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Paper: Diversity

Psychometric properties of the cognitive and motor scales of the Bayley Scales of infant development among Sri Lankan children

The objective of the study was to compare the cognitive and motor developmental patterns of Sri Lankan (SL) children aged 6, 12 and 24 months with children from the United States (US) using the *Bayley Scales of Infant Development – 3rd Edition (Bayley III)* (Bayley2006).

This study used a cross sectional design and included 150 apparently normal, full-term infants aged 6, 12 and 24 months (± 2 weeks) from the Gampaha District of Sri Lanka. The Cognitive, Fine Motor and Gross Motor Subtests of the Bayley III Scales of infant development were administered to 50 children from each of the selected age groups individually. Group means and standard deviations were calculated for the Bayley Cognitive, Fine Motor and Gross Motor Scales as well as the scaled scores at each assessment age. The test-retest reliability of the instrument was examined using the intra class correlation (ICC) coefficient.

There were no significant differences between the cognitive and motor scores of Sri Lankan children compared to the US norms at six months of age. At 12 months, Sri Lankan children had significantly higher cognitive scores and significantly lower gross motor scores than the US norms. The cognitive scores of Sri Lankan children were significantly lower than the US norms at 24 months. The gender of the child and having an older sibling did not significantly impact on children's scores. The test was shown to have a high test-retest reliability among Sri Lankan children.

There were some differences in the performance of Sri Lankan children on the cognitive and the Motor Scales of the Bayley III Scale as compared to US children. However, the differences were minor and we recommend the use of these subscales to assess neurodevelopment in Sri Lankan children up to two years. We recommend that the Bayley III Scale be validated for other age groups of Sri Lankan children as well.

Note:

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