## Talking Touch screen

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<tr>
<th>Category</th>
<th>Description</th>
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<tbody>
<tr>
<td>Title of intervention</td>
<td>Talking Touch Screen</td>
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### Objectives

**Objectives IROHLA taxonomy**
- Improving skills of older adults and/or professionals
- To facilitate involvement of individuals at the system level
- Other: Improve quality of care for vulnerable populations

### Short description of the objectives of the intervention

The Talking Touch Screen (TTS) is an application on a tablet developed by TransFysa that helps illiterate and low literacy patients in physiotherapy practice to fill out a questionnaire independently to reduce the threshold to receive quality care for this group. Physiotherapists use questionnaires to find out what the complaints of patients are and how they affect their daily lives. Low literacy people have difficulties with these questionnaires. Changing these questionnaires will lead to a better communication between health professionals and (illiterate) people.

### Target groups

- Vulnerable groups

### Short description of the target groups

The Talking Touch Screen is meant for illiterate people and people with low health literacy (vulnerable groups).

### Problem analysis

#### Scope of the problem

In the Netherlands, approximately 250,000 people are illiterate and half million people are low literate or functionally illiterate. Of this group, about one-third are immigrant and two-third are native. The reading level of most questionnaires appears to be too high for people who have difficulties with reading, writing and arithmetic. Additionally, these people often have less 'knowledge' about health and disease.

#### Consequences for individual and/or society

People with limited health literacy have difficulties with understanding the health care provider and with presenting their complaint. The literature shows that adherence among these patients is lower. Within the health care providers do not always know how to connect to the knowledge and skill level of functionally low-literate patients. This complicates communication between caregiver and patients with limited health literacy.
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<tr>
<td><strong>Distribution of the problem</strong></td>
<td>A low health literacy mostly occurs at immigrants, people with low SES and older adults.</td>
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<tr>
<td><strong>Other information</strong></td>
<td>This project was created by physiotherapists working in disadvantaged areas with people with a low health literacy. They wanted to improve the communication with this group. Helping patients with filling of questionnaires takes time.</td>
</tr>
<tr>
<td><strong>Short description of the modifiable determinants of older adults with respect to this intervention.</strong></td>
<td><strong>Modifiable determinants of older adults</strong>&lt;br&gt;Skills.&lt;br&gt;They want to change the form and content of existing questionnaires, so that illiterate people can fill in these questionnaires independently. This improves communication and the quality of acting on patient-practice and regional level.</td>
</tr>
<tr>
<td><strong>Short description of the modifiable determinants of professionals.</strong></td>
<td><strong>Modifiable determinants of professionals</strong>&lt;br&gt;Not applicable</td>
</tr>
<tr>
<td><strong>Components of the intervention</strong></td>
<td><strong>Components</strong>&lt;br&gt;✓ E-health technology</td>
</tr>
<tr>
<td><strong>Description of components</strong></td>
<td>The Talking Touch Screen (TTS) is an application on a tablet that helps patients to fill out a questionnaire independently. During the project a prototype TransFysA is developed in Dutch and Turkish language. Even patients who have difficulties with reading and writing in the Dutch language and who have never worked with a computer can use this. The TTS is available on a tablet computer in a physiotherapy practice. The patients can fill out the questionnaire in the waiting area or in the practice room. Each question is displayed on a separate screen. The question can be read as the patient wishes this. The patient can demand to see and hear. Through pictures and movies the patient gets support where necessary to understand and answer the questions. The TTS is culture and language-specific.</td>
</tr>
<tr>
<td><strong>Approach</strong></td>
<td><strong>Theoretical models used</strong>&lt;br&gt;The TTS is developed according to the ‘user-centered design’ method. This method allows the needs, desires and capabilities of users at the heart of every part of the design.</td>
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<td>Category</td>
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<tr>
<td>Didactics used</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Techniques used</td>
<td>Simple use of language, visual elements (photos, pictures, movies) and spoken elements.</td>
</tr>
<tr>
<td>Contexts are</td>
<td>A physiotherapy practice (waiting area or practice room)</td>
</tr>
<tr>
<td>Stakeholders involved</td>
<td>The TransFysA project is conducted in cooperation with various parties. The following parties were part of the consortium of TransFysA:</td>
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<tr>
<td></td>
<td>• Lectoraat Leefstijl en Gezondheid</td>
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<td></td>
<td>• Lectoraat Product Design and Engineering</td>
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<td>• TNO</td>
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<td>• NIVEL</td>
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<td></td>
<td>• Werkgroep Fysiotherapeuten Achterstandsgebieden Utrecht (WAU)</td>
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<tr>
<td></td>
<td>• Regionaal Genootschap Fysiotherapie Midden-Nederland</td>
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<tr>
<td></td>
<td>• NIGZ</td>
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<td></td>
<td>• PHAROS</td>
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<td>• UvA</td>
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<td>• AGIS Zorgverzekeringen</td>
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<td>• KNGF</td>
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Type of professionals involved

The content and functionality of the prototype of the Dutch and Turkish-language TTS has been developed with the help of teachers and illiterate participants of the ROC central Netherlands, low-literate visitors of Turkish Mescid-i-Aqsa mosque in Utrecht and the physiotherapists of the Working Group Deprived Utrecht (WAU).
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| Resources and qualifications   | **Duration of the intervention**  
A short duration, about 15 minutes.  
The patients have to fill out this questionnaire at the physiotherapy practice. Just one time, to find out what symptoms a patient has, how he experienced these symptoms and what effect they have on his performance in daily life at home, in his spare time and at work.  

**Financial costs for the implementing organisation**  
They are in the valorisation process of the innovation. Still in the phase of ‘prototype’. The valorisation process should lead to the development of a full product. For this reason they can’t estimate the financial costs of the final product yet.  

**Financial costs for the target groups**  
No financial costs for the target group.  

**Required competencies of professionals**  
Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Implementation                  | **Implementation strategy**  
Change the ‘normal’ questionnaire into a modified TTS version.  
Buy a tablet for the physiotherapy practice.  

**Conditions for effective implementation**  
The availability of a tablet, a questionnaire with the following elements:  
- simple use of language,  
- visual elements (movies, pictures, photos),  
- spoken elements.  

**Stakeholders involved**  
See the stakeholders mentioned above (consortiumpartners) + ROC Midden-Nederland and the Mescid-i-Aksa Moskee.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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## Category Description

### Transferability
They are in the valorisation process of the innovation. Still in the phase of ‘prototype’. The valorisation process should lead to the development of a full product. After that they will make a manual / protocol.

### Evaluation

#### Methods used
- The application is developed with an interim evaluation carried out by the end user.
- The usability of the resulting prototype TTS is tested by twenty Utrecht physiotherapists and their patients. All the physiotherapists first present the ‘normal’ questionnaire to their patients. There was no verbal instruction given. After four weeks they did the same with the TTS. To measure the satisfaction of the patients on the TTS and the normal questionnaire, there were random structured five - minute interviews with patients after they had completed. In total there are 121 ‘normal’ questionnaires distributed to patients and 102 TTS questionnaires.
- They are in the valorisation process of the innovation. Still in the phase of ‘prototype’. The valorisation process should lead to the development of a full product.

#### Evaluation

#### Evaluation

### Effectiveness

#### Main results
- The intervention seems effective. The percentage of illiterate patients that can fill out the TTS independently, is greater than the percentage of illiterate patients who fill out the ‘normal’ questionnaire.
- Physiotherapists and patients are more satisfied with the handling of the Talking Touch Screen (TTS) than of the normal questionnaire.
- Physiotherapists see the added value of this innovation.

### Key elements/components of the intervention that must stay intact in order to have an effective intervention

#### Key elements
- Contemporary, nice lay-out, reverse mode, independency, easy to read, simple use of language, visual elements, the use of (modern) technology.

### Level of evidence

- Expert opinions

### Miscellaneous

#### Relevant information that is not covered through the other categories
They are in the valorisation process of the innovation. Still in the phase of ‘prototype’. The valorisation process should lead to the development of a full product.

### Sector
Private sector

### Country of development
The Netherlands
### Provider

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**Telephone number:** 088 – 1234567 (transfysa)

### Relevant documents/links

**Relevant links**  