Is global developmental delay related to the level of a child's cognitive ability?



Summary

Global developmental delay (GDD), described as significant delays in two or more developmental domains (i.e. performing more than 2 standard deviations below the mean on age-appropriate, standardized, norm- referenced testing), is largely assumed to be synonymous with cognitive delay among clinicians. This study set out to test this assumption by evaluating the cognitive skills of a group of 93 children (86 males, 7 females) with GDD, in which the mean age was 3 years and 8 months.

Data were obtained using a retrospective chart review on all children diagnosed with GDD in one developmental clinic. Children's results were gathered for fine motor skills (Peabody Developmental Motor Scale 2), expressive language skills (Expressive One Word Picture Vocabulary Test), receptive language skills (Reynell Developmental Language Scales or Clinical Evaluation of Language Fundamentals—Preschool 2), as well as for cognitive performance (Weschler Preschool and Primary Scale of Intelligence, Third Edition). Calculations for multiple regression analysis and for correlations were done.

Results showed a wide range of cognitive scores, with 73% of children obtaining a global IQ score of 70 or higher, despite their diagnosis of GDD. In other words, most children with GDD had an IQ score of within the normal range. Fine motor and expressive language skills were highly correlated with cognitive performance.

What families should know

This study demonstrates that a diagnosis of GDD is not necessarily associated with cognitive delays.

What practitioners should know

Health providers should not immediately equate global developmental delay with cognitive

impairment. Health practitioners should work together to establish a clearer definition of global developmental delay, considering the variety of its phenotypic profile in children.

Reference

Riou, E.M., Ghosh, S., Francoeur, E. & Shevell, M.I. (2009). Global developmental delay and its relationship to cognitive skills. *Developmental Medicine & Child Neurology*, 51 (8): 600-606.