

Correlation between IQ of K-WPPSI-IV and previous result of developmental test in young children

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Objective

We aimed to compare correlation between Korean Wechsler Preschool and Intelligence Infant Test-IV(K-WPPSI-IV) and previous results of developmental test and find out early predictable factor of intellectual ability in young children.

Subjects and Methods

We retrospectively reviewed the medical records of 227 patients who performed K-WPPSI-IV and 32 patients who previously underwent Korean Infant and Child Development Test (KICDT) and Korean Bayley Scale of Infant Development-II(K-BSID-II) were included. Pearson chi-square test was used to analyze correlation between Full Scale Intelligence Quotient (FSIQ) of K-WPPSI-IV and developmental quotient (DQ) of subscales of KICDT such as gross motor, fine motor, language, personal-social, and cognitive-adaptive and also between FSIQ of K-WPPSI-IV and psychomotor developmental index (PDI) and mental developmental index (MDI) of K-BSID-II.

Result

Mean age of initial developmental tests was 30.03±9.13 months and mean age of K-WPPSI-IV was 48.88±8.69 months. DQ of KICDT was respectively 75.47±22.14, 77.65±17.46, 68.44±24.58, 75.62±19.25, and 79.63±22.67 for gross motor, fine motor, language, personal-social and cognitive-adaptive. FSIQ of K-WPPSI-IV was 75.06±22.22. There was significant correlation between FSIQ of K-WPPSI-IV and fine motor, personal-social, language, cognitive-adaptive DQ of the KICDT and also MDI of the K-BSID-II. But, gross motor DQ of KICDT and PDI of K-BSID-II were not significantly correlated with FSIQ of K-WPPSI-IV.

Conclusion

This study shows that developmental tests which is conducted in infancy and young childhood, especially fine motor, personal social, language and cognitive-adaptive DQ in KICDT and MDI of K-BSID-II may be useful in predicting future cognitive development in children.