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Physiotherapists' experience on telerehabilitation process

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<p>The purpose of this study was to produce knowledge on telerehabilitation process in Homerehabilitation (in Finnish, Kotikuntoutusfysioterapia) unit in the city of Helsinki. The purpose was to identify strengths and weaknesses regarding telerehabilitation process and how employees are experiencing the usage of telerehabilitation and its influence on how digitalization is experienced and how it affects wellbeing in work.</p> <p>The study used qualitative method in semi-structured interviews that were done in 2021. The interviews were headed towards the employees of Homerehabilitation unit. A total of 47 invites to participate in the interview were sent out and 11 people answered.</p> <p>The results were analysed with content analysis that used inductive method. The data was organized and categorized. The findings of a qualitative content analysis cannot be applied to a large group of people. A bigger sample size would be necessary for generalizability.</p> <p>However, the results serve the working life partner, Homerehabilitation unit, in the city of Helsinki. The results provided insight what could be improved, but also the strengths and positives in work process, workflow and work efficiency. It also provides import knowledge and how to implement new tools and methods in working culture.</p> <p>The results showed that there is a lot of strengths when it comes to using telerehabilitation in general, however, in the process and working culture is still under construction and looking for simplified and more efficient methods. The results gathered that digitalization is very welcomed among employees, when implemented in right way. Yet not all interactions are possible to execute via technology, but technology can be used in many processes.</p> <p>In conclusion, this study offers above all ideas as well as an understanding of what should be improved when it comes to listening to the employees and enhancing the process of telerehabilitation initiative in Homerehabilitation unit. Naturally, changes and adaptations have been made after this study comes out.</p>	
Keywords	telerehabilitation, physiotherapy, remote rehabilitation

Contents

1	Introduction	2
2	Background	4
3	Theoretical framework	5
3.1	Concepts and definitions	7
3.2	Work culture and technology	7
3.3	Telerehabilitation in physiotherapy	9
3.4	E-services in Health Care	11
3.5	Telecare in Helsinki	12
4	Study purpose, aims and method	14
4.1	Research aims	15
4.2	Research method	15
4.3	Sample and data gathering	17
4.4	Content analysis	18
5	Results	19
6	Discussion	25
7	Conclusions	27

References

Appendices

Appendix 1. Cover letter

Appendix 2. General Data Protection Regulation, GDPR

Appendix 3. Semi-structured interview frame

1 Introduction

Physiotherapy is a profession that specializes in movement, performance, and health promotion. It aims to improve and sustain functional ability which can be affected due to injury, pain, illness, malfunction, or environmental factors. Physiotherapy is effective, relevant, and cost - efficient, and based on scientifically researched rehabilitation models. (Kela 2019; Suomen Fysioterapeutit 2022)

Finland is one of the most fastest aging country in the world. Helsinki is estimated to have 114 000 over 65-year-olds in the end of 2020, which is 1 700 more than the year before. By the end of 2049, the part of elderly in Helsinki is estimated to grow from 17 percent to over 21 percent. It forecasts that there would be living approximately 177 000 elderlies, over 67 000 more than now. (Helsingin kaupunki, 2021)

Digitalization and digital transformation in the healthcare industry has increased phenomenally in the last decade. Digital transformation and technology are needed to make it possible to enable the growing need of healthcare services. Using technology can secure better patient care, and it save costs and time. (Ilmarinen & Koskela, 2015)

After the pandemic outbreak in the 2020's, the telecommuting and new solutions of working grew to its full potential. The need of new, creative ways of doing what was thought to be traditional work increased exponentially. Usage of different platforms and ways of conducting work rose rapidly. Ongoing pandemic pushed the health care sector to its absolute limits and society is now facing the turmoil that pandemic left behind. The restrictions and recommendations have had massive impact on the population's wellbeing as well as service systems and political economy. The pandemic has influenced people's everyday life when it comes to remote work and usage of e-services. (Kestilä, Härmä and Rissanen, 2020)

Telerehabilitation and digitalization have been increasing steadily but last few years new models and viewpoints on rehabilitation has taken steps into general rehabilitation forms. Therapy that is operated via video is now an general option with the traditional face-to-face rehabilitation. (Salminen et al., 2016)

Working life is changing as a result of digitalization, and health technology is increasingly being used in clinical practice in the social and health sectors. To solve social concerns such as aging and equitable access to services, new innovations and health technology must be brought to the health sector with a critical vision and evidence. Scientific research informs our social and health-care operations, assists decision-making, and aids in the delivery of high-quality services. (Jauhiainen et al., 2017; Shiferaw, Tilahun and Endehabtu, 2020)

Various digital health services have been proven to have a wide range of beneficial benefits on health, well-being, and quality of life, as well as self-reliance and engagement chances. Digital services can assist to enhance and expand care availability and accessibility, as well as care results, while also reducing travel time and emissions. Finns are well equipped for the use of technological services and have a favorable attitude toward them, according to research. (Jauhiainen et al., 2014)

The goal of this thesis was to share information on telerehabilitation process experiences, problems, and achievements. The thesis was written to aid the city of Helsinki Homerehabilitation unit's operations as well as its future growth.

2 Background

Social and healthcare professionals aim to enhance health and functional ability. Good functional ability gives to the patient possibility to act and operate in everyday life, but also in work and in society. Even considerable limit of functional ability can still offer high level wellbeing. (THL, 2021)

Functional ability can be defined in many ways, but in average, functional ability is defined in physical, psychological and social competences that have affect on how patient manages in society, and in own environment and in individually meaningful function. In some literature, functional ability includes also cognitive abilities. (THL, 2021)

Rehabilitation is based on patient needs and goals, which are in line with patient environment and functional ability (Paltamaa et al., 2011). Physiotherapy is essential key when it comes to multiprofessional team in rehabilitation. In physiotherapy, the patient's functional ability and competences is examined and evaluated in wide perspective. (Hynynen et al., 2016)

Partala (2009) states in her research that physical activity and experienced functional ability is in connection with wellbeing of elderly. When a elderly manages everyday living individually and on their own, it can enhance and better also the wellbeing of the society.

Physical activity in the elderly has both individual and community benefits, including a lower mortality rate. There were fewer heart attacks and strokes, as well as circulation issues in the peripheral arteries. Hypertension is a rare occurrence. Diabetes mellitus has a lower proclivity for development (Hollmann et al., 2007). In comparison to less active independent participants Garatachea et al., (2009) also explains that the findings show that emotions of subjective well-being are significantly diminished in less active dependent subjects. However, there is no discernible difference between dependent and independent active people. Garatachea et al., (2009) study backs up the positive psychological impacts of physical activity in people who have difficulty doing daily duties.

Salminen et al., (2016) stated in their report that in Finland, the necessity to increase access to care and rehabilitation has prompted the search for innovative methods to

organize services. Various remote technologies (cell phone, computer, and mobile devices such as tablet computers) have grown more widespread in treatment and rehabilitation as technology has advanced. The objective is to provide user-friendly digital public services that boost productivity and efficiency at a single point of contact. E-services have been highlighted by the Ministry of Social and Health to increase people's ability to take care of their own health and well-being, as well as to obtain new sorts of social and health care services from their place of residence, regardless of the service provider.

Latest studies show and support the results that remotely guided rehabilitation is as effective as it is face-to-face. However, the findings suggest a mix of face-to-face encounters and remote rehabilitative periods. The kind of therapy, as well as the patient's communication needs, resources, and digital competence, should determine whether they have a digital or on-site consultation. (Hawley-Hague, Tyson and Stanmore, 2022; Inskip et al., 2017)

Study theme was chosen by interest and relevant issue. This study work has been done in the environment of working life partner and its findings can be used to benefit the organization and the Homerehabilitation physiotherapy unit in the city of Helsinki.

3 Theoretical framework

Health- and rehabilitation service digitalization is becoming more common in Finland. Due to help of digitalization and technology, health care services aim to be closer to the customer. Rehabilitation should consistently be influential, meaningful, and cost-wise. It should always be based on scientific evidence. Due to digitalization and technology, rehabilitation can be produced in a way that it is more profitable, successful, and quality social- and health care services. (Salminen & Hiekkala 2019, p.9).

Distances between patient and service providers can be long and the rehabilitation service providers are less than expected patients. Telerehabilitation does not cause expenses for the patient nor for the rehabilitation provider. Additionally, telerehabilitation offers a chance for the patient's relatives to participate to the rehabilitation better and improve multiprofessional teamwork (Salminen et al. 2016, p. 25, 205).

Kela is the Social Insurance Institution of Finland, is a government agency that provides basic economic security for everyone living in Finland (Kela, 2021). Kela recommendations states that telerehabilitation should be increased. Telerehabilitation is a tool that can provide and add more opportunities and equality for patients. Telerehabilitation increases availability of rehabilitation services, offers an opportunity for rehabilitation leaving aside the patient's location and by that way offers rehabilitation also for those, who have disabilities or difficulties to attend rehabilitation outside their home. Kela (2016) states in its study that telerehabilitation is found to be as useful and efficient as face-to-face happening rehabilitation and e-services can increase the possibility to take care of individual health and welfare.

The city of Helsinki aims in its strategy "Health and well-being for everyone" that every its residents would have opportunity to live fulfilling life and access to support and services when needed. The welfare plan benefits everyone, and the strategy aims that welfare is available for every individual (Helsingin kaupunki, 2021).

One of the key performance indicators in the city of Helsinki's plan is to achieve this goal by increasing digital services and remote receptions and promote the mobility of elder demographics. The social and health care industry is purposefully developing its services together with staff and with customers as part of a growing city. The industry's services will improve the patient's experience and the availability of services, the effectiveness and productivity of services, and staff experience. To achieve the goal of "improving the customer experience and customer satisfaction" is by renewing services together with customers and staff. In addition, the plan ensures equality and inclusion in all services. The aim is also to increase guidance and counseling for the elderly in the use of digital services (Sosiaali- ja terveystoimen käyttösuunnitelma ja tulosbudjetit, 2021. p. 3, 7, 14, 18).

Valvira (2019), the Agency for Social and Health Care Licensing and Supervision, recommends that a health care expert evaluate if the service is acceptable for remote implementation. A physiotherapist evaluates if the rehabilitator's health and conditions, as well as his or her functional capabilities, allow for telerehabilitation. Typically, a face-to-face examination of the patient's objectives and condition is performed first, followed by telerehabilitation. After a period of rehabilitation, it is typical to assess the impact of the rehabilitation. This will also be done in person, in accordance with existing norms.

3.1 Concepts and definitions

Telerehabilitation encompasses a wide range of remote technologies (telephone, mobile phone, computer, and tablet computers, as well as phone and computer sharing and television applications). Remote therapy, like other types of rehabilitation, is professionally supervised and monitored and has a specific aim, starting, and finish. (Salminen et al., 2016)

The term "real-time telerehabilitation" refers to when a patient and a service provider communicate in real time using programs that use remote technology. This might include patient advice, evaluation, rehabilitation, or rehabilitation monitoring via the phone or by video link, or over the Internet. Depending on the technology, real-time telerehabilitation can be done individually or in groups. (Salminen et al., 2016)

An elderly person is a person of an age entitled to an old-age pension (Old Age Services Act 980/2012, section 3). In statistical surveys, it is a fairly well-established practice to count the elderly population aged 65 and over, although in practice the age of entitlement to an old-age pension varies depending on, among other things, the person's year of birth. The term elderly literally refers to age and does not in itself contain assumptions about the elderly person's state of health or ability to function. However, as health status and functional capacity are strongly correlated with age - both deteriorating with age - the focus is often on older people whose functional capacity and health have deteriorated with age. However, the number of older people is very heterogeneous. More and more old-age pensioners are doing well and living an active life.

3.2 Work culture and technology

The transformation of the world economy continues to change the structures and conditions of work. More and more organizations, both private and public, are having to rethink their practices and seek competitive advantage in terms of flexibility, speed and the productivity of innovation to increase their own value. Work can be done around the world thanks to interactive information and communication technologies. (Manka & Manka, 2016)

Manka & Manka (2016) highlights that intangible capital is being valued as the most significant themes when it comes to economy and economic growth. This means that

practices and measures that increase employees' capacity to work, work safely and healthily, and ergonomics provide the foundation for working well-being capital. It's important to remember that the foundation for happiness at work is built on the job. Flexible work processes and management, in particular, allow possibilities to influence one's own job, which create a long-term and required foundation for workplace well-being.

Employees of the organization and structure of procedures which is included into talent capital, is intangible, when as buildings, facilities, machines and so on, are considered to be tangible capital. A new, more self-initiated and entrepreneurial work attitude can be built through a sustainable, motivating and appreciative personnel policy and taking care of the well-being of the personnel at work. Old ways of working will no longer help the organization to thrive in changed conditions. Effectiveness, flexibility and quality has been thought to be key factors when it comes to succeeding – until now. Traditional resources can not be added as they used to, and work has to be done in new ways. (Manka & Manka, 2016; 51-53)

Koski and Husso explains (2018) that usage of technology can be challenging to employees that are at the other end of age spectrum, which means that input in training and orientation is crucial. If the know-how linked to using the service is not adequately addressed, uncertainties and attitudes about using the service and the associated effort are likely to rise. The organizing of training in smaller units might possibly be more flexible, and the exchange of knowledge amongst staff could be easier to organize. (Koski & Husso 2018, 30-31; Rantala 2018, 71-73.)

Digitalization and increasing usage of digital technologies inside of work culture can effect on wellbeing at work. Using new technology or software's can be stressing for some employees, and therefore it should be addressed to invest in the user education. Employees chance to influence on the new technologies that enter the job field should not be overlooked, as they in best case offer a valuable insight. Good leadership and working work culture increase job wellbeing, which increases efficiency and profitability. Therefore investing in these, increases the digital possibilities in the work places. (Koski and Husso 2018, 30-31.)

Digitalization can effect on job well-being and also addresses the need to look after employees skills when it comes to technological skills and experience. It has been noticed

that employees that are at the end of their career, have challenges to use and implement technology and motivation to learn new software's or equipment compared to the younger generation. Therefore, it is crucial to invest in the skills and support. If this aspect is neglected, it can have negative outcomes when it comes to elongate careers. (Koski and Husso, 2018 p. 30-31)

Using digitalization and its possibilities is arrangeable in almost every field of work and workplaces. Job culture and practices guide how the technology will be used. Leadership and good practices within a job environment have a crucial role. It is extremely important to support workplaces with digitalization, with the intention to have more opportunities and enhance the quality of working life. (Koski & Husso, 2018)

3.3 Telerehabilitation in physiotherapy

Finnish Association of Physiotherapists (Suomen fysioterapeutit) (2022) defines that mobility, functional ability, and health promotion are unique areas of expertise for physiotherapists. Guidance and counseling that increases health and functional ability, therapeutic training, manual treatment, and assistive services are the major approaches of physiotherapy. Physiotherapy provides preventative and rehabilitative treatments to individuals and groups, either at the reception, through telerehabilitation, or at home.

Telerehabilitation, has become a solution to reach out to patients. With telerehabilitation and the remote access to patients, rehabilitation can as affective as it would be face to face (Salminen et al., 2016). This sets some criteria for the patients, as they must have adequate cognition and comprehension. For training, patients must be on a level, where they can individually carry out the exercise. Telerehabilitation is also an excellent tool to monitor progression. Seron et al. (2021) states in their study on effectiveness of telerehabilitation in physiotherapy that for illnesses like osteoarthritis, low back pain, hip and knee replacement, and multiple sclerosis, as well as cardiac and pulmonary rehabilitation, telerehabilitation in physical therapy could be similar to in-person rehabilitation or better than no rehabilitation. Clinical trials and systematic reviews of higher quality are essential.

Damhus, Emme and Hansen (2018) evaluated in their study that giving therapeutic practice instructions through a screen, according to some specialists, takes longer than nor-

mal. Video and audio communication is also more difficult than face-to-face communication. Some of the professionals also said that they should be given assistance and training in using the screen to communicate and express themselves. Some professionals, on the other hand, found communication difficult at first, but as they gained experience, communication grew more natural. Telerehabilitation, according to experts, necessitates more ingenuity in the implementation of therapeutic exercise programs than regular implementation. The common consensus in the study united that the opinion of professionals was that face-to-face physiotherapy should be stated first, and then continued by telerehabilitation. This study also underlined that the rehabilitators spot in front of the camera was appropriate and the environment quiet and secure.

Funderskov et al., (2019) noticed that a negative side of telerehabilitation is that if other individuals, such as family members or others, are present during the therapy, the patient may not express pain, discomfort, or other sensitive issues. As a result, telerehabilitation must consider the operational environment in order to protect the rehabilitator's right to privacy.

Rykkje and Hjorth (2017) explained that why user-friendly telerehabilitation equipment is necessity. One of the most essential variables in the efficiency of telerehabilitation and, more broadly, telerehabilitation has been identified as this. Some professionals find using equipment difficult, but with the right supervision and training, these difficulties may be overcome. Also, the patient's sense of security is enhanced by a well-functioning telerehabilitation technology. The speed of the communication link must also be considered so that the visual and audio connections do not become disrupted and interfere with the therapy's implementation. There may also be concerns that the patient's identification cannot be directly verified via remote connections. If the patient is recognized by the physiotherapist and have met before, however, there is no need to identify them. (Rykkje and Hjorth, 2017; Suomen fysioterapeutit 2020)

Inskip et al., (2017) study explains that overall, experts agree that telerehabilitation offers a new approach to connect with patients, and that it is likely to strengthen patients' responsibility for their rehabilitation as rehabilitation becomes more integrated into their everyday life at home.

3.4 E-services in Health Care

In the 2010s, the usage of health technology progressively increased, and it is expected to continue to develop in the future. Changes in the social and healthcare systems have resulted in a dramatic fall in the number of older people living in long-term care facilities. Considering this, the number of elderly individuals living at home is growing as the population ages, necessitating the use of health technology. (Etene, 2010)

Increase in population and population aging affect in the in the demand. The population of Helsinki is estimated to grow by 0,7 percent by year. (Helsingin kaupunki, 2021). Various technology solutions are already a part of the elderly's everyday life and home care activities. They campaign for older people's living, inclusion, and equitable access to services.

Technological solutions for the care of the elderly are already extensively used or being used to address a variety of health-related challenges. In terms of geriatric care, there are currently a variety of technology assistance available. Without the aid of technology, meeting the demand for assistance would be far more difficult, if not impossible, given present resources. When the number of caregivers is reduced and each caregiver has so much work to accomplish that virtually one shift isn't enough, it's critical that technology assistance are in place. (Josefsson and Hammar, 2022; Palvelukeskus Helsinki, 2018)

In 2018, the goal in the Social and Health Industry Operational Plan (Sosiaali- ja terveysalan käyttöönottosuunnitelma) was to increase telerehabilitation systematically for home care's pat, and to offer telerehabilitation for the one's who are discharged from hospital and may benefit from physical therapy and aftercare in home environment (Helsingin kaupunki, 2018, p. 11).

The most popular and easiest devices to use in the social and health care field is a safety phone or other safety device for the elderly with memory or mobility issues. Such devices are excellent when the elderly is still able to function somewhat independently but may need help from time to time. Safety phone is usually integrated in a form of a watch or necklace with one button that can send an alarm when pushed. This is extremely useful in the case of falling, for example. For patients that suffer from dementia, some sort of locating safety device is certainly needed, at least if they can move out the doors without

greater supervision. Safety devices are cost-effective since they can substitute a human supervisor and let the patient to alert help when needed (THL, 2022; Palvelukeskus Helsinki, 2018). This kind of service is in use in homecare in the city of Helsinki.

Location safety devices, better known GPS systems (Global Positioning System), there is options which can share the current location of patients with e.g., dementia that still manage to live at home. These GPS systems can be integrated into e.g., watches, so in case the patient goes missing, the location is easily tracked. There will come some ethical and moral questions when tracking people with these devices, although the purposes are good. (Helpinen, 2016).

Junko (2018) explains that the various remote monitoring applications that address these challenges have become an area of diverse research and development. Technology and digitalization can guarantee a better quality of life and level of service for the elderly, even as the number of people living at home increases. Technology can also catch up on geographical distances. Telemedicine and remote clinics may become commonplace very soon. Increasing applications of virtual reality and augmented reality are also expanding the possibilities of telemedicine.

Technology has a lot to offer the home care industry, and it should be developed further. More information is still needed on which client groups remote services are best suited for and what can be implemented remotely. The use of technology is not a goal in and of itself; it must always be based on the demands and responsiveness of the consumer. Because the consumer base and conditions vary among regions, the most successful technical solutions may differ. (Josefsson and Hammar, 2022)

3.5 Telecare in Helsinki

Palvelukeskus Helsinki provides the technical solutions to execute telecare and telerehabilitation in the city of Helsinki. Palvelukeskus Helsinki is a public utility that provides among telerehabilitation, other health care services remotely i.e., safety phone. (Helsingin kaupunki, 2022)

Individual telerehabilitation has been piloted in Helsinki Hospital (in Finnish, Helsingin sairaala) for the home care patients and for the patients leaving hospital. The results have been positive. To enable this, 25 telerehabilitation devices were acquired in 2018.

Investment in equipment did not still bring the results of the increased usage of telerehabilitation (Helsingin kaupunki 2021, 2018a). The wider introduction of telerehabilitation is in line with the goal of improving the competitiveness of the Social and Health Care business plan through the modernization of services and practices, and the addition of digitalization and mobile work tools.

Telerehabilitation can be organized with Palvelukeskus Helsinki's devices or with physiotherapy unit's own devices. Initiative to start telerehabilitation comes from the evaluation of physiotherapist or from colleague, sometimes the proposal can be from home care. Telerehabilitation period is held by the physiotherapist in charge. Practices lay heavily on mutual understanding, rather than a structured process. Every physiotherapist looks after their own scheduling when it comes to telerehabilitation and patients. (Kotikuntoutus, 2022)

Home care's own devices provide remote care, which involves audio- and video transmitted care service. Healthcare professionals can contact the client remotely at the agreed times. Physiotherapy can use these devices as well, therefore the device conducted by the physiotherapist is not needed. This increases efficiency and saves time as the device is already at patients' disposal. Home care's devices are planned for customers that need help in daily living, but somewhat manage themselves. They might need reminding with medicines or other health care related issue. (Kotikuntoutus, 2022; Palvelukeskus Helsinki, 2022).

Telerehabilitation is given in a decentralized manner in the city of Helsinki hospitals and in home physiotherapy, according to the present operational model. The decision or referral to telerehabilitation is typically based on an assessment performed by the physiotherapist or a colleague. The telerehabilitation period is normally completed by the therapist who performed the evaluation or in certain circumstances by a colleague although the processes are based on mutual agreement among the colleagues rather than a generic approach. Each physiotherapist is in charge of their own appointments for telerehabilitation. The present state of telerehabilitation process is represented in Figure 1.

Telerehabilitation period lasts up to 4 to 6 week. Longer periods can be available, but it is not definitive. After a rehabilitation period, the physiotherapist that has started the period usually makes a control assessment to see, if the objectives that are agreed with

the patient is met. Patient's age, condition and functional abilities varies, but Homerehabilitation unit's patients are mostly elderly people.

Telerehabilitation, can be transmitted to home care's devices or physiotherapy unit's own devices. If the patient has telecare, telerehabilitation can be transmitted into their devices regardless. If the patient is not a customer of home care, physiotherapy can offer a loan device for the rehabilitation period.

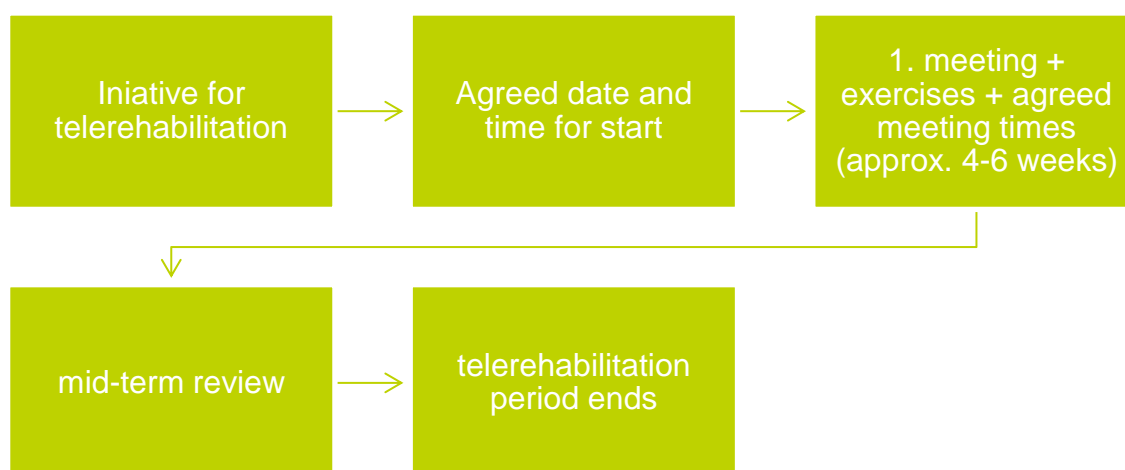


Figure 1. Telerehabilitation process simplified

4 Study purpose, aims and method

The purpose of this study was to produce knowledge on telerehabilitation process in Homerehabilitation unit in the city of Helsinki. The purpose was to identify strengths and weaknesses regarding telerehabilitation process and how employees are experiencing the usage of telerehabilitation.

The study method was qualitative that used interviewing as research method. Interviewing questions were open, which established free and open environment to fully understand the phenomena and experiences behind the subject. This kind of method aims to understand different viewpoints around the subject and give a true description of the phenomena. (Tuomi & Sarajärvi, 2018)

The results were analysed with content analysis, which can be described as the main analysis for qualitative method. (Tuomi & Sarajärvi, 2018) The theme questions (Appendix 3), made the frame for the research. The questions were designed to fit the employees that had used telerehabilitation in their work and had knowledge about the process. Questions were asked in Finnish.

4.1 Research aims

The aim of this study is to find ways to support and improve usage of telerehabilitation as an effective and easy-to-use rehabilitation form. The aim of this study was to show how the telerehabilitation process is experienced and what are the key objectives that should be improved.

The objectives of this study are:

- how employees experience the use of telerehabilitation
- how would employees improve telerehabilitation (process)

The sub-questions for this study:

- challenges and benefits with telerehabilitation
- experiences digitalization and work well-being

4.2 Research method

The goal of this research was to learn more about how physiotherapists feel about telerehabilitation and what could be done to make the process better. Unlike a quantitative research method, the qualitative method allows the researcher to focus on the words rather than the quantification of the data, allowing them to go deeper into the underlying themes and truly grasp the participants' ideas, feelings, and impressions. (Bryman, 2012)

This study uses qualitative research as its base. In qualitative research, analysis method is often chosen between inductive and deductive method. This interpretation is based on the reasoning logic used. Inductive analysis is framed from individual to general, as in deductive is from general to individual. (Tuomi & Sarajärvi, 2018, p. 80) This research analysis uses inductive method.

The research material was analysed by data-based analysis that used inductive content analysis. In qualitative research, the participants answer in semi-structured or structured interviewing questions. Answering regarding the subject can be done entirely freely. Participants will express their opinions and thoughts about the given subject. This kind of research method allows more deep understanding about the phenomena at hand (Brinkmann, 2013; Tuomi & Sarajärvi, 2018).

Interviewing is adaptable and provides the researcher with a wealth of information from the participants. This was appropriate for this thesis' study and provided another justification to use a qualitative technique. Semi-structured interviews allow the researcher to ask follow-up questions if necessary and focus on what the interviewee means with the supplied responses, allowing the researcher to go deeper into themes raised by the interviewee that were not included in the initial interview guide. The researcher does not lead the interviewee to a response that is expected, predicted, or desired by the researcher by using open-ended questions (Bryman, 2012).

However, the theme and theming is not always simple. Hirsjärvi and Hurme (2015) explains that the theme is frequently a concept or aspect that emerges from repeated analysis of the material and is shared by other interviewees. Even though the perspectives are easily grouped into the same category, it is doubtful that interviewers will provide exactly the same opinion.

The research material was consisted of experiences of using telerehabilitation of physiotherapists in the Homerehabilitation unit and it was collected in 2021, by using a semi-structured interviewing. Participation to interview was voluntary.

4.3 Sample and data gathering

A total of 47 invites to participate in the interview were sent out, and 11 people answered. The interviews took place either in person at the company's premises or via Microsoft Teams. All interviews were conducted during business hours and were audio recorded. The interviews lasted anything from 30 to 90 minutes. The duration of the interviews varied depending on how many follow-up questions were asked and how talkative the interviewees were. Before the interview began, the interviewer reiterated the basic information that had been sent to the interviewees prior to the interview, such as the reason for the interview, the nature of the interview, informing that the interview would be recorded and transcribed, and assuring the interviewee's confidentiality and anonymity.

Despite the fact that the thesis is written in English, the interviews were performed in Finnish since it is the respondents' native tongue and a common language between the interviewer and the interviewees. The interview translations were done by the thesis author. No one but the thesis author has had access to all of the interview documentation.

When the sample size is limited, each interviewee's response has a greater influence than if the sample size were larger. Even though 20% of the employees were questioned, the sample size of this study was modest, making it more difficult to draw meaningful conclusions from the interviewers' responses. In qualitative study, the sample size is limited due to rather understanding the phenomena, than making statistical connection. (Tuomi and Sarajärvi, 2018)

The findings of a qualitative content analysis cannot be applied to a large group of people. A bigger sample size would be necessary for generalizability. In comparison to multi-case studies, single case studies are rarely generalizable. The results of this study may be regarded non-generalizable and inadequate for creating scientific theory because it is a single case study using a specific methodology. The findings of this study may be relevant to other studies of a similar sort because there are many similar studies. (Tuomi and Sarajärvi, 2018).

As the thesis author and interviewer, as well as an employee in the unit and knowing the interviewees, this may be seen as compromising the research's trustworthiness, but it also aids in understanding the working life culture and the interviewees' responses. Although this may not have been totally avoided, it was intended not to expose the thesis

authors' personal beliefs during the interviews or enable them to influence the composition of the interview questions, and the interviewees' replies may have been influenced as a result.

4.4 Content analysis

Data-driven content analysis is the use of several concepts to come up with a solution to a problem. Interpretation and reasoning are used in content analysis. The researcher seeks to comprehend the subjects from their own point of view at all phases of the investigation. The goal of content analysis is to extract a clear, coherent, and cohesive collection of data from the provided material, allowing conclusions to be drawn about the phenomena under investigation. (Tuomi & Sarajärvi, 2018)

The reduction of data, grouping of data, and formation of theoretical conceptions of data are the steps of content analysis, according to Tuomi and Sarajärvi (2018). A qualitative study's data is generally rather extensive. Reduction eliminates material that isn't important to the study. The material is squeezed or split into sections when it is reduced. The open textual material is searched for expressions that describe the study task, and they are coloured with a certain colour, for example. The original expressions coded from the material are examined and comparable and/or dissimilar concepts are looked for by grouping the content. Different categories, which are subcategories of the ideas, are formed by grouping and combining concepts that describe the same phenomena. (Tuomi & Sarajärvi 2018.)

The categories and subcategories are established as the coding process progresses. Since qualitative research materials are so varied, they may be coded in a variety of ways. As a result, the researcher has a hand in coding since she or he sets the decisions. The researcher creates and names the categories and sub-categories, and they are not present in the data as such. (Eskola & Suoranta, 2008)

The interviews were taped in order to transliterate them. When the thesis is finished, the recordings will be destroyed. The identity of persons questioned will not be exposed at any stage throughout the thesis process, and they will not be able to be recognized as finished work. Participation in the interview, and hence participation in the study, is entirely optional, and participant is free to end it at any moment. The thesis will be published

using the Theseus system, and the findings can be used in reports, seminars, and training days.

Employees from the Homerehabilitation unit provided information for this study. The literature in the topic will be used to build the background and theoretical foundation.

Coding is a necessary aspect of a content analysis. Coding is a method for identifying themes and their links by arranging data. Parts of data are mixed and differentiated based on a characteristic. Similar aspects are grouped together, and this category is given a name based on a shared characteristic. Coding can help to simplify a wide range of distinct and unique content. It's critical to acquire the information in a usable format. (Eskola & Suoranta, 2008)

5 Results

Exactly 11 participants out of 47 were ready to participate in the interview. This accounts for around 23% of the total. In results, main topics that rose from the interviewing data were in line with studies that were done in similar theme. The findings revealed the advantages of digitalization, such as greater productivity and interests in the new topic. However, the interviews also revealed several issues, including technology challenges, paperwork, a lack of knowledge of the process and an unclear work method, as well as a lack of assistance.

Most of the participants thought telerehabilitation was a useful option. Almost all, however, emphasized the difficulty of the work process, the excessive number of work processes, and the appearance of ambiguity as a distraction to the client.

Specifically meaning with this that before the telerehabilitation, loan papers and information must be filled on paper and in the patient software. Then a manual waiting list on the wanted device must be looked out for, to name a few. Taking this into consideration, the task seemed complicated.

The introduction of too many workflows or tools in a short period of time was also mentioned by respondents. Insignificant work tasks relating to the work process may occur in an irrational order for interviewees. Many respondents, on the other hand, appreciated

the fact that the implementation of telerehabilitation was familiar with a designated individual who got assistance throughout the work process.

Telerehabilitation was shown to be beneficial in reducing workload in general, as it untied employees to do more clients, when the rehabilitation itself was performed by another physiotherapist that is specialized in telerehabilitation. However, starting telerehabilitation is simple for the patient, but difficult for the staff, according to the interviews.

Suoraviivaisesti kuvattuna tää prosessi on asiakkaalle yksinkertainen, mutta työntekijälle ei ole sit yhtään yksinkertainen.. jos kuvaillaan toiselle ammattilaisella tai vaikka uudelle työntekijälle tää prosessi, jossa on lupalaput ja lainat ja muut, siinä on paljon sellaista, joka kuulostaa kyllä, noh, työllistävälle

Free translation / Described in a straightforward way, this process is simple for the client, but it is not at all simple for the employee

Physiotherapists have also noticed both good and bad consequences of beginning a telerehabilitation approach on their own attitudes.

The beginning of the telerehabilitation procedure was clearly aided by an open and welcoming attitude. Despite their positive outlook, individuals who considered telerehabilitation to be an essential aspect of their job were negatively impacted by the problems of technology's functionality.

Due to the reduced hearing of the elderly, physiotherapists believe that there should be more gadgets and that more devices should be equipped with a speaker. In addition, physiotherapists expressed a desire for lengthier telerehabilitation sessions, implying that the scheduled duration of physiotherapy would be longer.

Some believe that if there had been more support professionals involved in the process, the shift to telerehabilitation might have gone more smoothly.

Nyt on aika sekavat tunnelmat, ennen Apottia oli positiivisemmat. Kaikki uusi tuottaa tietysti aina haasteita, ja aina ei huomaa hyötyä joka voi näyttäytyä positiivisena vaikka vuoden päästä, mut täytyy muistaa, et digitalisaation opettelu vie aikaa niin sanotusti normityöstä. Haaveilen kyllä että silleen lisä digitalisaatiosta, kohta meillä on ikääntyvää väestöä jotka pystyy hyödyntää paremmin digitalisaatiota kuin ehkä juuri nyt asiakkaana olevat... Voidaan palvella paremmin, laajemmin ja nopeammin asiakkaita digitalisaation avulla. Ollaan välimaastossa nyt, niin on aika raskasta työntekijälle, koska epävarmuutta.

Free translation / At the moment there are quite mixed feeling, before Apotti it was more positive. With everything new there will always come challenges and at first one might not notice the benefit what can example see after a year, and one must also remember that learning digitalization takes away time from the "normal work". I could say that I dream about more digitalization when we have aging population that can use digital (devices) better than the patients at the moment... In that way we can give better service and also with much faster (time period) We are now in the middle where it is quite heavy for the employee and a lot of uncertainty

Employees believed that by examining the process, they would be able to minimize the quantity of paperwork involved. Physiotherapists also hoped that each person would have their own equipment that they could carry to the customer. Physiotherapists complained that keeping track of loaned equipment and which devices were available was time consuming.

Oon kokenut etäfysioterapian erittäin mielenkiintoisena ja kivana. Lähinnä sen takia, että ihmiset ja asiakkaat, ne tuntuu siltä että tää etälaite antaa tälle fysioterapialle jotain vähän niinku extraa. Oon huomannut kans, että asiakkaat keskittyy paremmin siihen mitä tehdään ja mitä puhutaan.

Free translation / I have experienced telerehabilitation very interesting and fun. Mainly because people and the patient feel telerehabilitation gives the physiotherapy something extra. I have also noticed that patients will concentrate better in what to do and what we speak.

The delivery of the equipment to the patients before the therapy began appeared to be extremely time-consuming. The gadget had to be charged and updated the day before it was delivered to the patient, along with the loan papers and the presence of the physiotherapist doing remote treatment. The program of exercises used to be done by the person who made the loan, but today it is done by a designated physiotherapist who meets with the client through video link. As shown, transferring equipment to clients takes time.

...monia laitteita ei ole käytetty ollenkaan. Että yleisesti ottaen onko se prosessi hankala vai se, että kun ei ole just sitä laitetta omassa hallinnassa niin ei tule tehtyä etäfysioterapian jaksoja.

Free translation / ... most of the devices have not been used at all. So in general is the whole process difficult, when one does not have own device then maybe one can will not start telerehabilitation periods.

When it comes to expanding digitization, the majority of the participants are optimistic. There are a lot of things where digitization can't replace human connection, but there are

also a lot of things where it can. Almost all of the participants agreed that digitization is beneficial, since it may minimize paperwork and be a more ecologically friendly alternative to old working methods.

Tykkään siitä (digitalisaation lisääntymisestä) koska se vähentää paperin käyttöä eli jo ihan ympäristö näkökulman kannalta ja sit toi reaaliaikaisuus.

Free translation / I like it (increasing digitalization) because it reduces usage of paper so even from the environment point of view and then because it is real time.

The participants believe that the service's content is obvious, but that standard methods for creating goals and utilizing indicators, for example, are lacking, which is reflected in the difficulties in evaluating the success of physiotherapy during the final evaluation.

The use of time, prioritization, and equity of work, increased workload and well-being at work, sharing responsibilities and cooperation between different actors, as well as the development of uniform practices and shortcomings in practices, were the biggest challenges in the current service path, according to the participants.

Participants felt that assessing the need for telerehabilitation is difficult because to the existing hectic pace of work, the increased burden, and the enormous volume of customers.

These, together with the additional abilities required for telerehabilitation, offer a challenge to functioning and well-being at work. The time spent borrowing and returning the item was seen to be difficult to balance with other client work. Furthermore, at times, the distribution of responsibility among the many actors in this issue has been unclear. Furthermore, according to the participants, tablets given to consumers may not always have up-to-date stock information visible to everyone, and this is not organized by any designated person.

The telerehabilitation service was designed for people with good sensory functioning and cognition who had trouble leaving their homes. The most essential factor was one's own drive to develop or retain one's capacity to operate and be engaged in everyday life, regardless of age or other needs for service. However, the interviews also revealed that experience of patients that had been inactive long time became active after an intensive

rehabilitation period with telerehabilitation. As it was described, it offered physical activity but also meaningful encounters with patient and the involved physiotherapists.

It is expected that in the future that there will be more rehabilitators who are already familiar with the technology, allowing telerehabilitation to grow and maybe become more accessible and possibly accessed from their own devices. A lot of private sectors physiotherapy companies are providing this kind of method for example via Teams, or another software that offers video meeting possibility. However, this is not the most practical or professional way.

Main theme	Subcategory	Simplifications and codes
Experience of tele-rehabilitation process	Interest and attitude	On paper excellent, a lot of difficulties in reality Frustration Burdensome for the employee, many things to consider Patient enjoys, "newness" Mental strain Complicated logistics
Telerehabilitation challenges	Telerehabilitation is an excellent tool with adjustments	New task and possibilities Suitability, attitude Connection problems
	Unclear instructions of the process	No support persons preconception A lot of paperwork Complicated process Digital learning Different therapist to conduct the therapy Device installing and update Individual rehabilitation
Telerehabilitation strengths	Excellent tool Telerehabilitation makes privacy possible In the future there is more patients that can already use technology	continuance Distance Saves time Experience Installing device Technological issues Good feeling after successful rehabilitation period attitude, suitability more patients patient's focus more interested patient's excellent tool

Propositions for the process	No paperwork More equipment Loan information and other paperwork could be done electronically One person per area to do evaluation and to install the telerehabilitation devices for patients	Paperwork Unclear process Not enough devices Loan information Target group Simplified instructions every device should have a speaker device and software development threshold to cancel appointment Support person, professional hotline
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Figure 2. Content analysis coding

There were a few key takeaways for improving the telerehabilitation process in Homerehabilitation unit. This study does not evaluate if the changes or improvements are possible but addresses these as a possible targets and objectives for the future. The expenses of these enhancements, for example, have not been taken into consideration in the study and they will deliver the results of the interviews in a clear and concise manner.

The majority of respondents stated that the loan system could be simplified, and that loan paperwork be reduced. Furthermore, more equipment might make the process easier by eliminating the need for employees to wait for devices to become available. One idea was that a person committed to evaluating potential telerehabilitation patients be created. This would very certainly need a pilot. To highlight, several respondents said that it is also beneficial for everyone to be able to perform the telerehabilitation evaluation since it allows more patients to get it.

The results also revealed a need for a support person who would be able to rapidly assist with the process's inconvenient aspects. Palvelukeskus Helsinki providing the devices could most of the time provide help and for example update packages remotely to the devices, but it was stated that in some cases that was not enough. Technological issues were mentioned quite often.

6 Discussion

The city of Helsinki wants to reform and improve digital services by investing in their growth, which will be led by factors such as accessibility, efficacy, and employee well-being, as well as chances to participate in the development process. However, services should not be digitized solely for the sake of utilizing technology; rather, it is necessary to consider the added value that technology delivers to the service's offering or to its clients. (Helsingin kaupunki 2018)

The purpose of this study was to provide insight in the new digital era that rehabilitation and especially rehabilitation unit in city of Helsinki is growing into. The interviews yielded many positive elements, viewpoints, and suggestions, though execution of these new concepts will still be required. Employee involvement, study of work processes, and fast changes to work stages should all be part of any new tool's implementation.

In the future, as well as in physiotherapy, digitalization will play a significant role. It will be possible to deliver rehabilitative services to an increasing number of patients, as well as cost-effective and workload-friendly solutions, thanks to digitalization. Employee involvement is likewise critical, as is customer-focused consultation. Digital abilities will be required of both employees and customers in the future.

There has been a lot of study and thesis done on telerehabilitation and its prospects. The effectiveness of telerehabilitation is undeniable, and practically all studies suggest it as a choice alongside the traditional physiotherapy. Many new technologies have been implemented, particularly after the pandemic breakout.

This study was conducted in 2021 summer and the final study will be reported in 2022. In that time, changes regarding this study is most likely already made.

There's still a lot to learn, particularly when it comes to employee perceptions about telerehabilitation and how to implement it. When it comes to implementing new tactics, leadership, the working environment, and attitudes all play a role. Is everything viable to place remotely, for example?

It was also exciting to see in the study that individuals were eager to incorporate new physiotherapy methods, but that there was just not enough time. Many of those questioned believed that the area of physiotherapy is already so vast that deploying a large instrument like telerehabilitation necessitates the use of specialized professionals.

Perhaps in the future, patients will be able to get telerehabilitation on their own devices, and there will be more possibilities for remote treatment. It will also strengthen the patient's commitment to the exercises and to their own well-being as the accessibility is not co-dependent on the place or time.

The research was conducted in accordance with acceptable scientific practice, polytechnic ethical recommendations for theses, and the ethical principles in human research. (Tutkimuseettinen neuvottelukunta, TENK) (ARENE, 2020). Physical integrity was not addressed in the study which did not constitute a security issue.

The study applied for research plan and approval in accordance with the city of Helsinki, and it was approved for this thesis in 17.6.2021. The subjects' consent to the study was based on comprehensible information from the study, including the content, purpose, and implementation of the data, as well as the processing of personal data and material. For the preparation of a study plan, the researcher got familiar with EU data protection rules and the standards set out by the Data Protection Act (1050/2018) as well as the Research Ethics Advisory Board's ethical principles of research (TENK 2021). Participation was entirely freely, and interviews held during working time.

Each employee chose whether or not to participate in the implementation phase. Participants were contacted for interviews by management representative, who also gave them a cover letter prior to the interviews (Appendix 2). Each participant was told what the study is about and for what reason it is done, the parties involved, and the study results used at the start of the interview, in accordance with acceptable scientific procedure. In addition, the participants were fully informed in the cover letter and throughout the interviews about how their personal information would be protected. It is impossible to link the people who took part in the final study.

The research material was collected only for this YAMK study. After the work was completed, the study materials were destroyed. The study is published on Theseus, as according to the cover letter. Research related to the thesis evaluation methods are selected in an ethically sustainable manner and the source of information was respected (ARENE, 2020).

For the interview, no personal information was requested. Only an email address was necessary for video conferencing and to convey the interview time when consent to the processing of personal data was required under the Data Protection Act (in Finnish, Tietosuojalaki). The aim of the personal data, the processing, and the data subject's rights were all explained to the subjects in the cover letter.

According to the criteria of the city of Helsinki's social and health care business, a research permission was filed for the thesis project. The study author did not spend any expenditures linked to the thesis project other than the working time costs associated with the involvement of the staff.

The gathering of material and citations was done by the author in such a way that the original source was respected. The sources that the author used have been labelled as appropriate. The Turnitin service was used to detect plagiarism which ethical guidelines are in line with the thesis. The final thesis is open to the public and will be published on Theseus with a separate copy provided to the working life partner. (ARENE, 2020)

7 Conclusions

In the future, digital and digitalization will possibly play even a bigger role and it will be necessary that the employees have more digital competences than ever before. Attitude and open mindedness when it comes to trying out new processes', softwares' and even devices, is crucial.

Work on development may also take precedence over other tasks. In the workplace, the trend is to improve all aspects to the point that there is no time left to master new skills. The goal is admirable, but it is influenced by its own complexity. Understanding this, the puzzle of implementing new working tools and processes that focus on answering the growing need of patients that require professional evaluation becomes multi-layered.

Special competence in telerehabilitation, as well as the visibility and promotion of telerehabilitation, might be future study areas. Different patient groups studies that benefit telerehabilitation might potentially give useful information.

In conclusion, operational model and the related tasks on telerehabilitation can be even more structured and new innovations came upon from the interviews that could be utilized in the future. Employees were eager to participate into the development.

When implementing a new service model and/or process, hearing of employees is crucial. Processes that are inoperable or burdensome should be able to be developed or adjusted quickly. It's also a good idea to get rid of bad work habits and regularly ask the staff what parts of the work processes seem burdensome and what can be achieved with minor adjustments.

The management's dedication and support have a considerable influence on the deployment of technology solutions, as well as their attitude and the purpose of their job. To conclude, support or advisor person to the new process can be considered to give employees more structured, organized and planned work process. It can also offer employees the feeling that they are supported and needed and that they are not alone if problems or setbacks arise.

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Appendix 1: Cover letter

Saatekirje
ARVOISA VASTAANOTTAJA

Opiskelen Metropolia ammattikorkeakoulussa Terveysalan liiketoiminnan johtamista (Health Business Management, ylempi amk) sosiaali- ja terveysalalla.

Teen opinnäytetyönäni teemahaastatteluihin perustuvan tutkimuksen, jossa tutkin fysioterapiaosaston työntekijöiden kokemuksia etäkuntoutuksesta ja sen prosessista Helsingin sairaalan Kotikuntoutuksessa.

Tutkimuksen tarkoituksena on selvittää, millä tavalla henkilöstö kokee etäkuntoutuksen prosessin sekä prosessin kulun, sekä millainen mahdollinen vaikutus sillä on työhyvinvointiin.

Pyydän kohteliaasti, että osallistuisit Fysioterapian Kotikuntoutuksessa toteutettavaan teemahaastatteluun, johon etsin 6-8 kpl haastateltavia fysioterapeutteja. Opinnäytetyö tehdään laadullisena (kvalitatiivisena) tutkimuksena. Aineisto kerätään teemahaastatteluin, jossa kysymykset liittyvät etäfysioterapian prosessin kokemuksiin. Haastattelutilanteessa on yksi työntekijä kerrallaan ja haastattelukertoja on 1.

Haastattelut nauhoitetaan niiden myöhempää litterointia varten. Haastattelussa ei esitetä henkilötietoja koskevia kysymyksiä. Haastatteluun osallistuvien henkilöllisyys ei tule ilmi missään opinnäytetyöprosessin aikana, eikä voida tunnistaa valmiista työstä. Haastatteluun osallistuminen on täysin vapaaehtoista. Kieltäytyminen ei vaikuta kohteluun työyhteisön jäsenenä. Haastattelun voi halutessaan keskeyttää koska tahansa syytä ilmoittamatta. Haastatteluun osallistuminen ei maksa mitään. Osallistumisesta ei myöskään makseta korvausta. Nauhoitukset ja litteroinnit säilytetään tietoturvalisestisesti eikä muilla kuin allekirjoittaneella ole pääsyä materiaaliin. Nauhoitukset sekä litteroinnit tuhoetaan, kun opinnäytetyö on valmis.

Opinnäytetyö julkaistaan Theseus- järjestelmän kautta. Opinnäytetyön tuloksia voidaan käyttää raporteissa tai koulutuspäivillä.

Opinnäytetyön ohjaajana toimii lehtori Juha Havukumpu (juha.havukumpu@metropolia.fi)

Ystävällisin terveisin
Fysioterapeutti / YAMK opiskelija Oona Björklund (xxxx@metropolia.fi / GSM:
050xxxxxx

Appendix 2: General Data Protection Regulation, GDPR

Rekisteri- ja tietosuojaseloste

Tämä on ylemmän ammattikorkeakoulun opinnäytetyön EU:n yleisen tietosuoja-asetuksen (GDPR) mukainen rekisteri- ja tietosuojaseloste. Laadittu 15.06.2021. Viimeisin muutos 15.06.2021.

1. Rekisterinpitäjä

Oona Björklund

xxxx@metropolia.fi

2. Rekisterin nimi

Telerehabilitation in physiotherapy. Haastateltavien haastattelunauhat.

3. Oikeusperuste ja henkilötietojen käsittelyn tarkoitus

EU:n yleisen tietosuoja-asetuksen mukainen oikeusperuste henkilötietojen käsittelylle on henkilön suostumus. Suostumus on vapaaehtoinen, joka kysytään jokaisen haastattelun alussa.

- henkilön suostumus (dokumentoitu, vapaaehtoinen, yksilöity, tietoinen ja yksiselitteinen)

Henkilötietojen käsittelyn tarkoitus on tuottaa opinnäytetyö, jossa tarkastellaan osallistujien kokemuksia sekä mielipiteitä etäkuntoutukseen liittyen.

Tietoja ei käytetä automatisoituun päätöksentekoon tai profilointiin.

4. Rekisterin tietosisältö

Rekisteriin tallennettavia tietoja ovat: henkilön ammatti, yritys/organisaatio, haastattelunauha. Tietoja säilytetään vain sen aikaa, että haastattelut saadaan litteroitua. Haastateltavien nimi ei tule ilmi haastatteluissa eikä häntä voida tunnistaa muuten haastatteluista. Haastatteluun osallistuminen on täysin vapaaehtoista ja haastateltava voi koska tahansa keskeyttää osallistumisensa syytä ilmoittamatta. Haastattelut tuhotaan opinnäytetyön valmistuttua. Tiedot pyritään anonymisoimaan jo haastattelutilanteessa.

Haastattelut pyritään keräämään vuoden 2021 aikana. Opinnäytetyön suunniteltu valmistumisaika on 2022 keväällä. Rekisteri tuhotaan opinnäytetyön valmistuttua. Valmis

opinnäytetyö julkaistaan Theseus.fi järjestelmässä. Haastateltavia ei voida missään vaiheessa tunnistaa. Haastattelut kerätään litterointia varten, jonka jälkeen vastauksia analysoidaan sisällönanalyysillä.

5. Tietojen säännönmukaiset luovutukset ja tietojen siirto EU:n tai ETA:n ulkopuolelle

Tietoja ei luovuteta säännönmukaisesti muille tahoille.

Tietoja ei siirretä Yhdysvaltoihin ilman rekisteröityjen nimenomaista suostumusta.

6. Rekisterin suojauksen periaatteet

Rekisterin käsittelyssä noudatetaan huolellisuutta ja tietojärjestelmien avulla käsiteltävät tiedot suojataan asianmukaisesti. Rekisteritietoja säilytetään Internet-palvelimilla, niiden laitteiston fyysisestä ja digitaalisesta tietoturvasta huolehditaan asiaankuuluvasti. Rekisterinpitäjä huolehtii siitä, että tallennettuja tietoja sekä palvelimien käyttöoikeuksia ja muita henkilötietojen turvallisuuden kannalta kriittisiä tietoja käsitellään luottamuksellisesti ja vain tutkimuksen tekijän toimesta. Tiedot hävitetään heti opinnäytetyön valmistuttua.

7. Tarkastusoikeus ja oikeus vaatia tiedon poistamista

Jokaisella rekisterissä olevalla henkilöllä on oikeus tarkistaa rekisteriin tallennetut tietonsa ja vaatia mahdollisen virheellisen tiedon korjaamista tai puutteellisen tiedon täydentämistä. Mikäli henkilö haluaa tarkistaa hänestä tallennetut tiedot tai vaatia niihin oikaisua, pyyntö tulee lähettää kirjallisesti rekisterinpitäjälle. Rekisterinpitäjä voi pyytää tarvittaessa pyynnön esittäjää todistamaan henkilöllisyytensä. Rekisterinpitäjä vastaa asiakkaalle EU:n tietosuoja-asetuksessa säädetyssä ajassa (pääsääntöisesti kuukauden kuluessa).

8. Muut henkilötietojen käsittelyyn liittyvät oikeudet

Rekisterissä olevalla henkilöllä on oikeus pyytää häntä koskevien henkilötietojen poistamiseen rekisteristä ("oikeus tulla unohdetuksi"). Niin ikään rekisteröidyillä on muut [EU:n yleisen tietosuoja-asetuksen mukaiset oikeudet](#) kuten henkilötietojen käsittelyn rajoittaminen tietyissä tilanteissa. Pyyntö tulee lähettää kirjallisesti rekisterinpitäjälle. Rekisterinpitäjä voi pyytää tarvittaessa pyynnön esittäjää todistamaan henkilöllisyytensä. Rekisterinpitäjä vastaa asiakkaalle EU:n tietosuoja-asetuksessa säädetyssä ajassa (pääsääntöisesti kuukauden kuluessa)

Appendix 3: **Semi-structured interview frame**

How would you describe the process of telerehabilitation initiative? / Miten kuvailisit etäfysioterapian prosessin aloitusta?

Who is the customer group that you feel benefits the most of telerehabilitation? / Mikä/ millainen asiakasryhmä hyötyy sinusta eniten etäfysioterapiasta?

How have you experienced working with telerehabilitation? / Miten olet kokenut etäfysioterapian parissa työskentelyn?

What do you feel are the benefits and challenges regarding the telerehabilitation process? / Mitkä koet olevan hyödyt ja haasteet liittyen etäfysioterapian aloitukseen ja prosessiin?

What would you change in the telerehabilitation process if you could? / Mitä muuttaisit etäfysioterapian prosessissa jos voisit?

How would you describe the telerehabilitation process differ from the traditional rehabilitation that occurs at patient's home? / Miten kuvailisit etäkuntoutuksen prosessin eroavan perinteisestä kuntoutuksesta potilaan kotona?

How could the process of telerehabilitation be improved in the future? / Miten etäkuntoutuksen prosessia voitaisiin tulevaisuudessa kehittää?

How do you feel about the increasing digitalization in your working field? / Miten koet lisääntyneen digitalisaation omalla työkentälläsi?

What features would you see important when it comes to telerehabilitation? / Millaiset ominaisuudet (terapeutissa) ovat tärkeitä etäkuntoutuksen osalta?

How do you experience telerehabilitation with patients compared to face-to-face rehabilitation? / Miten koet etäfysioterapian asiakkaiden kanssa verrattuen kasvokkain tapahtuvaan fysioterapiaan?