

Results of Longitudinal Assessments of Very Low Birth Weight and Extremely Low Birth Weight Infants

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Abstract : Premature birth involves developmental risks – the earlier the baby is born and the lower its birth weight, the higher the risks. The developmental outcomes for immature, low birth weight infants are hard to predict. Our aim is to identify the factors influencing infant and preschool-age development in very low birth weight (VLBW) and extremely low birth weight (ELBW) preterms. Sixty-one subjects participated in our longitudinal study, which consisted of thirty VLBW and thirty-one ELBW children. The psychomotor development of the infants was assessed using the Brunet-Lezine Developmental Scale at the corrected ages of one and two years; then at three years of age, they were tested with the WPPSI-IV IQ test. Birth weight, gestational age, perinatal complications, gender, and maternal education, were added to the data analysis as independent variables. According to our assessments, our subjects as a group scored in the average range in each subscale of the Brunet-Lezine Developmental Scale. The scores were the lowest in language at both measurement points. The children's performances improved between one and two years of age, particularly in the domain of coordination. At three years of age the mean IQ test results, although still in the average range, were near the low end of it in each index. The ELBW preterms performed significantly poorer in Perceptual Reasoning Index. The developmental level at two years better predicted the IQ than that at one year. None of the measures distinguished the genders.

Keywords : preterm, extremely low birth-weight, perinatal complication, psychomotor development, intelligence, follow-up

Conference Title : ICDPPS 2019 : International Conference on Developmental Psychology and Parenting Styles

Conference Location : Sydney, Australia

Conference Dates : January 30-31, 2019