Reliability of the Danish translation of the Trunk Control Measurement Scale (TCMS-DK)

Cecilie Sonne-Holm, Karen Marie Brix Vilhelmsen, Kimmie Nilsson, Derek John Curtis
Institute for Physical and Occupational Therapy, The Faculty of Health and Technology, Metropolitan University College, Copenhagen, Denmark

Conclusion and take home message

TCMS-DK appears to be a highly reliable method to assess trunk control in children with CP aged 6-15. This study provides Danish pediatric physiotherapists with a simple and reliable clinical measure to evaluate trunk control in children with independent sitting ability. Future studies are required to establish the validity and responsive to change of the TCMS-DK.

Background

The Trunk Control Measurement Scale (see fig. 1) has good clinimetric properties and is one of few measurement instruments that are specifically designed to quantify trunk control in children with cerebral palsy (CP).

Method

The TCMS was translated into Danish using a published standard method. Twenty-five children with spastic CP aged 6-15 (mean age 11y 3mo, 9 females, 16 males) in GMFCS levels I-IV were included in the study. These children were tested twice using the TCMS-DK within a period of 3-10 days. Videos of the tests were scored by two physical therapists.

Results

Relative reliability (ICC2,1) was excellent for all for inter-rater intra-day was 0.986, intra-rater inter-day was 0.941, and inter-rater inter-day was 0.936.

Contact: Derek John Curtis PT MSc ph.d. Tlf +45 51380394  Mail: decu@phmetropol.dk

Trunk Control Measurement Scale

Statisk siddende balance
1  Sidder oprejst– 10 s
2  Sidder oprejst– løfter armene
3  Sidder oprejst– benene krydses af tester
4  Sidder oprejst– krydser benene
5  Sidder oprejst– abducere benene

Selektiv bevægelseskontrol
6  Læne sig fremover 45° og vende tilbage
7  Læne sig bagover 45° og vende tilbage
8  Lateral flexion – overste truncus (albue til briksen)
9  Lateral flexion – nederste truncus (løfte bækkenet)
10 Rotation – overste truncus
11 Rotation – nederste truncus
12 Vrikke bækkenet (lateral flexion og rotation)

Dynamisk siddende balance
13 Række fremad
14 Række til siden – bilateral
15 Række over midtlinien– bilateral

Fig 1 Summary of the Trunk Control Measurement Scale.