Bewegingstherapie via het internet voor patienten met type 2 diabetes.

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Regular exercise has been recommended for diabetes patients for many years, and has been identified along with diet and insulin as one of the three components of good therapy. From a physiological perspective, structured exercise interventions have...

Ethische beoordeling	Positief advies
Status	Werving gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON23270

Bron
NTR

Verkorte titel
Web based interactive exercise therapy for Type 2 Diabetes

Aandoening

Diabetes type 2

Ondersteuning

Primaire sponsor: Erasmus Medical Center
Department of Rehabilitation Medicine
Overige ondersteuning: Wetenschappelijk College Fysiotherapie (WCF)

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Adherence to the exercise program as measured by percentage of dropouts as well as an

increase in total weekly energy expenditure. The feasibility of the LiveWorkout and Direct Live program.

Toelichting onderzoek

Achtergrond van het onderzoek

Physical exercise training is an important tool for improving glucose homeostasis in type 2 diabetic patients. A combined strength- and endurance training program appears to improve functional capacity, body composition and metabolic control in type 2 diabetes patients. However, long-term adherence to such programs is generally poor. Therefore, alternative strategies are warranted to reduce attrition rate.

Objective: (1) Does online supervised exercise therapy using the LiveWorkout concept result in better adherence to therapeutic bouts of exercise in type 2 diabetes patients as compared to Direct Life online lifestyle coaching. Are the LiveWorkout and Direct Life concepts feasible e-coaching programs? (2) Will online exercise training as compared to an online lifestyle coaching program cause an improvement in: movement-related everyday activity/energy expenditure and functional capacity, muscle strength and resistance to fatigue. (3) Does online exercise training as compared to usual care improve glycemic control (HbA1c), fasting plasma glucose levels and cardiovascular risk profile?
Patients will be randomized to follow either a supervised progressive interval endurance and resistance type of training at the ErasmusMC (13 weeks) combined with an interactive web based (LiveWorkout®) resistance training at home (26 weeks), or to take part in a webbased activity monitor based lifestyle coaching program (26 weeks). Both programs are aimed at increasing daily physical activity levels. All patients will be seen 3 times (in total approximately 3.5 hrs) before and after the intervention. Measurements that will be done during those visits are: questionnaires (PAR-Q, SF-36, specifically designed LiveWorkout users questionnaire), body composition, blood pressure, spiroergometry, muscle strength (upper arm and leg), Sit to Stand-test, fasting blood sample (3x7 ml). Patients will be asked to wear a small accelerometry-based Activity Monitor for 7 days and register movement related activities (7 days) as well as dietary intake (3 days).

Doel van het onderzoek

Regular exercise has been recommended for diabetes patients for many years, and has been identified along with diet and insulin as one of the three components of good therapy. From a physiological perspective, structured exercise interventions have at least equal therapeutic strength as currently applied pharmaceutical solutions aimed to improve glycemic control and cardiovascular risk profile. Despite this growing body of evidence showing the health benefits of exercise in type 2 diabetes, recently published surveys show that the majority of patients with diabetes do not engage in regular physical activity. This study investigates the

feasibility of an online interactive exercise therapy to improve movement-related everyday activity/energy expenditure and functional capacity, muscle strength and resistance to fatigue.

Onderzoeksopzet

All patients will be seen 3 times (in total approximately 3.5 hrs) before and after the intervention. Measurements that will be done during those visits are: questionnaires (PAR-Q, SF-36, specifically designed LiveWorkout users questionnaire), body composition, blood pressure, spiroergometry, muscle strength (upper arm and leg), Sit to Stand-test, fasting blood sample (3x7 ml). Patients will be asked to wear a small accelerometry-based Activity Monitor for 7 days and register movement related activities (7 days) as well as dietary intake (3 days).

Onderzoeksproduct en/of interventie

Patients will be randomized to follow either a supervised progressive interval endurance and resistance type of training at the ErasmusMC (13 weeks) combined with an interactive web based (LiveWorkout®) resistance training at home (26 weeks), or to take part in a webbased activity monitor based lifestyle coaching program (26 weeks). Both programs are aimed at increasing daily physical activity levels.

Contactpersonen

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

1. Type 2 diabetes <15 years;

2. HbA1c: 7.0- 10.0%;

3. Age: 35-75 yrs;

4. BMI: 27-40 kg/m2;

5. Access to broadband internet including a personal computer with USB-interface.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Cardio-vascular disease;

2. Severe orthopaedic impairments;

3. Renal failure or >grade III retinopathy or previous diabetic foot ulcer;

4. Cerebro-vascular disease (CVA), neurological diseases or deficits.

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blindering:	Open / niet geblindeerd
Controle:	Geneesmiddel

Deelname

Nederland

Status:	Werving gestart
(Verwachte) startdatum:	01-03-2010

Aantal proefpersonen:	48
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	25-02-2010
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL2108
NTR-old	NTR2225
Ander register	MEC Erasmus MC : MEC-2009-230
ISRCTN	ISRCTN wordt niet meer aangevraagd.

Resultaten

Samenvatting resultaten
N/A