The impact of chronic maternal depression on adolescent socio-emotional functioning in a sample of Chilean youth

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Background: Globally, maternal depression impacts over a hundred million women, with developmental consequences for children. How timing of exposure to maternal depression influences developmental outcomes is not well understood. Outside the antenatal period, the impact in low- and middle-income countries has received little attention.

Hypothesis: Chronic exposure to maternal depression throughout childhood has a greater impact on adolescent socio-emotional functioning than either early exposure or exposure at school age alone.

Methods: Maternal depression data were available for 1283 children from urban Chilean neighborhoods, recruited as infants (1991-1996) in an iron supplementation study. Maternal mood was assessed with the CES-D at 6mo, 5y, 10y and 16y. Adolescent behavior was assessed at 16y with the Youth Self Report and Child Behavioral Checklist. Written consent was obtained from primary care giver and assent from the youth; University of Michigan and INTA IRBs approved the study.

Analysis: We used latent class growth analysis to empirically determine maternal depression exposure trajectories, and ANCOVA to compare mean z-scores of each trajectory on behavioral assessments, adjusted for child sex and indicators of family socioeconomic status.

Findings: The analysis generated five maternal depression exposure trajectories: 1) none (n=704), 2) none in infancy, moderate at 5y and 16y (n=244), 3) low in infancy, high at 5y and 16y (n=61), 4) high throughout (n=110), 5) high in infancy, moderate at 5y and 10y, high again at 16y (n=164). Internalizing behavior z-scores were highest for Group 3 by both youth and parental report, with no significant difference between Groups 3 and 4. Externalizing and total problem z-scores were also higher in Groups 3 and 4, with no significant difference between Groups 3, 4 and 5 (p<0.05 for all comparisons).

Interpretation: By both maternal report and youth self-reporting, chronic exposure to maternal depressed mood was associated with increased adolescent internalizing behavior. Neither exposure during an "early sensitive window" nor concurrent exposure was as strongly associated with adolescent behavior problems. Chronic exposure to maternal depression may have long-lasting behavioral consequences for children in LMICs. The results point to potential child health benefits of reducing maternal depression postpartum and beyond.

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Diabetes in Post-Soviet Armenia: analysis of risk factors contributing to type II diabetes

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Background: Type II diabetes (T2D) in post-Soviet Armenia is on the rise. Since 2000, the yearly incidence of T2D has increased three-fold (MOH, 2013), and the prevalence of T2D is projected to nearly double by 2030 (WHO). Despite the increasing burden of T2D, there is an extremely limited understanding of the risk factors unique to Armenia. This study was designed to identify and analyze socioeconomic factors contributing to T2D among people in Armenia.

Methods: A cross-sectional survey was conducted using intercept convenience sampling in 5 different regions of Armenia in Summer 2015. Biometric measurements, including blood pressure, blood glucose, BMI, and waist-hip ratio were recorded. SAS statistical software was used to analyze the standard descriptive statistics and associations among continuous and categorical variables.

Findings: 520 people ages 18-80 (mean age 47.25; SD = 14.40) participated in the survey. 84% of respondents were female, 70% were from urban communities, and 97% self-reported having high school education or beyond. 8 new cases of diabetes and 52 cases of prediabetes were discovered. Statistical significant difference was found between blood glucose levels and age (p = 0.0004), perceived health (p = 0.0009), financial status (p = 0.0153), unhealthy diet (p = 0.0058), diagnosis of diabetes (p< 0.0001), heart disease (p = 0.0033), and high cholesterol (p = 0.0007). There was no statistical significant difference between blood glucose levels and gender, place of residence, education, language, smoking status, level of physical activity, and consumption of green leafy vegetables. Similarly, significant difference was found between diagnosis of diabetes and BMI (p <0.0001) and unhealthy diet (p = 0.0034), but not with level of physical activity.

Interpretation: This study identifies many risk factors for T2D, which may help improve outreach programs targeted at reducing the burden of T2D in Armenia. Providing education and empowering Armenians to maintain a healthier diet may be more effective than programs focused solely on increasing physical activity. Additional studies encompassing larger sample of both genders will aid in better understating gender and behavioral risk factors for T2D and develop effective intervention programs aimed at specific needs of the Armenian population.

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Implementation of a phased educational medical approach in a developing country

Abstract Opted Out of Publication

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Prevalence and risk factors for substance use among refugees, internally displaced people and asylum seekers: findings from a global systematic review

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