

Supplementary methods

Linear regression models were used to evaluate the relationship between maternal IPT and prenatal cortisol. Cortisol was modeled as continuous standardized log-transformed cortisol at each time point and continuous CAR and diurnal slope. No history of IPT was used as the reference group. Separate models were fit for each cortisol measure. Final models were stratified by sex and were adjusted for maternal age, race, education, pre-pregnancy BMI and gestational age at cortisol assessment.

Varying coefficient models were repeated with Bonferroni corrections for multiple comparisons applied. The varying coefficient models were developed to examine effect modification of IPT associations with memory scores by maternal prenatal cortisol values using the mgcv package in R. The models allowed the association between IPT and memory scores to vary as a potentially nonlinear function of cortisol. Final models were developed separately by child sex and adjusted for maternal age, race, education, pre-pregnancy BMI, gestational age at cortisol assessment and child age at WRAML-2 testing. Figures were created to present estimates and corresponding confidence intervals for the association of IPT with memory scores, as a function of prenatal cortisol level. $\alpha \leq 0.05/8 = 0.00625$ (for 2 memory outcomes – verbal and visual, 2 cortisol measures – CAR and diurnal slope, and 2 sexes) was considered evidence in favor of rejecting the null hypothesis. Bonferroni corrections were applied to the confidence intervals displayed in the figures, as well, by using the Z statistic corresponding to $\alpha = 0.00625$.

Supplemental Table 1. Association between maternal lifetime interpersonal trauma and prenatal cortisol (n=81)

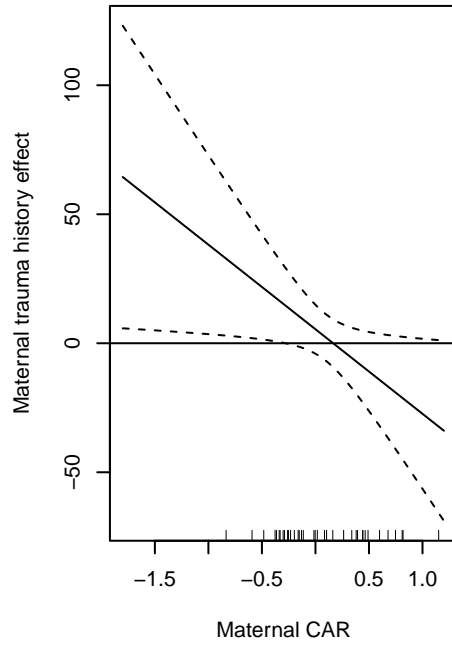
Maternal IPT History	Time 1, β (SE) ^{1,2}	Time 2, β (SE)	Time 3, β (SE)	Time 4, β (SE)	Time 5, β (SE)	AM rise, β (SE)	Diurnal slope, β (SE)
IPT							
None							
Any	-0.1 (0.2)	0.1 (0.2)	0.3 (0.2)	0.5 (0.2)**	-0.0 (0.2)	0.0 (0.3)	0.2 (0.2)

¹Values for cortisol measures were standardized so that coefficients have units of standard deviation change in cortisol measure.

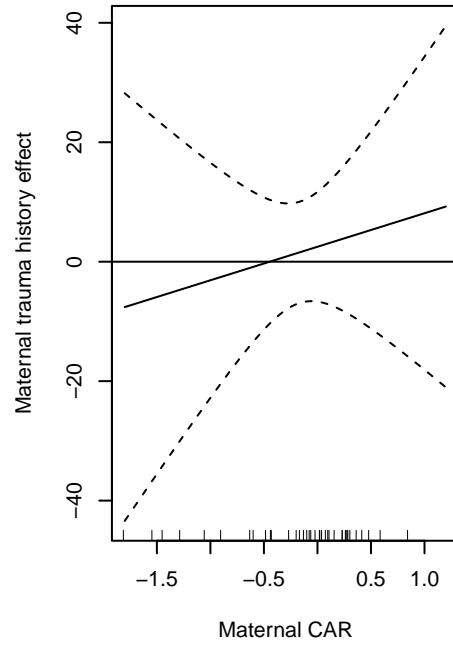
²Values are from linear regression models adjusted for maternal age, race, education and early pregnancy BMI and gestational age at cortisol assessment. Stars indicate p-values: ***, $p \leq 0.01$; **, $0.01 < p \leq 0.05$; *, $0.05 < p \leq 0.1$.

Supplemental Figure 1. Effect modification of maternal IPT history on memory scores by prenatal cortisol values. Panels show the association between maternal trauma history and memory domain as a smooth function of prenatal cortisol morning rise (CAR) or diurnal slope estimated with a varying coefficient model (solid line) with dashed lines showing 95% confidence bounds at Bonferroni-corrected $\alpha \leq 0.05/8 = 0.00625$. Upper and lower dotted bands falling above or below the zero line indicate intervals of cortisol values for which a significant association between maternal IPT history and the memory score were observed. Models were adjusted for mother's age, race, education and BMI, gestational age at cortisol measurement and child age at cognitive testing. Overall effect modification by prenatal CAR was significant at $\alpha \leq 0.00625$ for Visual and Verbal Memory in girls; effect modification by prenatal diurnal slope was significant for Verbal and Visual Memory in boys. (* in the Figure title indicates p-value ≤ 0.00625 for global test of effect modification).

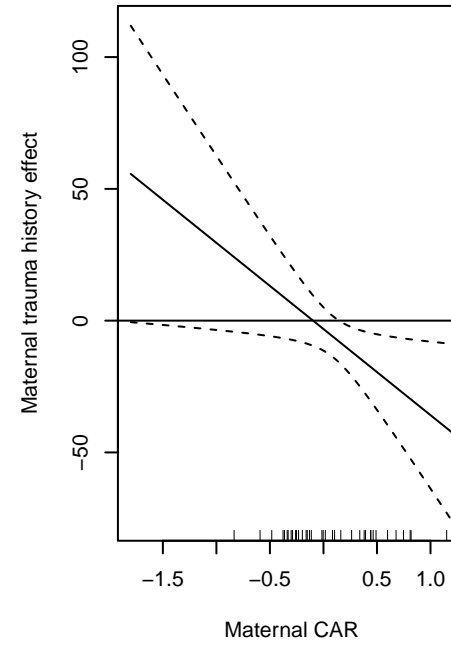
Verbal Memory: Female*



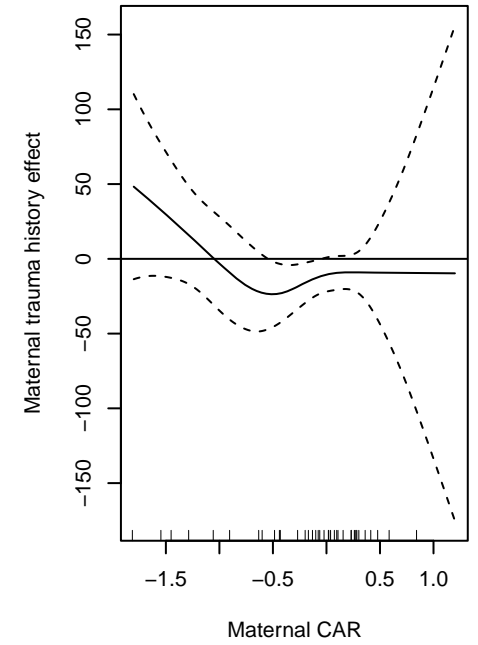
Verbal Memory: Male



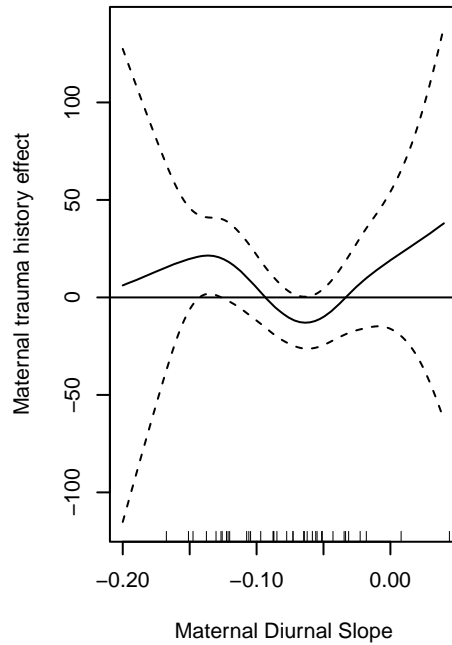
Visual Memory: Female*



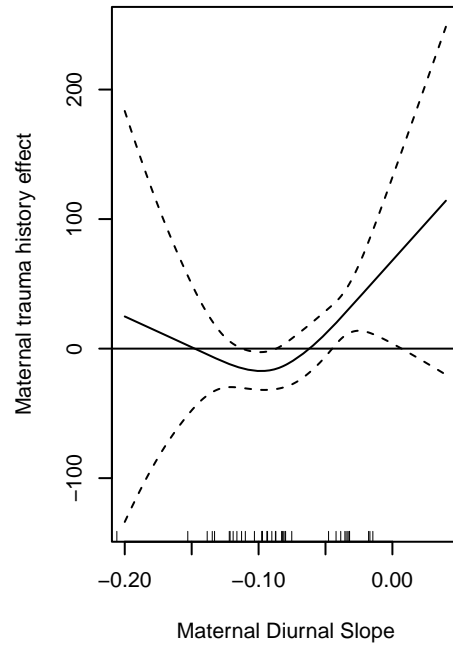
Visual Memory: Male



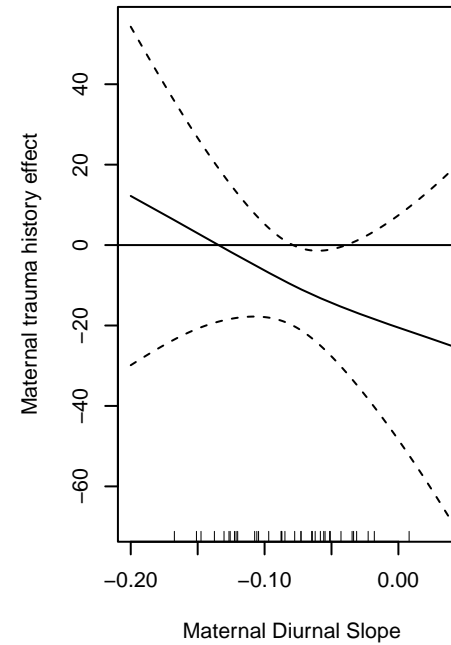
Verbal Memory: Female



Verbal Memory: Male*



Visual Memory: Female



Visual Memory: Male*

