Happy Hearts: Associations of Maternal Depressive Symptomatology on Child Profiles of C-Reactive Protein
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INTRODUCTION
• Mexicans are disproportionally affected by obesity, cardiovascular disease, and mental health issues.
• Inflammatory markers in the bloodstream, such as C-reactive protein (CRP), have been shown to predict the future development of obesity, coronary artery disease, and cardiovascular disease.
• Elevated CRP levels have been found in infants born to mothers with maternal depression.
• Little is known about the influence of maternal depression on children’s CRP levels beyond infancy and the corresponding intergenerational obesity and cardiovascular health risks.

AIM
• To examine the below model within a sample of a low-income population in central Mexico.

METHODS
• Mothers completed the Patient Health Questionnaire (PHQ-9) that examines depressive symptomatology.
  • Scores range from 0-27 with higher scores indicating greater depressive symptoms.
  • An enzyme-linked immunosorbent assay (ELISA) was performed on the bloodspot samples using a commercial kit with wells coated with antibodies specific for human CRP.
  • All samples, standards, and blanks were run in duplicate.
  • Multiple regression models were used to test associations.

RESULTS
• In this study, maternal depression is not associated with preschool-aged children’s CRP.
• Contrary to our hypothesis, children’s CRP was associated with children’s adiposity (percentage of body fat), but this relationship was not moderated by maternal depressive symptomatology.
• Future studies of this model should be done using a larger sample size.

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