Wii-habilitation of arm and hand Function in Children with Cerebral Palsy, an explorative study.

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Ethische beoordeling	Niet van toepassing
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON28638

Bron
NTR

Verkorte titel
WiiCP

Aandoening

Limited upper extremityfunction in children with Cerebral Palsy

Ondersteuning

Primaire sponsor: Rietman H., Roessingh Research and Development Roessinghsbleekweg 33b 7522 AH Enschede The Netherlands,
Overige ondersteuning: sponsor

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

1. The Assisting Hand Assessment;
2. Melbourne Assessment;
3. ABILHAND- Kids.

Toelichting onderzoek

Achtergrond van het onderzoek

Rationale:

Impaired upper extremity function is the main problem for half of the children diagnosed with Cerebral Palsy with unilateral hemiparese and contributes significantly to difficulties in performing activities of daily living. Typical therapy uses purposeful activity and task-specific training to improve motor function and independence. There are several potential advantages of Virtual reality (VR) en exercise gaming for rehabilitation. VR facilitates real time performance feedback, safety, independent training, a capacity to increase the complexity of tasks, and it can record advantages. The most import and strength to therapy is the ability of VR to provide a motivational and fun therapy.

Objectives:

The primary objective of this explorative study is to evaluate the training effect on the upper extremity function in children with Cerebral Palsy using the Wii computer, which is a Virtual Reality intervention. The secondary objective is to evaluate the user satisfaction and usability of WiiTM computer training for the user and the health professional.

Design:

In this explorative study, a multiple baseline design is used to examine individual changes in arm function after training with a WiiTM computer. This study consists of two pre- and one post training primairy outcome measurements of functional aspects of upper extremity movements. The Children will attend 12 , half an hour, sessions in total. 2 times a week for 6 Weeks. After the intervention the secondary outcome measurements will be obtained.

Study population:

Ten children with spastic cerebral palsy will participate in the study. They will be recruited from the regional rehabilitation centre “Het Roessingh” (Enschede, The Netherlands), where

children with physical disabilities are treated during school-time.

Endpoints:

Primary endpoints: The Assisting Hand Assessment; Melbourne Assessment; ABILHAND- Kids.

Secondary endpoints: User Satisfaction Questionnaire; Health professional usability questionnaire.

Doel van het onderzoek

The primary objective of this explorative study is to evaluate the training effect on the upper extremity function in children with Cerebral Palsy using the Wii computer, which is a Virtual Reality intervention.

The secondary objective is to evaluate the user satisfaction and usability of WiiTM computer training for the user and the health professional.

Onderzoeksopzet

1. Basiline = primary outcome measurements;

2. Two weeks no training;

3. T1= primary outcome measurements;

4. 6 weeks intervention;

5. T2 = primary outcome measurements + secundary outcome measurements.

Onderzoeksproduct en/of interventie

30 minute with Wii exercise games 2 times a week for 6 weeks.

Contactpersonen

Publiek

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

1. Ages between 6 and 12 years;

2. Have impairment of the upper extremity primarily or secondary to cerebral palsy;

3. Have the ability to hold on to the game controller;

4. Are able to stretch actively and bend shoulder and elbow of the affected arm;

5. Improvement of upper extremity function is a current goal for rehabilitation;

6. Have normal or corrected to normal vision and hearing.

Discriptive caracteristics:

1. Gender;

2. Age;

3. Rehabilitation diagnosis;

4. Affected side;

5. Dominant side;

6. CP classification according to the Gross Motor Function Classification System (GMFCS) (6);

7. CP classification according to the Manual Ability Classification Scale (MACS)(7);

8. Zancolli classification for the fingers and wrist (16);

9. House classification for thumb deformities (17);

10. Current treatments for upper extremity function;

11. Current treatments;

12. Previous experience with VR, WiiTM computer games and computer games in general.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Epilepsy not under control with medication;

2. Impairment of the upper extremity due to other causes then primarily or secondary to cerebral palsy;

3. Unable to understand instructions for using the intervention.

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	N.v.t. / één studie arm
Blindering:	Open / niet geblindeerd

Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	26-02-2010
Aantal proefpersonen:	10
Type:	Verwachte startdatum

Ethische beoordeling

Niet van toepassing

Soort:	Niet van toepassing

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	NL2059
NTR-old	NTR2176
Ander register	CCMO : 30777
ISRCTN	ISRCTN wordt niet meer aangevraagd.

Resultaten

Samenvatting resultaten
N/A