Establishing the length of physical activity needed to improve cognitive performance in Dutch adolescents (11-14 years).

Gepubliceerd: 30-10-2014 Laatst bijgewerkt: 13-12-2022

In this study we will investigate whether the effects of physical activity on cognitive performance are present after short (10 minutes), medium (20 minutes) or longer (30 minutes) bouts of moderate exercise in order to establish the feasibility of...

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

Samenvatting

ID

NL-OMON20170

Bron
Nationaal Trial Register

Aandoening

Physical activity, exercise, cognitive performance, school grades, physical fitness, exercise intensity, exercise duration, gym, school, adolescents

Beweging, cognitieve prestatie, schoolcijfers, leren, school, adolescenten, bewegingsinspanning, bewegingsduur

Ondersteuning

Primaire sponsor: VU University Medical Center (Performer)
Overige ondersteuning: NWO

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Cognitive performance on a task measuring selective attention and a task measuring working memory.

Toelichting onderzoek

Achtergrond van het onderzoek

Participation in physical activity (PA) has received particular attention in the scientific literature, not only for its beneficial effects on physical and emotional health, but also for its positive effects on cognitive functioning. A single bout of physical exercise has been found to increase performance on tasks measuring higher order cognitive processes, such as attention and working memory.

The majority of studies performed to investigate the relationship between PA and cognitive performance, implement exercise sessions of approximately 30 minutes at a moderate to vigorous level of intensity. Such long exercise sessions are difficult to implement in a school setting, as such, it is necessary to assess whether the effects of physical activity on cognitive performance are present after shorter bouts of exercise.

In this study, we investigate PA-related effects on cognitive performance after engaging in physical exercise at 10, 20 and 30 minutes.

Doel van het onderzoek

In this study we will investigate whether the effects of physical activity on cognitive performance are present after short (10 minutes), medium (20 minutes) or longer (30 minutes) bouts of moderate exercise in order to establish the feasibility of implementing exercise programs in a school setting.

Onderzoeksopzet

This is a cross-sectional study, therefore, the acute effects of physical activity will be measured at one timepoint per group.

Onderzoeksproduct en/of interventie

Group 1) Acute effects of 10 minutes of physical activity at a moderate level of intensity.

Group 2) Acute effects of 20 minutes of physical activity at a moderate level of intensity.

Group 3) Acute effects of 30 minutes of physical activity at a moderate level of intensity.

Control conditions

Group 1) Reading, filling in questionnaires and solving puzzels for 10 minutes.

Group 2) Reading, filling in questionnaires and solving puzzels for 20 minutes.

Group 3) Reading, filling in questionnaires and solving puzzels for 30 minutes.

Contactpersonen

Publiek

EMGO Institute - VU University medical center
P.O. Box 7057
1007 MB Amsterdam
A. Singh
van der Boechorststraat 7
room: H-531
Amsterdam 1081 BT
The Netherlands
+31 20 4448382

Wetenschappelijk

EMGO Institute - VU University medical center
P.O. Box 7057
1007 MB Amsterdam
A. Singh
van der Boechorststraat 7
room: H-531
Amsterdam 1081 BT
The Netherlands
+31 20 4448382

Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen

(Inclusiecriteria)

Dutch adolescents following elementary and high school (11-14 years).

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

-none-

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Cross-over
Toewijzing:	Gerandomiseerd
Blindering:	Open / niet geblindeerd
Controle:	Actieve controle groep

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	04-11-2014
Aantal proefpersonen:	80
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	30-10-2014
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	NL4758
NTR-old	NTR4886
Ander register	METc VUmc: 2014.363 : EMGO+ institute: WC2014-020

Resultaten