Critical Appraisal Summary

Journal Club Details

Journal Club Mt Gambier
JC Facilitator Tania T
JC Discipline Multi-D

Clinical Scenario

Is the Bruininks-Oseretsky Test of Motor Proficiency (BOT-2) a more accurate indicator of motor functioning within the 0-5 population, compared with other paediatric motor function screening tools?

Article/Paper


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Article Methodology: Validating Instruments

Journal Club Meeting on: May 2013
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<th>Ques No.</th>
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<th>Can’t Tell</th>
<th>No</th>
<th>Comments</th>
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| 1       | ✓   |            |    | *Is this test relevant to practice?*  
Journal club to answer. |
| 2       | ✓   |            |    | *Was there a review of literature?*  
As reported in the introduction, studies which have reported on the Bruininks-Oseretsky Test of Motor Proficiency (BOTMP) have been presented. Studies with similar aims to this study have also been discussed in the introduction of the study. |
| 3       | ✓   |            |    | *Was the objective of the questionnaire clear?*  
The battery (BOTMP) complete, or Long Form (LF) provides ‘a comprehensive index of motor proficiency as well as separate measures of both gross and fine motor skills’ (p 11). In addition to the LF there is a Short Form (SF) of the battery which provides a brief survey of general motor proficiency.  
| 4       | ✓   |            |    | *What variables/indicators were measured? Were they consistent with the objective of the questionnaire?*  
The LF yields these scores for gross motor, fine motor, and total battery composites, while the SF provides scores only for the total battery composite. |
| 5       | ✓   | ✓          |    | *Are the results of this study valid?*  
- *Was there an independent comparison with a reference (gold) standard of diagnosis?*  
The comparison in this study was between the two forms of the BOTMP (LF & SF), there was no comparison with a ‘gold standard’ for motor impairment (MI). As reported in the introduction, previously the BOTMP-SF has been compared with other tests (McCarron Assessment of Neuromuscular Development and the Test of Motor Impairment – Henderson revision) with it reported an inconsistency with the classification of MI from the SF.  
- *Was the test evaluated in an appropriate spectrum of subjects (like those to whom it would be offered in practice)?*  
The subjects that participated in the study included one hundred and forty-four Greek preschool children (74 males, 70 females; mean age 5 years). |
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<td><strong>What were the results?</strong></td>
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<td><em>Bottom line result:</em> Although the total SF and LF scores were highly correlated, paired t-tests indicated significant differences (t = -27.466, p = 0.001). SF total scores were higher than LF total scores. SF had low sensitivity and negative predictive value for identifying MI. The authors concluded that the BOTMP-SF does not appear to be a valid test for the identification of MI in 5-year-old children.</td>
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<td><strong>Were the methods for performing the test described in sufficient detail to permit replication?</strong></td>
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<td>The methods of administering the BOTMP were performed in accordance to the test guidelines by a physical education instructor and a doctoral student experienced in BOTMP administration and familiar with motor assessment. Data sheets and relevant guidelines obtained from the BOTMP were used. In this study the BOTMP was administered and the SF scores were derived from those on the LF.</td>
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<td><strong>Will the test be available, affordable, accurate and reliable in my setting?</strong></td>
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<td>Journal club to answer.</td>
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