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## Gestational age and kindergarten school readiness in a nationally representative sample of preterm infants

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**Objective:** To examine the association of gestational age with poor school readiness in kindergarten reading and math skills. We hypothesized that compared to infants born at 39-41 weeks; infants born at lower gestational ages would have poorer school readiness.

**Study Design:** Sample included 5250 children from the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B), assessed with specialized reading and math assessments at kindergarten. Poor school readiness was characterized by reading and math theta scores  $\geq 1.5$  SD below the sample mean. The adjusted odds ratios (aOR) and 95% confidence intervals (CI) of poor school readiness were estimated using multivariate logistic regression, examining gestational age continuously and categorically (very preterm (VPT), moderate/late preterm (M/LPT), early term (ET) and term). Pairwise comparisons tested for differences by gestational age categories.

**Results:** There was an association between gestational age and poor school readiness for reading and math with suggestion of a threshold effect in children born  $\geq 32$  weeks gestation. In adjusted models, the odds of poor school readiness in VPT reading and math were aOR=2.58, 95% CI [1.29-5.15] and aOR=3.38, 95% CI [1.66-6.91], respectively. However, for infants born M/LPT and ET, the odds of poor school readiness in reading did not differ from children born full-term.

**Conclusions:** Compared with term infants, the highest odds of poor school readiness in reading and math were seen in VPT infants, with lower odds of poor school readiness in children born  $\geq 32$  weeks gestation. Ongoing developmental surveillance prior to kindergarten is indicated for very preterm infants.

### Biography

Prachi Shah is currently working as Associate Professor of Pediatrics in University of Michigan, USA. She has published several papers in reputed journals. Her research interests focus on the development of emotional regulation in infants born in the late preterm period.

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