Supplemental Table: Summary of studies reporting on the association between measures of stress and hair cortisol concentrations (HCC) during pregnancy.

Last name, Year	Sample size (N), Recruitment, Age	Scalp hair collection, Laboratory analysis	Stress scale, Time of assessment	Main findings
Scharlau, 2017	N=45, Public advertisements and gynecologists' offices in Germany, ages ≤40	1cm in the 2nd and 3rd trimester, Liquid chromatography	Depression using 9-item PHQ (past 2 weeks), stress, and somatization using the 15-item PHQ (past 4 weeks), 2nd and 3rd trimester	No association between HCC and depression, stress, or somatization scores (magnitudes of association not reported). However, negative correlations with hair cortisone and its ratio to cortisol were found (Pearson correlation coefficients -0.49 to -0.31, p-values <0.04).
Caparros-Gonzalez, 2017	N=44, Prenatal visits in Spain, mean age=32	≤3cm in each trimester and postpartum, immunoassay	Depression using the EPDS (past 7 days) continuous score and using a cutoff of 10, mean=16 days after birth	HCC higher comparing those with postpartum depression to those without at all trimester, p-values <0.05 for 1st and 3rd trimester. In linear regression models 1st and 3rd trimester HCC predicted EPDS scores (Betas were 0.32, p<0.05).
Wilkenius, 2016	N=181, Prenatal visits in Norway, mean age=30	1cm in the 2nd trimester, immunoassay	Depression using the EPDS (past 7 days) continuous score, 2nd trimester	HCC and depression scores were not correlated (Pearson correlation coefficient=0.1, p-value not reported), nor were they associated in multivariable linear regression models (Beta not reported, p=0.38).
Hoffman, 2016	N=90, Prenatal visits in USA, mean ages for term and preterm deliveries were 28 and 32	3cm hair segments in each trimester, immunoassay	14-item perceived stress using the PSS scale, Depression using the CES-D, and anxiety using the STAI-S, each trimester	Education and socioeconomic status were not associated with HCC (p-values >0.05, magnitudes of association not reported). An analysis of 45 correlations found correlations between PSS and 1st and 2nd HCC, CES-D and all trimesters, and STAI-S with the 2nd and 3rd trimesters.
Braig, 2015	N=768, During hospital stay after delivery in Germany, ages 18+	3cm from scalp reflecting the 3rd trimester, HPLC-MS/MS	Chronic stress using the SSCS-TICS (past 3 months) included employment and social burdens, anxiety using the PRAQ-R (time window not reported), and anxiety and depression using HADS subscales (past week)	Stress measures did not correlate with HCC (Spearman correlation coefficient's ranged from 0.0-0.1, p-values >0.06), and no associations were observed in multivariable regression analyses
Kalra, 2007	N=25, Callers requesting medication safety information in Canada, (age range 18-45 years)	1-1.5cm scalp hair collected in the end of the 1st trimester or beginning of the 2nd trimester, immunoassay	Perceived stress using the 10-item PSS scale assessed at the end of the 1st trimester or beginning of the 2nd trimester	HCC and PSS scores were correlated (Spearman correlation coefficient= 0.47, p<0.05)

Abbreviations: SD= standard deviation, cm= centimeter, HPLC-MS/MS= high performance liquid chromatography with tandem mass spectrometry, PHQ= Patient Health Questionnaire, EPDS= Edinburgh Postnatal Depression Scale, PSS= Perceived Stress Scale, CES-D= Center for Epidemiologic Studies-Depression Scale, STAI-S= State-Trait-Anxiety Inventory, SSCS-TICS= screening scale of the Trier Inventory of Chronic Stress, PRAQ-R= revised version of the Pregnancy-Related Anxiety Questionnaire, and HADS= Hospital Anxiety and Depression Scale