Introduction Pedi-IKDC is the pediatric version of the International Knee Documentation Committee subjective outcome score (IKDC). It consists of two subscales, symptoms and sports, but all raw scores are aggregated to one sum score. It is primary outcome in two large scale initiatives for the treatment of children with ACL deficiency: the European ‘Paediatric ACL Monitoring Initiative’ (PAMI), and the North American ‘Pediatric ACL: Understanding Treatment Options’ (PLUTO). However, Pedi-IKDC has not been subjected to validity assessment with optimal methods: modern test theory (MTT) statistical models.

Materials and Methods Data were collected prospectively before surgery and at 1-year follow-up from a nationwide, Danish cohort of 535 children with ACL injury, treated with epiphysial sparing reconstruction at either Aarhus or Bispebjerg University Hospitals. We evaluated the fit to a confirmatory factor analysis (CFA) model and confirmed results by Rasch analysis for each subscale and for the aggregated score.

Results Neither of the two subscales nor the aggregated score of Pedi-IKDC showed acceptable fit to the CFA model. Rasch analysis confirmed this. It was possible to adjust the subscales, achieving a much better fit to the CFA model for the symptoms scale, but only a slightly better fit for the sports scale. Reliability could not be reported due to inadequate model fit.

Conclusion Pedi-IKDC has inadequate measurement properties for children with ACL-injury. Validity of previously collected data can be improved by modification of the scoring. As Pedi-IKDC also has questionable content validity, data obtained by Pedi-IKDC should be interpreted with great caution.

Introduction Decreased balance ability may increase injury risk. Also, acute physical fatigue (APF) affects balance performance. Recently, reactive balance tasks were developed to assess balance in a more sport related context. Furthermore, it is unknown if APF induces changes in brain activity during different balance tasks. Therefore, the aim was to study whether (1) APF fatigue alters brain activity during one predefined and one reactive balance task, and (2) performance on these balance tasks.

Materials and Methods Twenty healthy participants volunteered for this cross-over study. APF was induced through a 30-second modified Wingate-protocol. Brain activity was measured through electroencephalography during both balance tasks and computed by means of spectral power analysis. The pre-defined balance task was the Y-balance test (YBT), while the neurocognitive balance test encompassed the reactive balance test (RBT).

Results Decreased RBT accuracy was observed after APF (p < 0.05), yet YBT performance and RBT visuomotor reaction time remained unaffected. APF induced α- and β-spectral power increments in the prefrontal, motor and posterior parietal cortex during YBT performance (p < 0.05). For the RBT, an α-spectral power increment in the posterior parietal cortex and a β-spectral power increment in the prefrontal cortex were observed due to APF (p < 0.05).

Conclusions APF induces different changes in brain activity during both balance tasks. It is likely that different central mechanisms are affected depending on the type of balance task. Further research is needed in an applied setting to gain insight in the possible interaction between APF and injury occurrence.
Introducing the Western Ontario Meniscal Evaluation Tool (WOMET) is designed to evaluate Health Related Quality of Life (HRQOL) in patients with meniscal injuries. The purpose of this study was to translate and crossculturally adapt the WOMET for use in Danish and evaluate its reliability and responsiveness.

Materials and Methods The WOMET was forward and backward translated into Danish according to international guidelines. 60 patients (mean age 49 years (range 19–71 years), 57% females) with meniscal injury scheduled for arthroscopy meniscal surgery in the period from September 2017 to February 2018, were included in this study. The WOMET was completed at baseline, 3- and 6-months post-surgery. Additionally, test-retest reliability was assessed at 3-months in 55 patients with stable symptom state from test to retest. Responsiveness was assessed between the WOMET and The Knee Injury and Osteoarthritis Outcome Score (KOOS – aggregate of 4 of 5 KOOS-subscakes).

Results The Danish version of the WOMET was successfully translated and showed good face validity. Test-retest reliability was excellent, with Intra Class Correlation (ICC) of 0.88 (95%CI 0.84–0.92) for the total score. The Standard Error of Measurement (SEM) was 125 points and the Minimal Detectable Change (MDC) was 347 points (7.8% and 21.7% of the total score, respectively. The WOMET had good responsiveness with an effect size (ES) of 1.12 at 6 months post-surgery, which was comparable to the KOOS4 (ES 1.10).

Conclusion The Danish version of the WOMET is reliable and responsive for assessing health-related quality of life in patients with meniscal pathology.

**Introduction**

The outcome following operative or non-operative treatment of ACL injuries in children is traditionally assessed by patient reported outcome measures (PROMs), functional performance tests and clinical measurements (e.g. instrumented laxity). However, there is little evidence as to whether these different types of outcome are complementary to evaluate the condition, or if each outcome is representative for how the child is doing.

**Materials and Methods**

A consecutive group of children (defined as < 16 years old) who had an ACL-reconstruction, were prospectively followed and assessed after 1-year with Pedi-IKDC and KOOS-Child, instrumented laxity measurement, range of motion, extension strength and four performance tests. With partial correlation coefficient analysis, controlling for age, height and weight, correlations between the different outcomes were calculated.

**Results**

In the group of 163 children, 141 had all assessments necessary for the analysis. There were weak to strong correlations between the scores from Pedi-IKDC and KOOS-Child, instrumented laxity measurement, range of motion, extension strength and four performance tests. With partial correlation coefficient analysis, controlling for age, height and weight, correlations between the different outcomes were calculated.

**Conclusion**

For children who had their ACL reconstructed there was no clinically important correlation between scores obtained by PROMs, a battery of functional performance tests and instrumented laxity of the knee at 1-year follow-up postoperatively. This is an argument for always to include and report all three types of outcomes.

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