

Improvement of engagement in physical activities and quality of life in dementia: study into the (cost-)effectiveness of exergaming

No registrations found.

Ethical review	Positive opinion
Status	Recruitment stopped
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON28729

Source

NTR

Brief title

D-EXERGAMING

Health condition

Inactivity (inactiviteit), behaviour and mood problems (gedrag en stemmingsproblemen), well-being (welzijn) in persons with dementia
Experience burden (ervaren belasting) of caregivers

Sponsors and support

Primary sponsor: VU medisch centrum

Vrije Universiteit

TNO

Hilverzorg

Evean

Alzheimer afd Amsterdam

Silverfit

Embedded fitness

Source(s) of monetary or material Support: ZonMw, EU

Intervention

Outcome measures

Primary outcome

Physical activity (lichamelijke activiteit) en Mobility (mobiliteit)

Secondary outcome

For the participant with dementia:

Physical functioning & fall incident rate (lichamelijk functioneren & valincidenten)

Cognitief functioning (cognitief functioneren)

Social functioning (sociaal functioneren)

Emotional functioning (emotioneel functioneren)

Healthcare costs (gezondheidsgerelateerde kosten)

Body Mass Index (BMI)

Quality of life (kwaliteit van leven)

Experience with sports/cycling, technology and digital games in the past (ervaring met sport/fietsen, technologie en computerspellen in het verleden)

Unexpected (Adverse) Events (onverwachte nadelige gebeurtenissen)

Interest in and enjoyment of physical exercise (interesse in en motivatie voor beweegactiviteiten)

Satisfaction with the exergaming activity (only experimental group) (tevredenheid met de exergaming activiteit, alleen in experimentele groep)

Social context and extent of supervision during the exergaming activity (only experimental group) (sociale context en mate van toezicht tijdens de exergaming activiteit, alleen in experimentele groep)

Demographics and personal characteristics (demografische en persoonlijke gegevens)

For the informal caregiver:

Experienced burden (ervaren belasting mantelzorgers)

Quality of life (kwaliteit van leven)

Positive care experiences (positieve ervaringen van het mantelzorgen)

Healthcare costs (gezondheidsgerelateerde kosten)

Unexpected (Adverse) Events (onverwachte nadelige gebeurtenissen)

Demographics and personal characteristics (demografische en persoonlijke gegevens)

For the day-care centers (only experimental group):

Cost effectiveness (kosteneffectiviteit)

Implementation aspects of exergaming (only for experimental group) (implementatie-aspecten van exergaming, alleen voor experimentele groep)

Study description

Background summary

In this project, the (cost-)effectiveness of an innovative way of exercising for people with dementia will be studied: exergaming. Exergaming technology focuses on gaming exercises that are controlled by physical movements of the player. The aim of this intervention is to stimulate people living with dementia to exercise indoors in an enjoyable, safe way, thereby promoting physical, cognitive, emotional and social functioning and quality of life. A randomized controlled trial will be conducted among participants with dementia who attend day-care centers with or without exergaming activities. The effectiveness of exergaming will be compared to regular activities in day-care centers on performance of physical activities and mobility (primary outcome) and on physical, cognitive, social and emotional functioning, and quality of life of people with dementia. For informal caregivers, the effectiveness will be evaluated on experienced burden, quality of life and positive care experiences (secondary outcomes). Furthermore, the cost-effectiveness will be studied as well as the satisfaction with exergaming and factors to improve implementation of exergaming in dementia care.

Participants will be recruited from the Netherlands.

Study objective

Persons with dementia who engage in exergaming in day centres will be more physically active and show improved functioning compared to day centres offering regular activities.

Study design

at baseline, and three and six months later

Intervention

Exergaming (doing physical exercises in a virtual cognitive gaming environment) as compared to regular activities in day care

Contacts

Public

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Eligibility criteria

Inclusion criteria

diagnosis of dementia, severity mild to moderate severe

living in the community

attending day care

primary caregiver involved

Exclusion criteria

admission to nursing home expected within 6 months

terminal illness

severe physical comorbidity

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)
Control:	Active

Recruitment

NL	
Recruitment status:	Recruitment stopped
Start date (anticipated):	01-03-2016
Enrollment:	224
Type:	Actual

IPD sharing statement

Plan to share IPD: Yes

Plan description

Collected data regarding the TOPICS-MDS will be shared in the TOPICS-MDS database. This includes background characteristics; physical, social, emotional functioning; quality of life; health care costs; experiences caregiving

Ethics review

Positive opinion	
Date:	10-12-2015
Application type:	First submission

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
NTR-new	NL5420
NTR-old	NTR5537

Register

Other

ID

CMG: VUmc2015-679 : ZonMw 70 73308-98

Study results

Summary results

- Van Santen J, Dröes R-M, Holstege M, Blanson Henkemans OA, van Rijn A, de Vries R, et al. Effects of Exergaming in People with Dementia: Results of a Systematic Literature Review. *Journal of Alzheimer's Disease*. 2018;64(2):741-60.

- Van Santen J., Dröes RM, Bosmans JE, Blanson Henkemans OA, van Bommel S, Hakvoort E, Valk R, Scholten C, Wiersinga J, van Straten A, Meiland F (2019) The (cost-) effectiveness of exergaming in people living with dementia and their informal caregivers: protocol for a randomized controlled trial. *BMC Geriatr*. Feb 19;19(1):50. doi: 10.1186/s12877-019-1062-x.