Increasing motor skills and physical activitiy in children with Developmental Coordination Disorder

No registrations found.

Ethical review	Positive opinion
Status	Pending
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON23228

Source
NTR

Health condition

motor skills
physical activity
perceived motor competence
DCD

Dutch:
motorische vaardigheden
fysieke activiteit
motorische competentiebeleving
DCD

Sponsors and support

Primary sponsor: University Medical Centre Utrecht (UMCU)
Child Development and Exercise Centre
Wilhelmina Children’s Hospital/ UMCU
KB 02.056.0, Lundlaan 6
3584 EA Utrecht
Source(s) of monetary or material Support: Vormingsfonds Oefentherapie Cesar

Intervention

Outcome measures

Primary outcome

- physical activity as assessed with a pedometer and parental proxi-reports

Secondary outcome

- motor skills as assessed with the MABC-II and the Developmental Coordination Disorder Questionnaire 2007 (DCDQ 2007)

- perceived motor competence as assessed with the “Hoe ik vind dat ik het doe” – questionnaire

- global self-worth as assessed with the Self Perception Profile for Children

Study description

Background summary

Summary

Rationale: Children with Developmental Coordination Disorder (DCD) experience difficulties in participation in daily life that require motor skills. Evidence suggests task-oriented motor interventions to be beneficial for improving motor skills in children with DCD. However, whether the newly learned motor skills lead to an increase in the amount of physical activities has not been investigated yet. Secondly, children with DCD are shown to have a lower perceived motor competence compared to typically developing children, which in turn, is a significant predictor of physical activity in children. Therefore, motor interventions that (also) aim to increase perceived motor competence might potentially be beneficial to improve both motor skills and physical activity in children with DCD. Studies investigating a possible additional benefit of focussing on a child’s perceived competence are currently lacking.

Objective: To investigate the short-term and long-term effects of a 12-week motor skills intervention, including behavioural motivation techniques, on physical activity, motor skills, perceived motor competence and global self-worth in children with DCD.

Study design: The study is a Clinical Controlled Trial (CCT). Assessors and paediatric therapists that administer care as usual to the control group will be blinded for treatment allocation. Assessment of both the intervention group and control group will take place at

baseline (T0), after 12 treatment sessions (T1) and after 3 months of no intervention (T2).

Study population: In total, 48 children with DCD (age 7-10) will be recruited from three paediatric therapy practices in the Netherlands. Children referred to one of these paediatric therapy practices will function as the intervention group, while children referred to the other two paediatric therapy practices will function as the control group.

Intervention: Children in the intervention group will receive twelve individual-tailored treatment sessions of 30 minutes once a week. Treatment goals will be set for each child individually based upon structured assessment of the child's motor skills and perceived motor competence. A variety of functional tasks and gross motor play activities will be given to enhance motor skills. During intervention sessions, behavioural motivation techniques will be used in order to enhance children's perceived motor competence and physical activity. All participating therapists will receive special training before intervention.
Children in the control group will receive care as usual for twelve treatment sessions of 30 minutes once a week.

Study objective

The hypothesis of this study is that an individual tailored task-oriented motor skills intervention with additional emphasis on behavioural motivation techniques will increase motor skills, physical activity, perceived motor competence and global self-worth in children with DCD.

Study design

Assessment of both the intervention group and control group will take place at baseline (T0), after 12 treatment sessions (T1) and after 3 months of no intervention (T2)

Intervention

Intervention group:
Children in the intervention group will receive twelve individual-tailored treatment sessions of 30 minutes once a week. Treatment goals will be set for each child individually based upon structured assessment of the child's motor skills and perceived motor competence. A variety of functional tasks and gross motor play activities will be given to enhance motor skills. During intervention sessions, behavioural motivation techniques will be used in order to enhance children's perceived motor competence and physical activity. All participating therapists will receive special training before intervention.

Control group:

Children in the control group will receive care as usual for twelve treatment sessions of 30 minutes once a week.

Contacts

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Eligibility criteria

Inclusion criteria

-Children referred to paediatric therapy by a general practitioner or school medical officer;

-Score on a standardised test of motor skills performance (MABC-II) below 16th percentile;

-An indication of DCD or suspected DCD on the Developmental Coordination Disorder Questionnaire 2007 as experienced by parents;

-A score below the advised amount of daily steps for children (boys < 15000; girls < 12000) on a pedometer (Yamax CW700);

-Age between 7 and 10;

-Parental informed consent and child verbal assent;

-No known neurological disorders causing motor problems (e.g. cerebral palsy, spina bifida etc.).

Exclusion criteria

-Insufficient understanding of the Dutch language;

-Children with only a low score (< 16th percentile) on the subscale manual dexterity of the MABC-II.

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Non-randomized controlled trial
Masking:	Double blinded (masking used)
Control:	Active

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-09-2013
Enrollment:	48
Type:	Anticipated

Ethics review

Positive opinion

Date:	21-08-2013
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	NL3850
NTR-old	NTR4135
Other	NL43890.041.13 : 13/245
ISRCTN	ISRCTN wordt niet meer aangevraagd.

Study results

Summary results
N/A