

# **PEDIATRIC NEUROLOGY BRIEFS**

## **A MONTHLY JOURNAL REVIEW**

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### **LEARNING AND BEHAVIOR DISORDERS**

#### **PREDICTORS OF COGNITIVE AND MOTOR DEVELOPMENT**

The relative effects of 4 major areas of adversity on early cognitive and motor development were examined in approximately 1,000 children at age 5 years in the Department of Paediatrics and Child Health, University of Otago Medical School, Dunedin, New Zealand. The 4 areas of adversity examined were perinatal complications, family background, child rearing practices, and physical health. The effects on cognitive ability were measured by IQ, receptive language and expressive language. Girls' cognitive ability and motor ability in early childhood were not related to the number of perinatal complications present during pregnancy or birth but were affected by adverse family background conditions and child rearing practices. Girls' language ability was unrelated to the number of health problems at age 3. In boys, IQ scores, receptive language and motor ability were related to the index of perinatal complications; and family background and child rearing affected IQ, receptive language and motor ability scores. Health index affected motor ability in both boys and girls. (Stanton WR et al. Indices of perinatal complications, family background, child rearing and health as predictors of early cognitive and motor development. *Pediatrics* Nov 1991; **88**:954-959.) (Reprints: Dr. Stanton, Dept. Paediatrics, University of Otago Medical School, Box 913, Dunedin, New Zealand.)

**COMMENT.** In summary, the perinatal complications index was not generally predictive of cognitive ability and motor ability outcomes and the health index was predictive mainly of motor ability. Family background and child rearing were predictive of IQ and receptive language scores. Boys are more susceptible to biological and psychological stress than girls. The results support a concept of a continuum of adversity in the areas of perinatal complications, family background, child rearing, and health during early development of learning and motor ability.

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