

## **Evaluation of the Physical Growth Parameters on the Developmental Outcome of Children below Six Years of Age**

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**Objective:** To evaluate the impact of physical growth parameters on the developmental outcome of children below six years of age.

**Design:** A Retrospective Study.

**Setting:** Child Developmental Unit, Pediatric Department, Salmaniya Medical Complex, Bahrain.

**Methods:** Three hundred thirty-seven children below six years of age were followed-up at the child developmental unit from January 2015 to January 2018 and were included in the study. Children with congenital abnormalities were excluded. Their gestational age, birth-weight, and head circumference at birth were documented. Their medical records were reviewed. Anthropometric measurements were taken during the consultation visit, and their development was assessed by the developmental pediatrician using Griffith mental developmental scale.

**Results:** The mean gestational age was 32 weeks and the mean birth weight was 1,520 grams. The medical records showed that 85 (25.22%) of children were born small for gestational age (SGA), 142 (42.14%) had Respiratory Distress Syndrome (RDS), 24 (7.12%) had retinopathy of prematurity (ROP) and 34 (10.09%) had intraventricular hemorrhage (IVH). Statistical analysis indicates that there is a significant relationship between abnormal physical growth and abnormal development in children below six years of age.

**Conclusion:** The findings of our study showed that physical growth in the first six years of life has a significant relationship to developmental outcome. In addition, the head circumference (which is a reflection of the brain growth) had the most significant effect on the cognitive development.