Deficits in postural control systems contribute to activity limitations experienced by children with disabilities. There is no comprehensive postural control clinical assessment for children. The Balance Evaluation Systems Test (Full-BESTest), and the short form Mini-BESTest, were developed to assess postural control of adults with brain injury. There is a need to establish psychometric data and clinical utility for the BESTest and Mini-BESTest in children before it can be used clinically.

**AIM:** to evaluate the reproducibility (agreement and reliability) of the Full-BESTest and Mini-BESTest when assessing postural control in children.

**Participants:**
- Children 7-17 years
- n=34 for intra-rater and inter-rater evaluation
- n=22 for test-retest evaluation @ 2 weeks

**Outcome measure:**
- Full-BESTest - 36 items, 6 domains, 108 points
- mini-BESTest - 14 items, 4 domains, 28 points

**Design:**
- **Video assessment:** intra-rater, inter-rater and test-retest reproducibility
- **Real-time:** test-retest reproducibility

**Data Analysis:**
- Reproducibility measured via:
  - **Agreement** - % exact agreement, Limits of Agreement and Smallest Detectable Change.
  - **Reliability** - Intra-class Correlation Coefficients.

**Results:**
- **Reliability (ICC) for total scores**
  - Full-BESTest - excellent for all data collection conditions (all ICcs>0.82)
  - Mini-BESTest - ranged from fair to excellent across data collection conditions (ICC=0.56 to 0.86).

**Agreement for total scores**
- Full-BESTest - good to excellent Smallest Detectable Change (2% to 6%) across conditions
- Mini-BESTest – again, good to excellent Smallest Detectable Change (5% to 10%) across conditions.

Both the Full-BESTest and Mini-BESTest can discriminate postural control abilities within and between days in school-aged children.

The Full-BESTest has slightly better reproducibility and a broader range of items, which suggests it could be the most useful version for treatment planning.

We now propose a protocol for the Kids-BESTest which includes some slightly modified items to accommodate development and improve reproducibility in children. Future psychometric research is recommended for specific paediatric clinical populations.

**References:**

**Contact:**
For full paper and copy of the Kids-BESTest
rosalee.sheather@uq.net.au