

Evaluation of a technology supported rehabilitation program

Published: 16-10-2009

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The objective of the present study is to investigate the user satisfaction, clinical effectiveness, and economic outcomes of the computer supported exercise program.

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Other condition
Study type	Observational non invasive

Summary

ID

NL-OMON35330

Source

ToetsingOnline

Brief title

computer supported exercise program

Condition

- Other condition
- Bronchial disorders (excl neoplasms)

Synonym

chronic pain, non-acut pain, pulmonary diseases, respiratory complaints

Health condition

chronic pain (chronic low back pain and whiplash)

Research involving

Human

Sponsors and support

Primary sponsor: Revalidatiecentrum Het Roessingh

Source(s) of monetary or material Support: Europese Unie

Intervention

Keyword: Chronic pain rehabilitation, computer supported exercise program, COPD rehabilitation

Outcome measures

Primary outcome

The primary study parameters are satisfaction regarding the computer supported exercise program, objective (being fitness, strength and ROM) and subjective (being dyspnoea, fatigue, pain intensity and disability) clinical effect outcomes and economical benefits of the computer supported exercise program.

Secondary outcome

The secondary parameter are patient type of coping strategy and preference regarding the computer supported exercise program.

Study description

Background summary

In 2025, 35% of the Dutch population is above 55 years. Because the risk of a chronic disease increases with age, an increase in the number of patients with chronic disorders is expected. Another negative side effect of aging is a decrease of the work population and the decreasing population of healthcare professionals: resulting in an imbalance of the care demand and care supply. Technological developments and ICT give the opportunity to comply with the growing demands of care. Telemedicine interventions can shorten the stay at a hospital or rehabilitation centre and can extend the care at home by remote monitoring and remotely supervised treatment under the continuous supervision of a health care professional. In the treatment of chronic diseases, for example COPD/ASTMA and chronic pain, an increase of the physical condition of patients is important. Patients participate in an exercise program at a clinic

supervised by a therapist. To increase the intensity of the treatment the therapist can assign home exercises. These by paper supported exercise programs are effective, but low adherence to there program is problematic. The adherence of a home-based exercise program can increase by a more detailed description of the exercises or to support the exercises with images or video and supervision of the therapist during training at home. This can be achieved by a new telemedicine application; a video-based teletreatment service with a database of exercises and different modalities to contact patient and professional. This computer supported exercise program will be implemented in rehabilitation centre *het Roessingh* and will be combined with existing programs of COPD and chronic pain patients.

Study objective

The objective of the present study is to investigate the user satisfaction, clinical effectiveness, and economic outcomes of the computer supported exercise program.

Study design

For this study is chosen for an observational prospective cohort design. The study comprises an observation of the patients receiving the traditional group rehabilitation program at *Het Roessingh* (control group and historic cohort) and the patients receiving the group rehabilitation program at *Het Roessingh* extended with the computer supported exercise program (intervention group).

Study burden and risks

The computer supported exercises program is estimated to have minimal risk as patients are trained in the exercises presented during the treatment and learned to recognize their own boundaries. The burden to the patients exists of filling in questionnaires and investing time to learn to operate the computer supported exercise program. Potential risks and burden outweigh the potential benefit patients receive, as they have the opportunity to receive detailed information on what and how to execute exercises during their treatment.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adults (18-64 years)

Elderly (65 years and older)

Inclusion criteria

COPD:

- pulmonary diseases
- capable of following outpatient treatment
- motivated
- non smoking
- familiar to pulmonary specialist;Chronic pain (CLBP & WAD):
- chronic non-specific pain (> 3 months)
- motivated
- a psychoneurotic score < 150 point (symptom checklist (SCL-90))

Exclusion criteria

- insufficient understanding of the Dutch language
- BMI > 35
- age <18 years

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Treatment

Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	19-10-2009
Enrollment:	138
Type:	Actual

Ethics review

Approved WMO	
Date:	16-10-2009
Application type:	First submission
Review commission:	METC Twente (Enschede)
Approved WMO	
Date:	07-12-2010
Application type:	Amendment
Review commission:	METC Twente (Enschede)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
Other	in behandeling bij NTR
CCMO	NL29433.044.09