

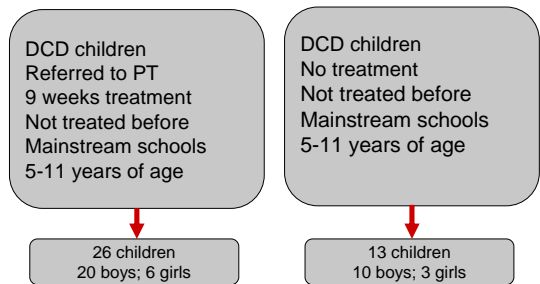
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Cognitive motor approach Henderson & Sugden

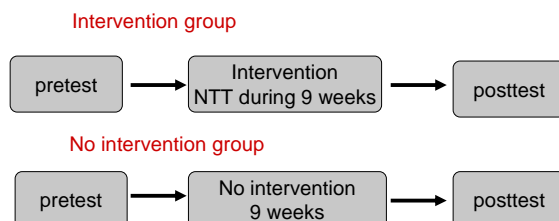
- > Precursor of:
 - CO-OP (Polatajko et al.)
 - Neuromotor Task Training (Schoemaker & Smits-Engelsman)
 - Ecological approach (Sugden & Henderson)

Cognitive Motor Approach	Neuromotor Task Training (NTT)
Application of well-researched motor learning principles	similar > Fitts stages of motor learning > (instruction, practice, feedback) > time on task
Learning conducted in a meaningful context (functional tasks, active movements)	similar
Employs task analysis and task adaptation (strengths and weaknesses)	More or less similar (task analysis, analysis of motor control processes involved)
Team approach (child, teacher, therapist working together)	Similar
Favours group approach	Individual approach

Effectiveness of NTT?



Design



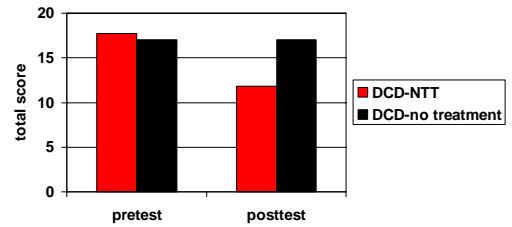
Physical Therapists

- > Pediatric Physical Therapists
- > Schooled in NTT
- > Extra training (2 meetings) before start of the study

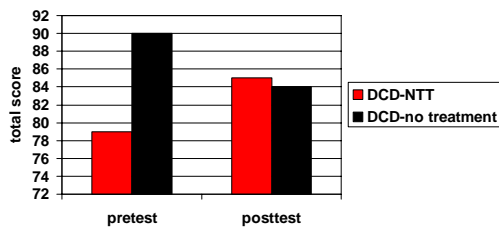
Measuring instruments

- > Movement Assessment Battery for Children (Movement-ABC)
 - Handvaardigheid (fijne motoriek)
 - Balvaardigheid
 - Evenwicht
- > Test of Gross Motor Development
 - Locomotor skills
 - Object Control skills

Movement-ABC



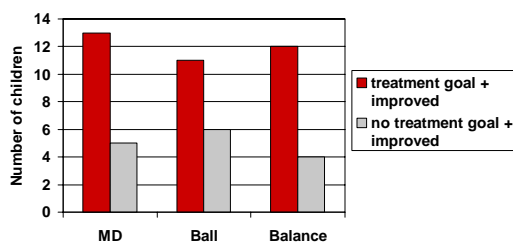
TGMD-2



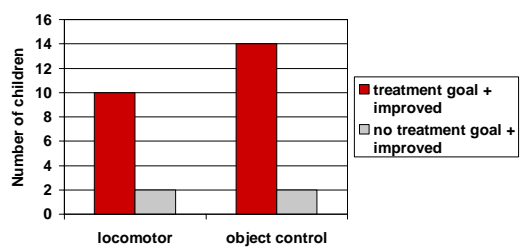
How task specific are the effects of NTT

- > PT's: made list of treatment goals for each treatment session
- > Assumption of task specificity:
 - children with DCD improve if specific motor skills were specified as a treatment goal
 - Children with DCD do not improve if specific skill were not specified as a treatment goal

Task specificity M-ABC

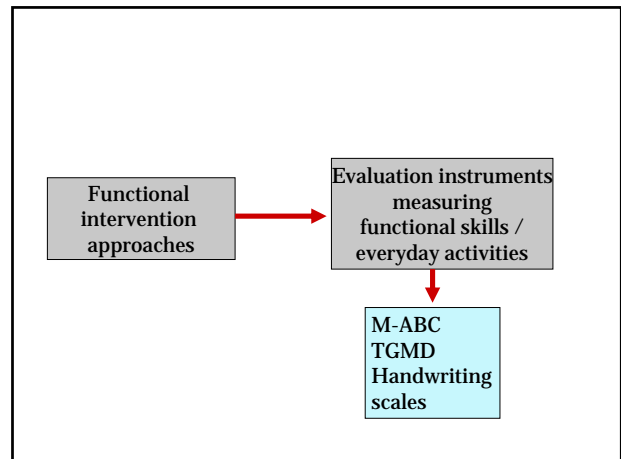


Task specificity TGMD-2



Conclusion

- > NTT is an effective treatment approach for children with DCD in this pilot study.
- > The effects of NTT are task-specific



Development of a new measuring instrument for ADL skills

Van der Linde, Van Netten, Geuze & Schoemaker

- > Literature study and expert interviews
 - To compose a list of ADL skills that might be difficult for children with DCD
- > Expert meeting

DCD Daily Activity Test

Self-maintenance

Cutting gingerbread
Box and Bag
Walk to school
Pouring a drink
Walking with drink to table
Dressing: socks, polo-shirt, trousers, body warmer

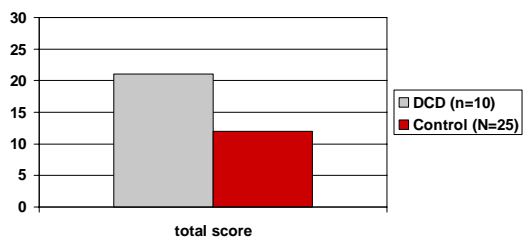
Productivity

Folding
Coloring
Cutting

Play

Constructional play:
Lego
Playing with marbles
Hopping

Preliminary results for the DCD-Daily



Correlation with M-ABC: 0.75 ($p < .01$)

Conclusion

- > Functional approaches such as NTT and the cognitive motor approach are effective in improving motor skills of children with DCD
- > New measuring instruments need to be developed to be able to measure the effectiveness of these functional approaches

