

Limbs Alive: Use of video games to provide motivating, child centred therapy to improve bimanual skills for children with hemiplegic cerebral palsy

Submission date 28/11/2012	Recruitment status No longer recruiting	☐ Prospectively registered
Registration date 29/11/2012	Overall study status Completed	☐ Protocol
Last Edited 25/11/2019	Condition category Nervous System Diseases	☐ Statistical analysis plan
		☐ Results
		☐ Individual participant data
		☐ Record updated in last year

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
11138

Study information

Scientific Title

Limbs Alive: Use of video games to provide motivating, child centred therapy to improve bimanual skills for children with hemiplegic cerebral palsy

Study objectives

The aim of this study is to find out whether bespoke video games can improve bimanual function in children with hemiplegic cerebral palsy.

Ethics approval required

Old ethics approval format

Ethics approval(s)

21/04/2011, ref: 11-NE-0027

Primary study design

Intentional

Study design

Randomised interventional trial

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Hemiplegic cerebral palsy

Interventions

70 children with hemiplegia will be randomly allocated to intervention or placebo groups, stratified for sex and severity. The children and families will be told only that computer games are being evaluated for therapy. The research team will be blinded to group allocation. Both groups will be given the same computer games. Intervention group: successful playing will require increasing bimanual dexterity. Placebo group: increasing skill will be required of only the non-affected hand. The date, time, duration of play and score will be recorded automatically.

The Intervention Group The initial grade of difficulty of the task for the paretic hand will be set to make use of their maximum skill. Bimanual dexterity will be required and the task difficulties will be interactively adjusted as part of the game to take account of increasing skill in bimanual hand use.

Clinical assessments of upper limb function will be carried out at baseline, 1, 3 and 6 months by an experienced therapist.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

Melbourne Unilateral Upper Limb Assessment at 1 month, 3 months and 6 months

Key secondary outcome(s)

1. Assisting Hand Assessment at 1 month, 3months and 6 months
2. Beery-Buktenica Developmental Test of Visual-Motor Integration at 1 month, 3 months and 6 months
3. Canadian Occupational Performance Measure at 1 month, 3months and 6 months
4. Kidscreen at 1 month and 6 months

Completion date

30/12/2012

Eligibility**Key inclusion criteria**

1. Hemiplegic cerebral palsy
2. Able to actively grasp the game controller with the paretic hand, though grasp need not be maintained.
3. Male & Female, age 7-15 years

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Child

Lower age limit

7 Years

Upper age limit

15 Years

Sex

All

Key exclusion criteria

1. IQ less than 70
2. Severe behavioural problems
3. Severe visual impairment
4. Severe fixed contractures of the wrist or elbow
5. Epilepsy induced by the flicker frequency of a computer screen

Date of first enrolment

01/04/2012

Date of final enrolment

30/12/2012

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

Sir James Spence Institute

4th Floor

Newcastle upon Tyne

United Kingdom

NE1 4LP

Sponsor information

Organisation

Newcastle upon Tyne Hospitals NHS Foundation Trust (UK)

ROR

<https://ror.org/05p40t847>

Funder(s)

Funder type

Government

Funder Name

National Institute for Health Research (NIHR) (UK) - Research for Patient Benefit (RfPB)

Results and Publications

Individual participant data (IPD) sharing plan**IPD sharing plan summary**

Not provided at time of registration