

# Move it to improve it (Mitii) - Individualized web-based training for patients with stroke

## Explorative interviews

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"...imagine if it [Mitii, ed] made all the difference. I do not know how everything would have been, if I hadn't had Mitii" (Individual interview, P11)

### INTRODUCTION

#### Move it to improve it (Mitii)

is a web-based exercise program, that has been designed to meet the latest recommendations for neurorehabilitation.

The effect of Mitii as a supplement to standard occupational- and physiotherapy in patients with stroke had been investigated in a randomised controlled cross-over study.

The patients trained daily with Mitii for 16 weeks and the training was monitored and adjusted by occupational- and physiotherapist (Figure 1)

#### Purpose

To explore the patients' experience with Mitii as a supplementary training method. To explore the experiences and role of the relatives during the Mitii training.

### METHODS

- A qualitative study with semistructured individual interviews and semistructured focus group interviews with a hermeneutic approach.
- Qualitative content analysis was used to analyse the data and was performed independently and in parallel processes.
- A purposeful sample of patients and their relatives were recruited between October and December 2016.

### RESULTS

- Saturation was reached after 12 individual interviews and 2 focus group interviews with four spouses in each focus group interview.
- Inclusion of the participants is shown in figure 2 and clinical characteristics in table 1.
- The content analysis revealed four major themes for the individual interviews and three major themes for the focus group interview (Table 2).

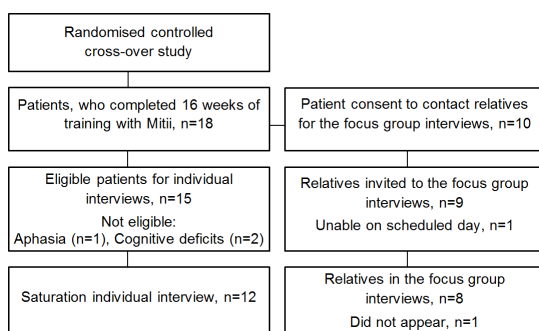


Figure 2. Flowchart of the inclusion. The patients were recruited from the randomised controlled cross-over study among the patients who had completed 16 weeks of training with Mitii. Patients gave oral consent to contact their relatives.

	Patients (n=12)	Spouses (n=8)
<b>Gender</b>		
-Male (n, %)	7	2
<b>Age, years (mean, range)</b>	66 (45-80)	70 (62-80)
<b>Employment status (n, %)</b>		
-Working	4	2
-Retired	8	6

Table 1. Clinical characteristics of patients and their spouses

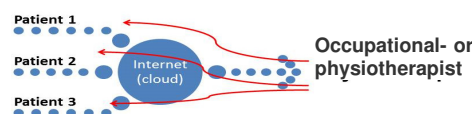


Figure 1. Set-up of Mitii training program. A Kinect unit registers movements to computer training. Each patient gets weekly feedback and adjustment of programme by an occupational- or physiotherapist, who monitor progress for several patients via the internet.

Individual interviews	Focus group interviews
<ul style="list-style-type: none"> <li>The technical aspect</li> <li>Motivation of the patients</li> <li>Web-training as supervised self-training</li> <li>Everyday life after stroke</li> </ul>	<ul style="list-style-type: none"> <li>Involvement of relatives and their relation to the health professionals</li> <li>Mitii – exercises and the program</li> <li>The family life after stroke</li> </ul>

Table 2. Major themes for the individual interviews and the focus group interviews.

- The majority of the patients experienced technical problems with set-up of the equipment, problems with the Mitii-program freezing during the exercises and problems with the Kinect.
- Mitii was seen as an opportunity for a better outcome in regaining function and empowered the patients to affect their own rehabilitation positively.
- The support from the spouses was important and some of the patients wouldn't have been able to complete the program without the support from their spouses.
- The daily training with Mitii became a natural part of their everyday life.
- Both patients and spouses expressed a need for more support especially regarding set-up of the equipment and feedback on how the exercises was performed.
- In general the patients' saw Mitii as a supplement to the more specific rehabilitation with the occupational- and physiotherapists.

### CONCLUSION AND PERSPECTIVES

Web-based exercises with Mitii increased the possibility for more training for patients with stroke and their relatives had the opportunity to help and support them, despite the technical problems.

Use of different technologies and videogames as a supplement in neurorehabilitation is relevant to develop further. It is important to focus on how supervision, feedback and contact to occupational- and physiotherapist can be more integrated.