3:41]*

Jos varmasti semmosella, jolla ei ollu muuta kun tämä vaan tämä yliopiston nii nii sillon ois voinu olla ehkä vähän useampi, mut kun mulla nyt sattu samaan aikaan nämä nii. Ja sitten ku ei enää hän tullu tänne kotiin nii sittenhän mä kävin siellä siellä siellä Väinönkeskuksessa et tota niin kuntoutuksessa. ***For sure someone, who only had this university program, could have used more (visits), but I had the other programs at the same time. And after she stopped visiting, I started rehabilitation at the rehabilitation centre.*** *[P4:34]*

In addition to the limited amount of home visits, the flow and timing of the rehabilitation visits were discussed in the interviews. The longer intervals between visits after the first weeks of rehabilitation were questioned and an extended active home-visit period was desired.

Niin siinä oli alussa ne aika aika hyvä semmonen aika useankin niinku ryhmiä se sitten sehän en mä tiiä monta kertaa siin oli alussa käytiin aika useasti ja sitten loppuja oli pitkä pitkä ja sitten joku vaan puhelin puhelin et siinä niinku tuntu, että oisko se jaksotus vois olla hieman ehkä toisenlainen, että……Vaikka vaikka niitä alkuja niitä oli aika en mä tienny, en mä enää muista kuinka se kuinka useesti se oli, mut se oli aika useesti siinä alussa, nii niitä vois vähän niinku ehkä pidentää ja se jatkuis se se aktiivikausi niinku et jos sanotaan, että tämä aktiivi oli kuus viikkoa, niin vois olla et jos

se ois vaikka kymmenen viikkoa. ***In the beginning it was pretty nice, there was like a group of visits and the towards the end there was a long time and after a while only a phone contact. So, I felt that maybe the sequencing could be a bit different. Even though in the beginning, I can't remember how often it was, but it was fairly often, so maybe that active period could be stretched out. If now the active period was six weeks, then maybe it could stretch all the way to ten weeks.*** *[P3:35]*

No, se ei kauheen kauaa kerenny käyäkkään, ku sit se jo alko kesäloma. Se lähti (toiseen kaupunkiin). Ja se jäi multaki sitten kaikki kesken. Mää vaan ootin sitä sairaalaan pääsyä, että... ... Niintuota, se sitte jäi. Mä olin sitte koko kesän, ettei ollu minkäänlaista. ***Well, she didn't visit too many times before the summer vacation. She went to (another city). So, my situation was pending. I was waiting to go back to the hospital… So, it was interrupted. I didn't have anything through the summer.*** *[P1:101]*

Mulle tul niin pitkä väli, että koko kesä melkein. ***There was a long time between. Almost the whole summer.*** *[P1:102]*

Some of the instructed exercises in the home-based rehabilitation were considered difficult or even impossible to perform which could become a barrier to adhering to the rehabilitative tasks. However, predominantly the exercises were perceived as beneficial and even motivating and fun.

Mutta se on yks asia, mitä mää en pysty tekkeen, vaikka jotenki aina... "Kun sinä seisot, ni tee lantiolla näin." Mutta mulla pyörii koko selkä. (näyttää liikkeitä)……Mä en tiiä, ku mä... se aina mulle sannoo: "Vielä enemmän!" Sanoo, et: "Tässä näin oot maton päällä." (näyttää liikkeitä) Tämä tietenkii oon hyvä. Ja venyttäminen. Ja sitten tuota, tässä jos haluu tuota kipeempää lonkkaa pitää, ni seisominen. (näyttää liikkeitä) Ja tämä... Tätä mä en saa. Se jotenkin mua pyöryttää koko lantio. Pitäs tää lantio... mulla menee kiertoon……Keho ei tottele! Se on vanha! (naurahtaa) Tai en minä myönnä sitä! ***There's that one thing that I can never perform. "While standing, do this with your pelvis." But I keep moving the whole back. (showing movements) …… I don't know, she always told me: "More! Right here on top of the mattress." (showing movements) This is a good one. And stretching. And if I want to do something with the aching hip, I need to stand. (showing movements) And this, this one I can't do. My whole pelvis rotates……The body doesn't listen! It's old! (laughing) But I will not admit that!*** *[P1:84]*

Niin, en mä tiedä kuinka paljon ne ottaa huomioon, jos ihmisellä on vaivoja… Joskus on neuvottu mulle semmosia liikkeitä, mitä must tuntuu, et tää on ihan mahoton tehä… Saman samaa tarkottavan liikkeen voi tehä sitten helpommallakin tavalla, mutta mä oon vaan ihmetelly, miks mulle on niitä vaikeita neuvottu sitten… Sit ne jää tekemättä varmasti, kun jos ne on on niin semmosia…Kivulloisia suorastaan. ***I don't know how much they take into account if a person has maladies… Sometimes I have been instructed movements that feel impossible for me to do… There are easier ways to perform the same movements, so I have been wondering why they direct me to do the difficult ones… For sure they will be dodged, when the they are so… downright painful.*** *[P2:60]*

No lähinnä ne oli sitä semmosia et jos neuvoja ajatellaan, niin kyl siinä neuvottiin millanen pitää olla joku asento selkään, ryhti. Että mikä on niiku väärin väärin, kannattaa olla näin ja näin ja sitten niinku saa siitä sitten sain sen opastuksen, mitä mikä oli tietenkin tarpeen. ***Well, if you think about***

the instructions, it was advice about posture of back. Advice about what is a wrong way and what positions are useful. I received instructions for that, and it was necessary. *[P3:40]*

No kyllä mä hirveen hyviä liikkeitä sain…… Ja just tää L oli neuvonu niitä nii sitten mä rupesin jatkamaan enemmän…….Ja yks hyvä liike oli semmonen, että kun tohon jalan pistää niinkun tämän nilkan, niin tohon käsinojaan. Ja seis- yhellä jalalla seisoo ja kumartuu näin kyllä ne kiristyy. Joo et nyt mä oon sitä ruvennu jatkamaan sitten kans. ***Well, I did get great exercises… … And once I got the advice, I started being more active……One good exercise is to lift this ankle on the armrest. And then when standing on one foot and bending, they stretch. So, I have kept doing that one, too. [P5:23]***

No lähinnä nyt sitten kun todettiin nää kiristyneet lihakset ja sain oikeet liikkeet niihin nii se on kyllä vaikuttanu paljon. Et kyl siellä hyviä ohjeita tuli ihan, vaikka mä nyt ite siellä kuntosalillakin soudan ja kaikkee, että. ***Mainly, it was the strained muscles, and once I got the right exercises for them, it has really made a difference. So, I got some good advice, even though I have also been rowing at the gym myself.*** *[P5:38]*

The perceptions of not being heard have emerged across multiple themes. Participant 1 especially expressed multiple times her efforts of telling both healthcare and rehabilitation workers about her pains and comorbid maladies and felt she was not heard. She acknowledged that it was a problem that the rehabilitation worker did not have all the information needed to plan a functional intervention. The lack or inefficacy of information transfer between health and rehabilitation personnel can be seen as a problem like discussed in the previous chapter. Co-operation between healthcare and rehabilitation professionals and creating legally and ethically sustainable models for information transfer could facilitate planning more individualized rehabilitation programs.

Mutta kun ne ei uskonu mua, että mulle sattuu muuallekin, että mä en jaksa niitä tehä! Mut sitten ku tuo L kävi täällä, sekin kävelytti, vaikka se ei ollu vielä luutunukkaan koko... ja se sattu. ***But they didn't believe me, they didn't believe that I was hurting elsewhere and don't have the energy to perform them (the exercises)! But when she came here, she had me walk even though the whole thing wasn't even ossified… and it hurt.*** *[P1:32]*

Kyllähän hän (fysioterapeutti) ihan hyvä tyttö on, mutta mää puhuin, että tuohon ja tuohon sattuu, niinku niihin entisiin vaivoihin. Niinku tää nilkkaki, tästähän varmaan pitäs ne mutterit ottaa pois. Niin...Kyllä se kato, se lähti tästä murtuman pohjalta. Eihän se nyt tiiä, ku ei oo itekään lääkärin lausunnot oo siitä, että mun selkä on MUUALTAKI kipee. Ni se oli mentävä. ***Of course, she (the physiotherapist) was a good girl, but I told her that I hurt here and there from my previous maladies. Like this ankle here, they should probably take the screws out. Yes… But she just focused on the fracture. She couldn't know, because she hasn't seen the doctor's report stating that my back hurts in OTHER PLACES. That's how it goes.*** *[P1:56]*

When asked about the goal of rehabilitation and the process of setting goals, the answers of the participants sounded indefinite. Some of the participants did not remember setting goals for their home-based rehabilitation process together with the project worker. This could lead to vagueness of the function of rehabilitation which could be considered a barrier to progression. However, for four of the five participants it was self-evident that they wanted to walk and be mobile again. The clarity of the intrinsic goal may function as a motivator for physical activity. Participant 2 remembered reconsidering goals with a project worker after some weeks of rehabilitation.

No, tietenki se, että kävely. Ja toimiminen sitte... aktivoi itteensä. ***Well, of course to walk. And activating oneself.*** *[P1:36]*

Että ei sen mulle väliä oo, että mitenkä mää nyt kävelen ja missä... Sehän on ihmiselle ihan... ja ennen kaikkee nää lihakset. ***It doesn't matter to me how I walk and where. It's just important… the muscles especially.*** *[P1:38]*

I: Kun työ niitä tavoitteita asetitte, niin niinni, saitteko työ ite tuua niitä toiveita, että mitä työ haluaisitte tehhä enemmän? ***When you were setting goals, did you have a chance to express your own wishes on what you would want to do more?***
P1: No emmää kyl sillai. Että mää on tehny kyllä, mitä on käsketty. ***Well, not really. I have been doing what I was told to.*** *[P1:97]*

*P2: No se oli tietysti se, että sitä polvea, polvea, pitää tehdä niitä liikkeitä ja sitä kuntoutusta, ettei se polvi jää jäykäks, eikä, eikä muutenkaan semmoseks hankalaks.****Well, it was undoubtly for the knee. I was supposed to perform the rehabilitation and the exercises so that the knee wouldn't remain stiff or otherwise troublesome.***
I: Joo, ja saitteko te ite toivoo jotain tavoitteita tai vaikuttaa siihen, että et minkälaisia asioita te haluaisitte pystyä tekemään? ***And did you have a chance to influence the goals and say what you would hope to be able to do?***
P2: No en minä muista, et oisko siitä mitään puhuttu sillon, sehän oli minusta selvää niinku itsestään selvää. Et pitää nyt sitä sitä jalkaa koittaa saada sen leikkauksen jälkeen nyt sitten taas niinkun normaaliksi. ***Well, I can't remember if we talked about it. To me it was self-evident. It was to try to get the leg back to normal after the operation.***
I: Muistatteko että, että laitoitteko te yhessä ylös … niitä paperille, et minkälaisia tavoitteita teillä oli? ***Do you remember if you wrote down your goals together?***
R: Kyllä me pantiin pari kertaa, oli se kuntoutus menny jo pidemmälle, niin sitten oli semmonen tavote, että kun pääsisin edes tuohon lähikauppaan käymään. ***Yes we did, couple of times after the rehabilitaton had been going on for a while. There was one goal for me to be able to go at least to the nearby store.*** *[P2:33]*

I: Asetettiinko teille tavoitteita tai asetitteko te yhdessä tuota nii tavoitteita, saitteko te vaikuttaa itse et minkälaisia, mitkä ne teijän tavotteet siinä hankkeessa on? ***Did you set goals together for your program?***

P3: No kyllähän mulla tavote aivan aivan selkeä. Mul oli oma tavote oli se, että mä kävelen, että mä en suostu siihen, että mä jään sänkyyn. ***Well, I had a clear goal myself. My goal was to walk. I wasn't going remain in bed.*** *[P3:37]*

P4: Ei mulla ollu mitää muuta odotuksia ku se et mä pääsen kunnolla kävelemään. Se oli mun odotukseni ihan joo. ***I didn't have any expectations apart from walking properly.***
I: Joo. Eli oliks se teidän tavote sitten siinä? ***So, was that your goal?***
P4: Joo joo, se oli tavote niin. En minä tiedä mitä mä muuta oisin tavotellu. Kun kuntoutusta siihen että pääsee hyvin liikkumaan. ***Yes, that was a goal. I don't know what else I could have been aiming at. Just rehabilitation to be able to be mobile.*** *[P4:20]*

No oikeestaan mä en odottanu mitään, mä katson. ***Well, I wasn't really expecting anything, just watching what it brings.*** *[P5:51]*

No en mä niitäkään tuota sillä lailla enkö mä kuunnellu kunnolla sitten että mitä tavotteita niillä oli sitten että, en muista ku me ei puhuttu siitä sen kummemmin. Kuhan mentiin ja oltiin ja keskusteltiin ja et se oli enemmän semmosta seurustelua ja sitten jumppaliikkeitä välillä ja. Että niinku he sano, että he muiden kanssa nii he liikkuu paljon ulkona ja muita muuta mutta kun mä en rollaattorii enkä mitään mä liikun ihan itekseni että. ***Well, I don't know if I wasn't listening. I can't remember what goals they had. We didn't really talk about that. We would just go on and have conversations. So it was more like conversations and sometimes some exercise. They told me that with the others they go outdoors a lot. But I don't need the walker or anything, and I'm active myself anyway.*** *[P5:24]*

Overall, individual tailoring of a home-based rehabilitation program is considered important. Taking time to know the client and tailor the program in different levels may facilitate adherence to rehabilitation.

Semmosta sanotaanko nuoremmil ihmisil on niiku rankempaa, et tää ottaa kyllä meidät sitten semmosta niiku kevyesti ja pitää paussia ja ja ja tuota aina tarpeen mukaan ja sitten siellä kun on kuntoutuksen nii siel on aina millä tavalla niitä painoja ja että näitä vastuksia aina lisätään kunnon mukaan sitte että millon vähemmän millo enemmän ja jos kunto kohoaa, nii aina niiku seurataan sit et voiko vähän enemmän laittaa. ***So, the younger you are the tougher the exercises. So, to take into account that we get to do it lightly and take breaks whenever needed. And with the rehabilitation, it's about how the weight and resistance is added or reduced according to one's condition. When one starts getting into a better shape, with an ongoing monitoring it can be decided whether to add some weights.*** *[P4:14]*

Tietenkin tärkeetä saada se niiku jos sanotaan potilaan mikä on se tarve ja sehän on aika lailla eri eri ihmisillä eri eri erilainen. Et toinen voi kokea joku kotikäynninkin et mitä se tänne nyt taas tulee. Ja toiset haluaa, et ois kiva käydä ja saada jutella……Et et se henkinen puoli on enemmän kun melkeen se fyysinen puoli. ***Of course, it is important to figure out the needs of the patient, and that varies with different people. While someone experiences the home visits intrusive, others hope for someone to talk to……So, the mental side of it can be even more important than the physical.*** *[P3:64]*

6.3 Discussion

The participants of this study perceived rehabilitation as being exercises and movement tasks to maintain mobility and muscle strength. The ability to stay mobile, to take care of oneself and everyday chores, to build muscle strength and to enhance motivation to stay active were considered as consequential benefits of rehabilitation. Home-based rehabilitation was characterized by the visits of the rehabilitation professional and having human contact was viewed as a valuable aspect of the home-based rehabilitation process. Having someone to give information in a new life situation and being able to ask questions helped dealing with uncertainty after an illness. Having medical aspects integrated into the process while tailoring the program and activities individually, were perceived as important and were desired.

Seven master themes related to barriers and facilitators of physical activity and rehabilitation emerged from the data set. In many of the subthemes the bilateral nature of the determinants of physical activity task related rehabilitation can be observed. Barriers and facilitators can be viewed as the negative (disability) and positive (function) aspects of the same determinant as described in the ICF model (WHO, 2001) as seen in Figure 2 of chapter 3.1. The master themes (Table 14) were labeled as physiological, emotional, and learned factors, and factors related to social support, the physical environment, healthcare, and rehabilitation. Figure 3 attempts to make a synthesis of these themes in relation to the ICF perspective of functioning.

There is a research gap concerning the perceptions of older adults with musculoskeletal injuries on their home-based rehabilitation experiences and perceived barriers and facilitators on physical activity tasks related to rehabilitation. Hence, the results of this study cannot straightforward be compared to previous literature. However, there are multiple studies that investigate the determinants of physical activity among ageing people as well as the benefits of home-based rehabilitation programs for older adults. In the systematic review and thematic synthesis of perceptions of older adults on physical activity participation by Franco and colleagues (2015), the following six major themes on barriers and facilitators were identified: physical limitations, motivation and beliefs, social influences, personal benefits of physical activity, access difficulties, and competing priorities (Table 5, p.11). Apart from the theme of competing priorities, all the themes from Franco et al. (2015) thematic synthesis can be viewed parallel to the themes emerging from this study, albeit the terminology and perspective slightly differs.

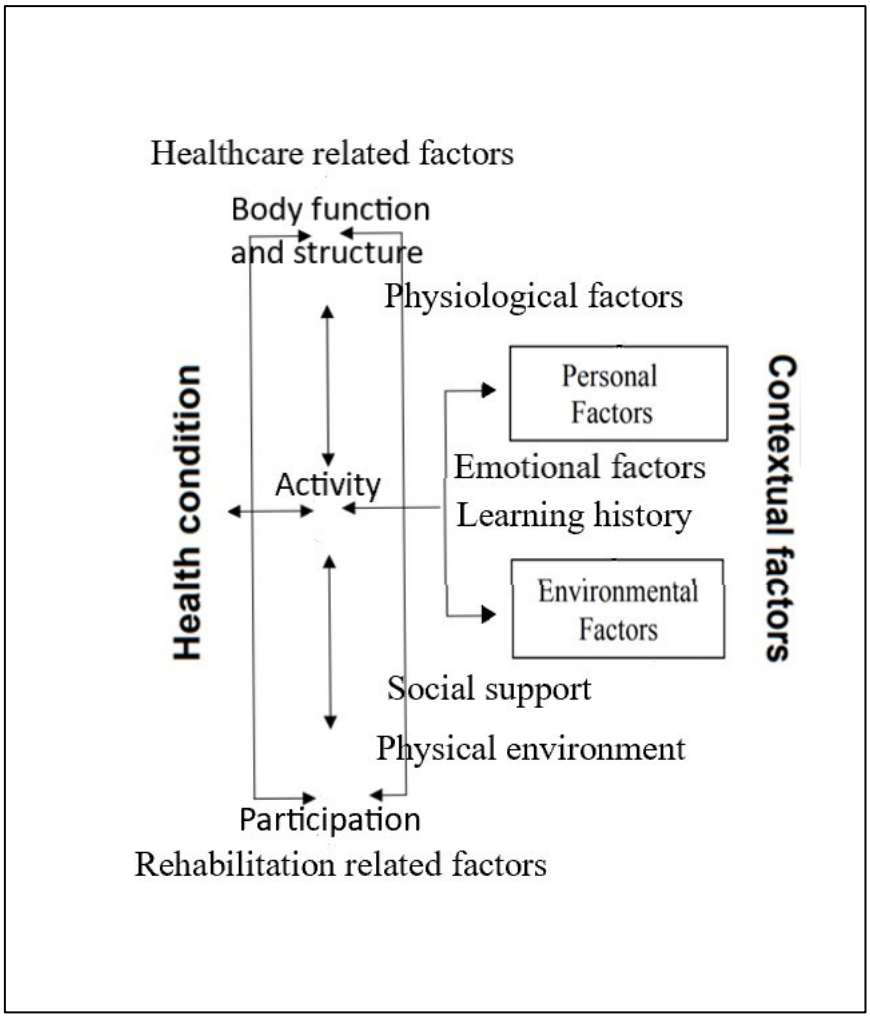

FIGURE 3. Synthesis of the determinants of participation in physical activity in relation to WHO (2001) ICF participation model.

In Orpen and Harris' (2010) study of perceptions of older patients over home-based interventions, the results showed that aiding equipment, timely visits, competence of the therapist, home environment and social support were perceived as influential determinants. In Robins and collegues (2016) study on perceptions of older adults on participation in group- and home-based falls prevention exercise, identified the themes of physical health, emotional, and environmental barriers. The current study of a home-based rehabilitation program corroborates the findings from both of the previous rehabilitation studies but extends the perspectives on barriers and facilitators further.

Franco et al. (2015) found that some older people fear that physical activity increases the risk of injury and associate participation to physical activity with pain. Comorbid illnesses are perceived as necessitating factors for inactivity. Correspondingly, previous and comorbid health problems and pain emerged as the most prominent barriers to physical activity and the rehabilitation tasks in the current study. However, this study focuses on home-based rehabilitation instead of only barriers and facilitators of physical activity of older people. In the current study, perceptions of not being heard by professionals strongly emerged across different themes. Many of the participants expressed perceptions that concurrent illnesses, pain and fears had been disregarded on some occasions by healthcare and rehabilitation professionals. In the interviews there were contemplation over how much comorbid health conditions are considered when planning and implicating a rehabilitation program. While Franco and colleagues (2015) suggest designing physical activity interventions that assist with management with pain and concurrent health problems, and planning educational strategies, the results of the current study suggest that listening and reacting to the concerns of older people over these issues is the first step for a well-planned intervention.

In the major themes of healthcare related and rehabilitation related determinants of physical activity oriented rehabilitation, the multitude of comorbid health conditions and the perceptions of them being disregarded, appeared clearly. It was experienced that the healthcare and rehabilitation personnel did not have a coherent perspective of the overall situations of the participants. If there is a lack of functional and ethically sustainable models of co-operation and information transfer between healthcare and rehabilitation professionals, the responsibility of transferring the relevant information lays on the client. This again can become a problem, if reverence for professional authority or the learning history of perceiving that professionals do not listen, prevent the client from disclosing the information that would be essential in planning an effective rehabilitation program.

In addition to the comorbid health conditions and pain, the social support factors were perceived as important determinants of rehabilitation adherence and physical activity by the participants of this study. Having a human contact during the home visits was considered as one of the most beneficial factors of home-based rehabilitation. More home visits from the rehabilitation personnel were desired, but the timing of the visits and the individual approach of professionals was also considered important. On the other hand, one interviewee speculated that some elderly people might stay more inactive in purpose to get more support. This perspective corresponds with Franco and colleagues' (2015) finding that dependence on

professional instruction can become a barrier for independent physical activity. The experience of the participant of this current study, that the more active and independent life was lived the less social support was received, was accompanied by a suggestion to reinforce independent activities with social support. This could be a noteworthy motion, since social support in different forms was perceived as such a significant motivator whereas loneliness was viewed as a barrier to physical activity.

Turunen and colleagues (2020), in their research of the ProPA -project, discuss the possibility that the most frail older people with multiple health issues and are recently discharged from the hospital would likely benefit from an extended and more frequently monitored intervention to improve physical activity and mobility. This position is consistent with the findings of the current study investigating the perceptions of the participants. Furthermore, Turunen and colleagues (2020) suggest that the high fear of falling reported by participants who live alone and are unable to go outdoors needs further attention. The emotional barriers like fears, shame and uncertainty clearly emerged from this data set. Fear of falling was the most apparent emotional barrier to PA with each participant reporting previous falls. Other antecedents to fear of falling were knowledge of other people falling and weather. As trust in professionals was perceived to function as an antidote to fears, the importance of psychosocial support on overcoming them was stressed in the interviews. Some extra time to listen and to discuss about the emotional barriers like fears, shame and uncertainty may enable participation and adherence to the physical activity tasks. Individually tailoring social and emotional support could be a means for this. Furthermore, advancing the development of effective models for multi-professional collaboration, and teaching rehabilitation professionals psychological techniques to assess functions of behavior individually and to advance behavior change, could enhance the efficacy of the interventions, as well as increase the perceptions of being heard and of self-determination.

The ability to stay active and mobile appeared to evoke enjoyment and perceptions of efficacy which further motivate to engaging in physical activity tasks. Hope of recovery, active lifestyle with previous physical activity experiences, healthy habits and a gritty attitude emerged as facilitating factors to adherence to physical activity related rehabilitation. Own home with house chores and familiar routines were considered desired and perceived as enhancing physical activity. There is a very limited amount of research investigating physical activity and mobility of older adults living at home compared to other living options. Cress, Orini and Kinsler (2011) evaluated the daily physical activity and physical function of older

people living at home as compared to residents of retirement communities. The results of the study, using general linear regression analysis, showed that function and the size of the home predominantly influence physical activity and that daily physical activity was significantly higher in people living at home. Considering these findings, supporting living at home in various ways, including offering sufficient medical services, social and emotional support, aiding equipment and other support services, can be viewed as a major factor in the maintenance of physical activity and mobility for older people.

All the participants of the current study have experienced a change in their life situation due to a medical condition. The ability to adjust to a new life situation varies among different people. The need for individual tailoring of rehabilitation is evident. The function and goals of the home-based rehabilitation program appeared as vague for some of the participants. Revisiting and reconsidering the goals repeatedly could be an approach to clarify the function of rehabilitation, and to further focus the tasks individually. As discussed earlier, trust for the professional may facilitate the process, and assumably it is easier to talk about one's wishes and aspirations to a familiar person.

7 CONCLUSIONS

The research gap concerning the factors explaining why some people benefit less from home-based physical rehabilitation has risen from the Promoting mobility after hip fracture (ProMo)-project (Sipilä et al., 2011; Edgren et al. 2013; Edgren et al. 2015), which was the predecessor of the Promotion of Physical activity- research project (ProPA). There is clearly a gap in existing research concerning the perceptions of older adults with musculoskeletal injuries on their home-based rehabilitation experiences and perceived barriers and facilitators on physical activity tasks related to rehabilitation. The present study strived to contribute to that void by representing an interpretation on ageing home-based rehabilitation participants' experiences and perceptions of their barriers and facilitators of physical activity related to the intervention. Bringing the voice of older adults into the planning of person-centered rehabilitation programs may lead to implementation of more effective rehabilitation strategies.

The purpose of this Master's thesis study was to qualitatively explore the perceptions of the participants of ProPA -project on the rehabilitation program and to investigate the barriers and facilitators of adhering to physical activity related rehabilitation.

The method of this study was Interpretive phenomenological Analysis (IPA; Smith, 1996) which has distinctively been developed to conduct qualitative research in psychology and has particularly been used in qualitative research on health psychology related phenomena (Smith, Jarman, & Osborn, 1999). The data was collected as semi-structured face-to-face interviews from participants (n=5) of ProPA-project after the 6-month follow-up of the research intervention.

The results of this study suggest that the participants perceived rehabilitation as exercises and movement tasks to maintain mobility and muscle strength, whereas home-based rehabilitation was characterized by having a rehabilitation professional visit at home and teach the exercises. The benefits of rehabilitation were perceived to be the ability to stay mobile, to take care of oneself and everyday chores, to build muscle strength and to enhance motivation to stay active. Having a human contact was perceived as one of the most valuable aspects of the rehabilitation program.

The barriers and facilitators of adhering to physical activity related rehabilitation were categorized under seven major themes that all included multiple sub themes. The major

themes were identified as physiological factors, emotional factors, social support factors, learned factors, environment related factors, healthcare related factors, and rehabilitation related factors. A bilateral nature of function enhancing (facilitator) and disability maintaining (barrier) aspects of the same phenomena could be perceived in the themes, which is consistent with the ICF participation model (WHO, 2001).

In large, the themes identified in this study correspond with previous findings of barriers and facilitators of physical activity among older people. Physical health status, social influences, factors related to physical environment, enjoyable or unpleasant emotional experiences, and (learned) knowledge of the benefits of PA are extensively addressed in previous research literature. However, there is little or no research on perceptions of older participants on the barriers and facilitators of physical activity oriented home-based rehabilitation. Thus, this study can increase the bundle of knowledge on how the participants experience the design of the rehabilitation program, and what they consider meaningful and desired in the intervention. The two categories of this study, that differ from research literature concerning the determinants of physical activity, are the major themes of healthcare and rehabilitation related factors. Timely visits and the competence of rehabilitation professionals were perceived as influential determinants of older people's home-based interventions in Orpen and Harris' (2010) study. Similar factors unfold in the rehabilitation related theme of this study. Previous and comorbid health problems and pain emerged as the most prominent barriers to physical activity related rehabilitation tasks in this study, which also corresponds with previous research on physical activity and rehabilitation determinants. Yet, the perception of not being heard by healthcare and rehabilitation personnel, in issues like concurrent illnesses, pain or fears, strongly emerged as a unique factor across the themes of this study.

Fear of falling appeared as the most prevalent emotional determinant of physical activity related rehabilitation tasks, which was also highly reported in Turunen and colleagues' (2020) study on the ProPA -project. Social support factors and trust towards professionals were perceived as enhancing efficacy and decreasing fear, which could suggest that emphasis on social support approaches with a psychological behavior change focus can decrease the effects of emotional barriers and increase the emotional factors that facilitate participation in physical activity. Moreover, different approaches of rehabilitation professionals were desired by different participants. These findings support the suggestion of Turunen and colleagues (2020), that possibly the most vulnerable older people with multiple health problems would

likely benefit from an extended and more frequently monitored intervention to improve physical activity and mobility.

The importance of individual planning in different levels of a rehabilitation program emerged in various subthemes of the study. Individually considered aspects of rehabilitation should at least be the medical issues of the participants, emotional issues, reinforcement and motivational factors, need for aiding equipment and services, and forms of social support (professional, peer, family), and the timely manner and sufficient amount of visits from rehabilitation personnel. To be able to answer to the individual needs of participants, co-operation between healthcare and rehabilitation personnel is needed, as well as time and means to build trust and hear what is considered effective by the older clients.

Small sample size (n=5) was a limitation of this study and the results cannot be generalized. Member checking and researcher triangulation could have increased the trustworthiness of the results. However, the lengthy interviews were carefully transcribed and analyzed in attempt to bring the voice and notions of the participants forth. Although, the findings of this study cannot be generalized, the study attempts to build on and deepen previous research knowledge of rehabilitation and the new findings can be considered when designing physical activity enhancing rehabilitation programs for older people.

Further research on the effects of integrating psychological behavior change techniques, and functional assessment methods, to physical activity related home-based rehabilitation, are recommended. Furthermore, investigating the influence of psychological emotion regulation or acceptance techniques on fear of falling are suggested. Moreover, research on physical activity and mobility of older adults living at home compared to other living options is needed.

REFERENCES

Abdi, S., Spann, A., Borilovic, J., de Witte, L., & Hawley, M. (2019). Understanding the care and support needs of older people: A scoping review and categorisation using the WHO international classification of functioning, disability and health framework (ICF). *BMC Geriatrics, 19*(1), 195. doi:http://dx.doi.org.ezproxy.jyu.fi/10.1186/s12877-019-1189-9

Aspinal, F., Glasby, J., Rostgaard, T., Tuntland, H., & Westendorp, R. G. J. (2016). New horizons: Reablement - supporting older people towards independence. *Age and Ageing, 45*(5), 574-578. doi:10.1093/ageing/afw094

Bauman, A., Merom, D., Bull, F. C., Buchner, D. M., & Fiatarone Singh, M. A. (2016). Updating the evidence for physical activity: Summative reviews of the epidemiological evidence, prevalence, and interventions to promote "active aging". *The Gerontologist, 56*(Suppl 2), S280. doi:10.1093/geront/gnw031

Beswick, A. D., Rees, K., Dieppe, P., Ayis, S., Gooberman-Hill, R., Horwood, J. & Ebrahim, S. (2008). Complex interventions to improve physical function and maintain independent living in elderly people: A systematic review and meta-analysis. *The Lancet (British edition), 371*(9614), pp. 725-735. doi:10.1016/S0140-6736(08)60342-6

Brocki, J. M. & Wearden, A. J. (2006). A critical evaluation of the use of interpretative phenomenological analysis (IPA) in health psychology. *Psychology & health, 21*(1), pp. 87-108. doi:10.1080/14768320500230185

Clark, J. P. (2003). How to peer review a qualitative manuscript. In F. Godlee & T. Jefferson (Eds.). Peer Review in Health Sciences. 2nd Ed., p:219-235. London: BMJ Books.

Cochrane, A., McGilloway, S., Furlong, M., Molloy, D. W., Stevenson, M., & Donnelly, M. (2010). Home care re-ablement services for maintaining and improving older adults' functional indepenedence. *Cochrane Database of Systematic Reviews 2013, Issue 11. Art. no.: CD010825.,* doi:10.1002/14651858.CD010825

Cress, M. E., Orini, S., & Kinsler, L. (2011). Living environment and mobility of older adults. *Gerontology, 57*(3), 287-94. doi:http://dx.doi.org.ezproxy.jyu.fi/10.1159/000322195

Creswell, J. W. (2012). Qualitative inquiry and research design: Choosing among five approaches (3rd ed.). Thousand Oaks: SAGE Publications.

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice, 39*(3), 124-130. doi:10.1207/s15430421tip3903_2

Crimmins, E. M. (2015). Lifespan and healthspan: Past, present, and promise. *The Gerontologist, 55*(6), 901-911. doi:10.1093/geront/gnv130

Edgren, J., Salpakoski, A., Heinonen, A., Rantanen, T., Kallinen, M., von Bonsdorff, M.B., Portegijs, E., Sihvonen, S., & Sipilä, S. (2013). Balance confidence and functional balance are associated with physical disability after hip fracture. Gait Posture 2013; 2:201–205.

Edgren, J., Salpakoski, A., Sihvonen, S. E., Portegijs, E., Kallinen, M., Arkela, M., Jäntti, P., Vanhatalo, J., Pekkonen, M, Rantanen, T., Heinonen, A., & Sipilä, S. (2015). Effects of a home-based physical rehabilitation program on physical disability after hip fracture: A randomized controlled trial. Journal of the American Medical Directors Association, 16 (4), 350.e1-350.e7. doi:10.1016/j.jamda.2014.12.015

El Mohsen, Azza M. Abd, El Ghaffar, Hossam Eddien F. Abd, Nassif, N. S., & Elhafez, G. M. (2016). The weight-bearing exercise for better balance program improves strength and balance in osteopenia: A randomized controlled trial. *Journal of Physical Therapy Science, 28*(9), 2576-2580. doi:10.1589/jpts.28.2576

Franco, M. R., Tong, A., Howard, K., Sherrington, C., Ferreira, P. H., Pinto, R. Z., & Ferreira, M. L. (2015). Older people's perspectives on participation in physical activity: A systematic review and thematic synthesis of qualitative literature. *British Journal of Sports Medicine, 49*(19), 1268. doi:http://dx.doi.org.ezproxy.jyu.fi/10.1136/bjsports-2014-094015

Fries, J. F. (1980). Aging, natural death, and the compression of morbidity. *The New England Journal of Medicine, 303*(3), 1369–1370. doi:10.1056/NEJM198012043032317

Guralnik, J., Ferrucci, L., Simonsick, E., Salive, M. & Wallace, R. (1995). Lower-extremity function in persons over the age of 70 years as a predictor of subsequent disability. *New England Journal Of Medicine, 332*(9), pp. 556-561.

Hayes, S. C. (1993). Analytic goals and the varieties of scienticif contextualism. In S. C. Hayes, L. J. Hayes, H. W. Reese, & T. R. Sarbin (Eds.) *Varieties of scientific contextualism* (pp. 11-27). Oakland, CA: New Harbinger Publications.

Hu, Y., Junge, K., Nguyen, A., Hiegel, K., Somerville, E., Keglovits, M. & Stark, S. (2019). Evidence to Improve Physical Activity among Medically Underserved Older adults: A Scoping Review. *The Gerontologist, 59*(4), p. e279. doi:10.1093/geront/gny030

Hughes, S. (2018). The philosophy of science as it applies to clinical psychology. Hayes, S. C., & Hofmann, S. G. (2018). *Process-based CBT: The science and core clinical competencies of cognitive behavioral therapy*. New Harbinger.

Kowal, S. & O'Connell, D. (2014). Transcription as a crucial step of data analysis. In Flick, U. *The SAGE handbook of qualitative data analysis* (pp. 64-78). London: SAGE Publications Ltd doi: 10.4135/9781446282243

Legg, L., Gladman, J., Drummond, A., & Davidson, A. (2016). A systematic review of the evidence on home care reablement services. *Clinical Rehabilitation, 30*(8), 741-749. doi:10.1177/0269215515603220

Macera, C. A., Cavanaugh, A. & Bellettiere, J. (2017). State of the Art Review: Physical Activity and Older Adults. *American Journal of Lifestyle Medicine, 11*(1), pp. 42-57. doi:10.1177/1559827615571897

Mann, R., Beresford, B., Parker, G., Rabiee, P., Weatherly, H., Faria, R., . . . Aspinal, F. (2016). Models of reablement evaluation (MoRE): A study protocol of a quasi-experimental mixed methods evaluation of reablement services in england. *BMC Health Services Research, 16*(a), 375. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/27514660

Melov, S. (2016). Geroscience approaches to increase healthspan and slow aging. *F1000Research, 5*, 785. doi:10.12688/f1000research.7583.1

Morgan, D. L. (2014). Pragmatism as a Paradigm for Social Research. *Qualitative Inquiry, 20*(8), pp. 1045-1053. doi:10.1177/1077800413513733

Newquist, D. D., Deliema, M. & Wilber, K. H. (2015). Beware of Data Gaps in Home Care Research: The Streetlight Effect and Its Implications for Policy Making on Long-Term Services and Supports. *Medical Care Research and Review, 72*(5), pp. 622-640. doi:10.1177/1077558715588437

Olanrewaju, O., Kelly, S., Cowan, A., Brayne, C. & Lafortune, L. (2016). Physical activity in community-dwelling older people: A review of systematic reviews of interventions and context. *The Lancet (British edition), 388*, p. S83. doi:10.1016/S0140-6736(16)32319-4

Orpen, N., & Harris, J. (2010). Patients' Perceptions of Preoperative Home-Based Occupational Therapy and/or Physiotherapy Interventions Prior to Total Hip Replacement. *British Journal of Occupational Therapy*, *73*(10), 461–469. https://doi.org/10.4276/030802210X12865330218267

Paterson, D. H., & Warburton, D. E. (2010). Physical activity and functional limitations in older adults: A systematic review related to canada's physical activity guidelines. *The International Journal of Behavioral Nutrition and Physical Activity, 7*(1), 38. doi:10.1186/1479-5868-7-38

Pavasini, R., Guralnik, J., Brown, J. C., Mauro, d. B., Cesari, M., Landi, F., Vaes, B., Legrand, D., Verghese, J., Wang, C., Stenholm, S., Ferrucci, L., Lai, J. C., Bartes, A. A., Espaunella, J., Ferrer, M., Lim, J-Y., Ensrud, K. E., Cawthon, P., Turusheva, A., Frolova, E., Rolland, Y., Lauwers, V., Corsonello, A., Kirk, G. D., Ferrari, R., Volpato, S., & Ferrer, M. (2016). Short physical performance battery and all-cause mortality: Systematic review and meta-analysis. *BMC Medicine, 14* doi:http://dx.doi.org.ezproxy.jyu.fi/10.1186/s12916-016-0763-7

Reichertz, J. (2014). Induction, deduction, abduction. In Flick, U. *The SAGE handbook of qualitative data analysis* (pp. 123-135). London: SAGE Publications Ltd doi: 10.4135/9781446282243

Robins, L. M., Hill, K. D., Day, L., Clemson, L., Finch, C. & Haines, T. (2016). Older Adult Perceptions of Participation in Group- and Home-Based Falls Prevention Exercise. *Journal of aging and physical activity, 24*(3), p. 350. doi:10.1123/japa.2015-0133

Rodham, K., Fox, F. & Doran, N. (2015). Exploring analytical trustworthiness and the process of reaching consensus in interpretative phenomenological analysis: Lost in transcription. *International journal of social research methodology, 18*(1), pp. 59-71. doi:10.1080/13645579.2013.852368

Seals, D. R., Justice, J. N., & LaRocca, T. J. (2016). Physiological geroscience: Targeting function to increase healthspan and achieve optimal longevity. *The Journal of Physiology, 594*(8), 2001-2024. doi:10.1113/jphysiol.2014.282665

Shinebourne, P. (2011). Interpretative phenomenological analysis. In N. Frost (Ed.), *Qualitative research methods in psychology* (pp. 44-65). Berkshire: McGraw-Hill Education.

Sipilä, S., Salpakoski, A., Edgren, J., Heinonen, A., Kauppinen, M.A., Arkela-Kautiainen, M., Sihvonen, S.E., Pesola, M., Rantanen, T., & Kallinen, M. (2011). Promoting mobility after hip fracture (ProMo): study protocol and selected baseline results of a year-long randomized controlled trial among community-dwelling older people. BMC Musculoskelet Disord. 2011 Dec 7;12:277.

Smith, J. A. (1996). Beyond the divide between cognition and discourse: Using interpretative phenomenological analysis in health psychology. *Psychology & health, 11*(2), pp. 261-271. doi:10.1080/08870449608400256

Smith, J., Jarman, M. & Osborn, M. (1999). Doing interpretative phenomenological analysis. In M. Murray & K. Chamberlain (Eds.), *Qualitative health psychology: Theories and methods* (pp. 218-240). London: SAGE Publications Ltd doi: 10.4135/9781446217870.n14

Stolee, P., Lim, S. N., Wilson, L. & Glenny, C. (2012). Inpatient versus home-based rehabilitation for older adults with musculoskeletal disorders: A systematic review. *Clinical Rehabilitation, 26*(5), pp. 387-402. doi:10.1177/0269215511423279

The Standard Rules on the Equalization of Opportunities for Persons with Disabilities. (1994). Adopted by the United Nations General Assembly at its 48th session on 20 December 1993 (resolution 48/96). New York, NY, United Nations Department of Public Information.

Tuntland, H., Kjeken, I., Langeland, E., Folkestad, B., Espehaug, B., Førland, O., & Aaslund, M. (2016). Predictors of outcomes following reablement in community-dwelling older adults. *Clinical Interventions in Aging, 12*, 55-63. doi:10.2147/CIA.S125762

Turunen, K. (2014). Promotion of physical activity in older people recovering from lower extremity medical event or condition. Research plan. Unpublished manuscript, Gerontology Research Center (GEREC), Department of Health Sciences, University of Jyväskylä.

Turunen, K. (2015). Sairaalasta kotiutuvien iäkkäiden kuntoutujien fyysisen aktiivisuuden edistäminen. Web-page retrieved from http://gerocenter.fi/tutkimus-ja-kehittaminen/omaishoitajien-kuntoutuskurssien-arviointitutkimus/

Turunen, K., Aaltonen, L., Kumpumaki, J., Portegijs, E., Keikkala, S., Kinnunen, M. -. L., Finni, T, Sipilä, S., & Nikander, R. (2017). A tailored counseling and home-based rehabilitation program to increase physical activity and improve mobility among community-dwelling older people after hospitalization: Protocol of a randomized controlled trial. (Report). *BMC Musculoskeletal Disorders, 18*(1), . doi:10.1186/s12891-017-1825-5

Turunen, K. M., Aaltonen-Määttä, L., Törmäkangas, T., Rantalainen, T., Portegijs, E., Keikkala, S., Kinnunen, M-L., Finni, T., Sipilä, S., & Nikander, R. (2020). Effects of an individually targeted multicomponent counseling and home-based rehabilitation program on physical activity and mobility in community-dwelling older people after discharge from hospital: A randomized controlled trial. *Clinical rehabilitation, 34*(4), pp. 491-503. doi:10.1177/0269215519901155

U.S. Department of health and human services. (2008). *2008 physical activity guidelines for Americans*. Retrieved October 13, 2020 from https://health.gov/paguidelines/pdf/paguide.pdf

United Nations. (1991). Principles for Older Persons. Adopted by General Assembly resolution 46/91 of 16 December 1991. Retrieved April 2017 from http://www.ohchr.org/Documents/ProfessionalInterest/olderpersons.pdf

United Nations. (2006). Convention on the Rights of Persons with Disabilities. Retrieved October, 2020 from https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf

United Nations, Department of Economic and Social Affairs, Population Division. (2015). *World Population Ageing.* Washington, DC: US Gov. PrintOff.

U.S. Department of Health and Human Services, Office of the Surgeon General (2016). *Healthy Aging in Action.* National Prevention Council. US: Washington, DC.

Vogel, T., Brechat, P., Leprêtre, P., Kaltenbach, G., Berthel, M., & Lonsdorfer, J. (2009). Health benefits of physical activity in older patients: A review. *International Journal of Clinical Practice, 63*(2), 303-320. doi:10.1111/j.1742-1241.2008.01957.x

Walker, A. (2002). A strategy for active ageing. *International Social Security Review, 55*(1), 121-139. doi:10.1111/1468-246X.00118

Willig, C. (2014). Interpretation and analysis1. In Flick, U. *The SAGE handbook of qualitative data analysis*(pp. 136-150). London: SAGE Publications Ltd doi: 10.4135/9781446282243

World Health Organization. (1996). The Brasilia Declaration on Ageing. WHO Programme on Ageing and Health, Division of Health Promotion, Education and Communication. Geneva: WHO.

World Health Organization. (2001). *International classification of functioning, disability and health: ICF.* Geneva: WHO.

World Health Organization. (2002). *Active ageing. A policy framework.* (WHO/NMH/NPH/02.8). Geneva: WHO Noncommunicable Diseases and Mental Health Cluster. Retrieved April 2017, from http://apps.who.int/iris/bitstream/10665/67215/1/WHO_NMH_NPH_02.8.pdf

World Health Organization. (2002). *Towards a Common Language for Functioning, Disability and Health ICF.* Geneva: WHO; WHO/EIP/GPE/CAS/01.3. Retrieved October 2020, from https://www.who.int/classifications/icf/icfbeginnersguide.pdf

World Health Organization. (2013). *How to use the ICF: A practical manual for using the International Classification of Functioning, Disability and Health (ICF).* Exposure draft for comment. Geneva: WHO

World Health Organization. (2017). *Rehabilitation in health systems.* Geneva: WHO; Licence: CC BY-NC-SA 3.0 IGO.

Yardley, L., Beyer, N., Hauer, K., Kempen, G., Piot-Ziegler, C. & Todd, C. (2005). Development and initial validation of the Falls Efficacy Scale-International (FES-I). *Age and Ageing, 34*(6), pp. 614-9. doi:10.1093/ageing/afi196