

Title: MOTHERS' PERSISTENT DEPRESSIVE SYMPTOMS AND THEIR PRESCHOOL CHILDREN'S MATH AND LITERACY SKILLS: A NATIONAL STUDY

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Background: Maternal depression has been significantly related to poor outcomes in children's growth and development. Children of mothers with high depressive symptoms exhibit physical, mental health and school/behavior problems.

Objective: To examine the influence of persistent maternal depressive symptoms in preschoolers' math and literacy skills for children born in the United States (US) in 2001.

Design/Methods: The study is based on the Early Childhood Longitudinal Study-Birth Cohort, a nationally representative sample of children. Data were collected at 9 month (9W) and preschool waves (PW). Math and literacy (e.g., letter recognition, phoneme awareness) skills of study children were documented using validated instruments at the PW. Mothers' depressive symptoms were assessed using the 12-item Center for Epidemiological Studies of Depression Scale (CES-D) at both 9W and PW. The high depressive symptoms (HDS) subgroup had scores greater than nine. Mothers were designated persistent HDS (PHDS) if they reported HDS at both waves and persistent low depressive symptoms (PLDS) if CES-D scores were less than or equal to nine at both waves.

PLEASE NOTE: Sample sizes were rounded based on US Department of Education's regulations. Linear regression analyses included sampling weights.

Results: About 6300 birth mothers completed the CES-D at 9W and PW. Almost 4500 mothers were PLDS and about 500 mothers were PHDS. About 4900 birth mothers and their children were included in this analysis; 59.8% of mothers were Euro-American, 72.1% were married, and 56.1% reported at least some college education. Children of PHDS mothers had significantly lower mean (SEM) math scores compared to children of PLDS (47.0 0.5 vs 51.0 0.2, $p < 0.0001$). Children of PHDS mothers also had lower mean (SEM) literacy scores compared to children of PLDS mothers (47.0 0.4 vs 51.0 0.2, $p < 0.0001$). Using hierarchical linear regression that included children's gender, maternal socioeconomic status, education, and racial heritage, mothers' PHDS continued to explain a significant amount of variance in their children's math and literacy scores ($p < 0.01$).

Conclusions: In this nationally representative sample, the preschoolers of mothers' with persistently higher levels of depressive symptoms at the 9M and PW of the study had lower mean scores on tests of math and literacy skills compared to preschoolers of mothers who consistently reported lower levels of depressive symptoms.