

Differences identified when correcting scores of preterm children: consequences for service access.

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Abstract

When chronological age is used for age-standardised developmental tests, preterm children often perform worse than when age corrected for time born preterm is used. This difference reduces as children develop, however it is unclear when it becomes insignificant, leaving practice of age-correction largely up to clinician discretion. The present study contributes to questions surrounding whether age-correction should be used when evaluating children born preterm. To investigate whether a difference existed at two time points (ages 18 months and 7 years), the current study considered the DQ (Bayley Scales of Infant Development, Second Edition) and IQ (Weschler Abbreviated Scale of Intelligence) scores of 577 (305 male, 526 Caucasian) preterm children. Means of scores standardised for chronological and corrected age were compared. Impairment was indicated based on standardised scores, and frequency of indicated impairment was compared. Statistically and clinically significant differences were seen (Cohen's $d = 1.24$ and 0.15 , and changes of 13.9% and 6.9% , respectively) at both age points. Findings indicate that in research, age-correction should be used to eliminate bias. In clinical practice, categorisation as at-risk for impairment and subsequent referral to services can depend on the use of age-correction. To maximise access to services, clinicians should therefore not correct.

DECLARATION

This thesis contains no material which has been accepted for the award of any other degree or diploma in any University, and, to the best of my knowledge, this thesis contains no materials previously published except where due reference is made.

Signature

Belinda Grace Fuss

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“You’re braver than you believe, stronger than you seem, and smarter than you think.”