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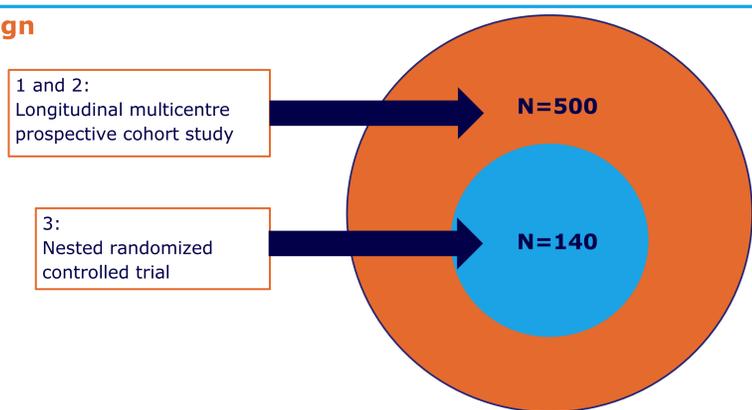
Background

- Approximately 12.000 children suffer from Mild Traumatic Brain Injury (MTBI) in the Netherlands each year.
- There is no sufficient follow-up for this subgroup, while about 2.400 of these children still suffer from complaints at 6 months after MTBI.
- Underestimation and belated recognition of the 'invisible' long-term consequences often lead to chronic and disruptive problems such as participation-problems in school and in social relationships.

Research objectives

1. To study the level of activities and participation (eg. at school, in sports) in the first 6 months after MTBI in children and youth (6-18 years).
2. To identify possible predictors (eg. age, gender) for the level of activities and participation at 6 months after MTBI.
3. To examine the effect of an early intervention (monitoring, education, case-management) to prevent long-term consequences on activities and participation after MTBI.

Design



Intervention

- **Screening of symptoms and MTBI-related problems:**
- **Psycho-education:** standardized and individualized information about MTBI, and advise about load-bearing capacity, sensory information processes and about best ways to increase participation after MTBI
- **Follow-up:** scheduled telephone follow-up by the interventionist who can also be consulted for questions

The intervention is administered:

- ❖ by the interventionist: a professional experienced and educated in child rehabilitation after TBI
- ❖ at 2-4 weeks post injury
- ❖ verbally in a presentation at the hospital and a booklet is given to take home (in parent version and in child version)



Control

- **Usual care:** information provision in a concise brochure

Outcome measures

Primary:

Child and adolescent activities and participation after MTBI
 Instrument: Child and adolescent scale of participation (CASP-DLV)

Secondary:

Pre-injury developmental problems (e.g. child behaviour, family functioning) and injury related characteristics (e.g. Glasgow Coma Scale score, posttraumatic stress symptoms)

Instruments:

CASP-DLV self-report, Children's assessment of participation and enjoyment, PedsQL- fatigue, PedsQL-quality of life, Sensory profile, Health and behaviour inventory, Impact of events scale, Family assessment device, Child behaviour checklist, Registrationforms

Participants

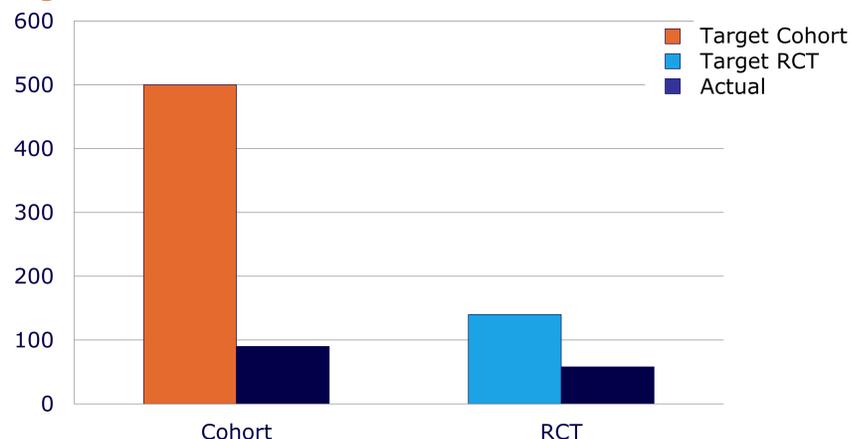
Inclusion criteria for patient recruitment:

- Children aged 6-18 years with MTBI (A + B):
- A. Glasgow Coma Scale score 13-15;
 - B. at least one of the following:
 - Change in mental functioning
 - Loss of consciousness (max 30 min.)
 - Posttraumatic amnesia (max 24 h.)
 - Other transient neurological conditions
- And informed consent (parents and children).

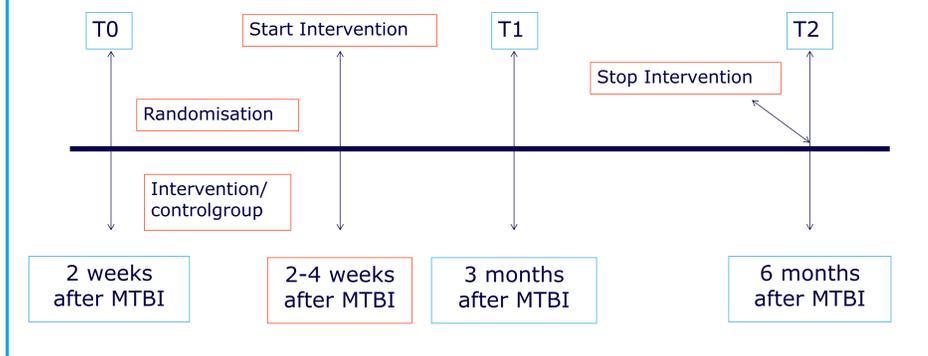
Exclusion criteria for patient recruitment:

- Insufficient command of Dutch language;
- Previously objectified brain damage or central neurological condition.

Progress



Time-line



Statistical analyses

Longitudinal multicentre prospective cohort study:

- A repeated-measures ANOVA to determine difference in activities and participation over time.
- Linear regression analysis to identify the outcome predictors of activities and participation at six months post-injury.

Randomized controlled trial:

- Multilevel analysis (i.e. random coefficient analysis) to assess the effectiveness of the intervention for both short and long-term outcomes.