Are activity-promoting video games an effective way for prevention of overweight in a family setting?

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To evaluate the effects of providing families with an activity-promoting video game on time spent playingvideo games, physical and sedentary activities, consumption of snacks and sugar-sweetened beveragesand objectively measured BMI, hip and waist...

Ethical review	Approved WMO
Status	Pending
Health condition type	Other condition
Study type	Interventional

Summary

ID

NL-OMON37314

Source ToetsingOnline

Brief title Active video games for prevention of overweight

Condition

• Other condition

Synonym obesity, overweight

Health condition

geen concrete aandoeningen: preventie van overgewicht

Research involving

Human

Sponsors and support

Primary sponsor: Vrije Universiteit Source(s) of monetary or material Support: ZonMw

Intervention

Keyword: active games, adolescents, family setting, overweight

Outcome measures

Primary outcome

Body height

body weight

hip and wais-circumference

skinfold thickness

Secondary outcome

game behavior

sedentary behavior

physical activity

snacking behavior

sugar-sweetened beverage consumption

appreciation, interest, motivation to play, enjoyment, ease of playing,

perceived competence, achieved skill level of the activity promoting game,

achieved scores and advancement levels registered by the game and reason to

play or not to play.

Study description

Background summary

Playing traditional video games has been associated with an increased risk of being overweight.

Thus, reduction of time spent playing traditional video games may be an important strategy in weight

gain prevention. Further, playing activity-promoting video games have been shown to have important

metabolic and physiological effects. Various studies have been conducted on the energy expenditure of

activity-promoting video games. These studies have shown that playing novel activity-promoting

video games indeed substantially increased energy expenditure. Substituting sedentary game time with passive game time might be an innovative strategy in weight gain prevention among adolescents, but randomized controlled trials on the effects of activity-promoting video games are lacking. The potential of activity-promoting video games as a

means of reducing the time spent in sedentary behaviors in order to prevent weight gain remains

unknown. In this RCT the aims are to evaluate the positive and negative effects of providing families with an activity-promoting video game (Dance Dance Revolution) on sedentary

(video game) behavior, physical activity, consumption of snacks and sugar-sweetened beverages, BMI, hip and waist circumference, and skinfold thickness.

Study objective

To evaluate the effects of providing families with an activity-promoting video game on time spent playing

video games, physical and sedentary activities, consumption of snacks and sugar-sweetened beverages

and objectively measured BMI, hip and waist circumference and skinfold thickness a RCT will be

conducted. It is important to note that our aim is to substitute time spent in traditional video games with

time spent in activity-promoting video games in order to prevent weight gain, and not to introduce

activity-promoting video games in non-gaming families.

Study design

Eligible families who are willing to participate will be contacted by phone for

registering background

characteristics (family size, age, gender and education of family members). The study will be explained

and an appointment for the baseline measurement will be made. After the registration phone call,

randomization will take place at the family level stratified according to SES. A total of 142 families in the

experimental group will receive an activity-promoting video game, and 142 families in the control group

will receive a traditional video game. These games will be delivered in a home visit, during which also

baseline measurements of weight, height, hip and waist circumference, skinfold thickness and

behavioral measures will be taken (T0). Post-tests will take place one (T1), six (T2) and twelve (T3)

months after receiving the video game during home visits. Including a six and twelve month follow-up

allows for examining the development of the motivation to play the game over time.

Intervention

Families who are assigned to the experimental group will receive the software for the Dance Dance

Revolution (DDR) game and two DDR dance pads. DDR is available for a range of consoles, e.g. Xbox

360 and Sony Playstation, and is relatively inexpensive. Families who are assigned to the control group may choose a

game from a selection of traditional (sedentary) video games. The games will be provided for free,

because it would be unethical to test the effect of an intervention in an RCT for which the participants

have to pay. Both the intervention and control group families will receive the game during the first home visit.

Study burden and risks

There is no additional risk for participants of this study and the potential burden is minimal. Data will be collected four times during one year by means of questionnaires and anthropometric measures.

Contacts

Public

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adolescents (12-15 years) Adolescents (16-17 years) Adults (18-64 years) Elderly (65 years and older)

Inclusion criteria

Families with children aged 12 through 16 years Home access to a console Play traditional (sedentary) video games

Exclusion criteria

Lack of knowledge of the Dutch language Access to active video game

Study design

Design

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

Recruitment

NL	
Recruitment status:	Pending
Start date (anticipated):	01-09-2011
Enrollment:	642
Туре:	Anticipated

Ethics review

Approved WMO Date:	08-01-2010
Application type:	First submission
Review commission:	METC Amsterdam UMC
Approved WMO Date:	07-06-2011
Application type:	Amendment
Review commission:	METC Amsterdam UMC

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

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

ID: 26580 Source: NTR Title:

In other registers

Register

CCMO OMON ID NL26745.029.09 NL-OMON26580