

## Preterm birth as a risk factor for learning disabilities

### Summary

The development of prematurely born children is at the forefront of the researchers' interest. Developmental delays in the motor and cognitive skills in preterm children, as well as learning and behavioural disorders are rather common. Prematurity is a serious risk factor for learning difficulties. Within academic skills reading has the greatest impact on the prospects of the students, therefore studying reading skills in the risk populations is very important.

In the course of my research, I conducted two studies. First I examined low birth weight premature infants (LBW) 7 to 15 months of age, a group with Bronchopulmonary Dysplasia (BPD) and another without BPD. One of the most frequent complications of preterm birth is Bronchopulmonary Dysplasia (BPD), which is responsible for a considerable proportion of mortality and morbidity in the preterms and further hampers the developmental prospects in the affected children. Then I examined a group of 8–11 year-old children ( $n = 23$ ) who were born preterm with very low birthweights (VLBW) and compared them to 57 full-term children (27 good readers and 30 dyslexics).

Our LBW preterm subjects as a group scored in the low-average zone in each subscale of the Brunet-Lèzine Developmental Scale. The infants with BPD lagged behind their non-BPD counterparts in all tested functions (gross motor, fine motor coordination, language, sociability). Within the age range of our subjects (7-15 months) the delay of the infants with BPD increased with age, with the oldest infants scoring at the borderline level. BPD clearly increased the risk of disturbing development. However, the infants with BPD are far from constituting a homogeneous group; there are marked scatters behind the mean scores.

In the cognitive measures, school-age subjects fell within the normal range, regarding the mean performances of all three groups. In the WISC-IV Full-scale IQ as well as in some other cognitive measures the good readers significantly outperformed both the dyslexics and the preterms. The findings of the study did not confirm our expectation that VLBW prematurity should lead to developmental disadvantages in the acquisition of reading and spelling skills since in the reading and spelling performances of the good readers and the preterms did not differ while both the good readers and the preterms scored higher than the dyslexics.