Supplementary Table 1. Descriptive Information on LPA Indicators: Overall and Group Differences

	Total sample (*N*=187)	HG (66.8%; *n*=125)	PSYG (17.1%; *n*=32)	PHSG (16%; *n*=30)	F	# Missing
Maternal age	29.64 (6.24)	30.00 (6.23)	28.49 (6.46)	29.39 (6.09)	*F* (2,184) = 0.77	0
Pre-pregnancy BMI	26.09 (5.80)	25.53 (5.32)	28.55 (7.45)	25.73 (5.20)	*F* (2,180) = 3.60* [a]	4
Day: Systolic BP	112.80 (7.32)	110.71 (5.80)	112.12 (6.54)	120.96 (7.57)	*F* (2,103) = 19.94*** [b,c]	81
Day: Diastolic BP	81.51 (5.19)	80.06 (4.46)	80.92 (4.12)	87.30 (4.78)	*F* (2,103) = 19.77*** [b,c]	81
Day: Heart Rate	86.87 (6.17)	86.44 (6.30)	88.66 (6.18)	86.62 (5.66)	*F* (2,103) = 0.99	81
Day: MAP	66.65 (5.35)	65.37 (4.99)	65.80 (4.11)	72.06 (4.45)	*F* (2,103) = 15.08*** [b,c]	81
Night: Systolic BP	105.25 (9.32)	101.97 (5.85)	101.65 (5.52)	120.13 (7.41)	*F* (2,95) = 65.55*** [b,c]	89
Night: Diastolic BP	74.51 (7.05)	72.20 (4.36)	71.38 (4.84)	85.55 (5.80)	*F* (2,95) = 60.35*** [b,c]	89
Night: Heart Rate	80.87 (6.87)	80.44 (6.51)	81.94 (7.39)	81.28 (7.78)	*F* (2,92) = 0.35	92
Night: MAP	59.20 (7.50)	57.02 (4.73)	55.75 (5.88)	70.06 (7.22)[a]	*F* (2,95) = 44.13*** [b,c]	89
Diurnal cortisol (log)	-0.10 (0.15)	-0.11 (0.16)	-0.10 (0.11)	-0.05 (0.11)	*F* (2,70) = 1.07	114
Kcals total	2153.04 (875.89)	1968.25 (784.65)	2240.32 (462.75)	2665.85 (1202.53)	*F* (2,99) = 5.37**[b]	85
Kcals protein	93.09 (41.40)	83.57 (35.85)	100.34 (31.60)	117.04 (54.74)	*F* (2,99) = 5.82** [b]	85

Kcals fat	81.66 (44.62)	72.88 (40.13)	85.67 (38.28)	106.14 (55.01)	*F* (2,99) = 4.63* [b]	85
Kcals carb	267.74 (108.91)	250.57 (101.71)	274.34 (87.49)	316.75 (135.41)	*F* (2,99) = 2.96	85
Kcals added sugar	113.85 (62.16)	101.75 (54.55)	128.61 (70.68)	139.27 (69.44)	*F* (2,99) = 3.57* [b]	85
Average activity	0.60 (0.37)	0.57 (0.34)	0.70 (0.43)	0.56 (0.40)	*F* (2,96) = 1.06	88
PSS	22.35 (8.13)	19.86 (7.49)	28.79 (7.26)	25.05 (7.13)	*F* (2,109) = 12.70*** [a,b]	75
PES happy	60.62 (22.47)	63.57 (23.07)	53.17 (20.92)	58.37 (20.52)	*F* (2,156) = 2.71	28
PES unhappy	20.75 (14.36)	18.46 (13.34)	31.47 (15.93)	17.60 (11.00)	*F* (2,156) = 11.74*** [a,c]	28
PDA negative mood	0.34 (0.37)	0.20 (0.20)	0.73 (0.47)	0.40 (0.41)	*F* (2,96) = 21.40*** [a,b,c]	88
Ham-D	7.51 (6.27)	5.46 (4.16)	15.53 (7.50)	6.14 (4.02)	*F* (2,107) = 34.43*** [a,c]	77
Ham-A	6.64 (5.74)	4.99 (3.87)	13.00 (7.94)	5.62 (3.63)	*F* (2,107) = 22.38*** [a,c]	77
PTSD Index	4.55 (5.86)	2.89 (4.35)	9.60 (7.80)	4.09 (4.25)	*F* (2,114) = 15.14*** [a,c]	70
ISEL appraisal	25.73 (5.16)	28.04 (2.44)	17.59 (5.49)	25.73 (3.46)	*F* (2,158) = 108.84*** [a,b,c]	26
ISEL belonging	24.30 (5.03)	26.55 (3.25)	16.90 (3.89)	23.83 (3.91)	*F* (2,158) = 86.26*** [a,b,c]	26
ISEL tangible support	23.65 (5.25)	26.05 (3.64)	16.66 (4.10)	22.27 (4.27)	*F* (2,158) = 69.63*** [a,b,c]	26

Note: *p<.05, **p<.01, ***p<.001. HG = healthy group; PSYG = psychologically stressed group; PHSG = physically stressed group; BMI = body mass index; BP = blood pressure; MAP = mean arterial pressure; Kcals = calories; PSS = Perceived Stress Scale; PES = Pregnancy Experiences Scale; PDA = Personal Digital Assistant; Ham-D = Hamilton Depression Scale; HAM-A = Hamilton Anxiety Scale; PTSD Index = Posttraumatic Stress Disorder Index; ISEL = Interpersonal Support Evaluation List; [a]=PSYG vs. HG; [b]=PHSG vs. HG; [c]=PSYG vs. PHSG are significant at $p < 0.05$ based on Least Significant Differences (LSD).

Supplementary Table 2. Fetal Sex, Birth Outcomes, and Fetal Neurobehavior by Stress Group

	Total sample (N = 187)	HG (66.8%; n = 125)	PSYG (17.1%; n = 32)	PHSG (16%; n = 30)	F/χ^2	Sex Int.	# Missing
Fetal sex					$\chi^2(2)$ = 6.87*[b]	--	8
Male % (n)	49.7 (89)	56.1 (69)	40.0 (12)	30.8 (8)			
Female % (n)	50.3 (90)	43.9 (54)	60.0 (18)	69.2 (18)			
Birth outcomes							
GA at birth *M (SD)*, weeks	38.74 (3.16)	39.13 (2.05)	38.18 (4.71)	37.60 (4.56)	*F* (2,179) = 3.27*[b]	N	5
Preterm birth, % (n)	8.2 (15)	4.9 (6)	9.4 (3)	22.2 (6)	$\chi^2(2)$ = 8.87**[b]	N	5
Birth weight^ *M (SD)*, g	3319.40 (510.15)	3297.16 (470.53)	3382.68 (637.78)	3354.93 (547.54)	*F* (2,167) = 0.38	N	17
Delivery type % (n)					$\chi^2(4)$ = 6.90	N	25
Vaginal	61.1 (99)	60.2 (68)	65.4 (17)	60.9 (14)			
Assisted vaginal	3.7 (6)	2.7 (3)	11.5 (3)	0 (0)			
Cesarian	35.2 (57)	37.2 (42)	23.1 (6)	39.1 (9)			

Complications	37.6 (68)	35.8 (44)	54.8 (17)	25.9 (7)	$\chi^2(2)$ = 5.67* [c]	N	6
NICU involvement (y)	4.0 (6)	3.0 (3)	7.4 (2)	4.5 (1)	$\chi^2(2)$ = 1.09	NA[d]	38
Baby length of stay, *M (SD)*, days	2.87 (1.12)	2.74 (0.86)	3.44 (2.00)	2.85 (0.88)	*F* (2,105) = 2.61* [a]	N	79
Mom length of stay, *M (SD)*, days	3.21 (3.55)	3.32 (4.31)	2.89 (0.74)	3.05 (0.95)	*F* (2,120) = 0.14	N	64
Fetal neuro-behavior							
FHR movement coupling *M (SD)*	0.53 (0.13)	0.56 (0.12)	0.52 (0.13)	0.45 (0.14)	*F* (2,84) = 4.92** [b]	N	100
HR reactivity *M (SD)*, bpm	-0.93 (5.82)	-1.25 (5.49)	-1.25 (5.95)	1.29 (7.27)	*F* (2,118) = 1.25	Y	66

*p<.05, **p<.01, ***p<.001. HG = healthy group; PSYG = psychologically stressed group; PHSG = physically stressed group; Identical superscripts within a row indicate significant differences based on Least Significant Differences (LSD) for continuous variables or Fisher's exact test for categorical variables; a=PSYG vs. HG; b=PHSG vs. HG; c=PSYG vs. PHSG; FHR = fetal heart rate; HR = heart rate; ^raw estimates are presented here but analyses were also conducted with birth weight corrected for gestational age by using the residuals from a regression model predicting birth weight from gestational age at birth as the dependent variable; NICU = neonatal intensive care unit; Sex Int. = Significant group by sex interaction; Y/N = yes/no based on p<0.05; [d]the logistic regression with sex interaction did not converge due to low prevalence of NICU involvement.

Supplementary Table 3. Sensitivity Analysis Removing 12 Women with Prenatal Physical Health Conditions

	Total sample (N = 175)	HG (68%; n = 119)	PSYG (16.6%; n = 29)	PHSG (15.4%; n = 27)	F/χ^2
Fetal sex					$\chi^2(2)$ = 7.51*[b]
Male % (n)	50.3 (84)	56.4 (66)	44.4 (12)	26.1 (6)	
Female % (n)	49.7 (83)	43.6 (51)	65.6 (15)	73.9 (17)	
Birth outcomes					
GA at birth *M (SD)*, weeks	38.73 (3.25)	39.11 (2.09)	38.11 (4.95)	37.60 (4.82)	*F* (2,169) = 2.87+ [b]
Preterm birth, % (n)	8.2 (14)	5.1 (6)	10.3 (3)	20.8 (5)	$\chi^2(2)$ = 6.71* [b]
Fetal neuro-behavior					
FHR movement coupling *M (SD)*	0.53 (0.14)	0.55 (0.14)	0.52 (0.13)	0.46 (0.13)	*F* (2,82) = 2.40+ [b]

*$p < 0.05$, +$p < 0.10$

Supplementary Table 4. Regression Analyses Predicting Baby Sex, Preterm Birth, Gestational Age at Birth, and Fetal Heart Rate-Fetal Movement Coupling Controlling for the Composite Social Support score

Outcome variable	*Predictors*	*Odds Ratios/β*	*CI*	*p*	
Baby sex	Psychologically stressed (vs. Healthy)	1.19	0.29 – 4.88	0.808	
	Physically stressed (vs. Healthy)	2.55	0.96 – 6.77	0.061	
	Physically stressed(vs. Psychologically stressed)	2.14	0.53 – 8.57	0.283	
	Social support	0.98	0.94 – 1.02	0.348	
Preterm birth	Psychologically stressed (vs. Healthy)	0.79	0.07 – 8.46	0.848	
	Physically stressed (vs. Healthy)	4.07	1.03 – 16.09	0.045	*
	Physically stressed(vs. Psychologically stressed)	5.13	0.68 – 38.57	0.112	
	Social support	0.97	0.91 – 1.03	0.262	
GA at birth	Psychologically stressed (vs. Healthy)	0.85	-1.25 – 2.95	0.430	
	Physically stressed (vs. Healthy)	-1.06	-2.46 – 0.33	0.136	
	Physically stressed(vs. Psychologically stressed)	-1.91	-3.90 – 0.08	0.062	
	Social support	0.07	0.01 – 0.12	0.023	*
Fetal heart rate-fetal movement coupling	Psychologically stressed (vs. Healthy)	-0.08	-0.18 – 0.03	0.160	
	Physically stressed (vs. Healthy)	-0.11	-0.18 – -0.04	0.003	**
	Physically stressed(vs. Psychologically stressed)	-0.04	-0.14 – 0.06	0.484	
	Social support	0	-0.00 – 0.00	0.493	

*p<0.05, **p<0.01

Supplementary Table 5. Social Determinants of Health Associated with Stress Group Membership

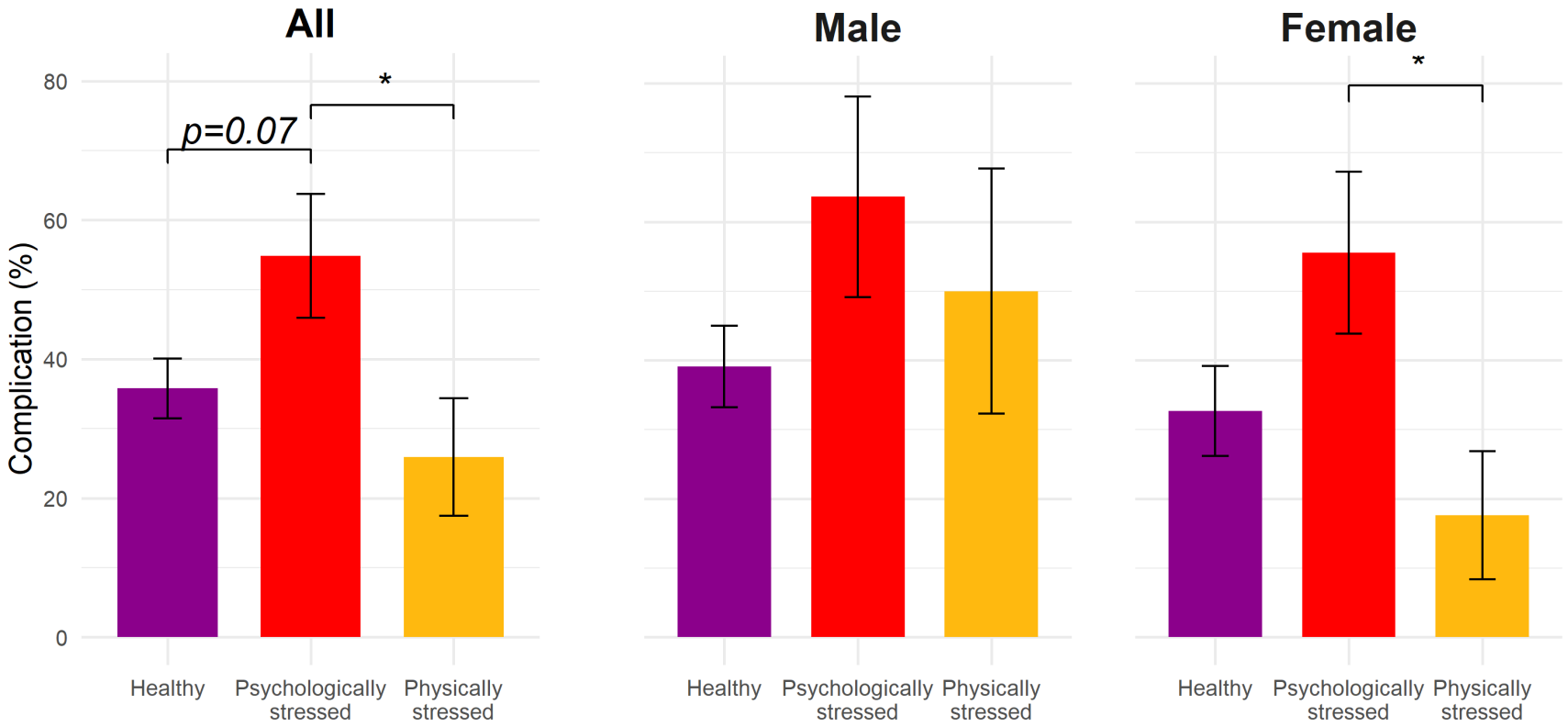
	Total sample (N = 187)	HG (66.8%; n=125)	PSYG (17.1%; n = 32)	PHSG (16%; n =30)	F/χ^2	# *Missing*
Hispanic ethnicity % (n)	69.7 (129)	63.4 (78)	90.6 (29)	73.3 (22)	$\chi^2(2)$ = 9.13** [a]	*2*
Education (years) *M (SD)*	14.87 (3.08)	15.20 (3.02)	13.39 (2.00)	15.12 (3.83)	*F* (2,183) = 4.66** [a,c]	1
Household income % (n)					$\chi^2(6)$ = 30.12*** [a,c]	0
<$15,000	14.4 (27)	9.6 (12)	40.6 (13)	6.7 (2)		
$16,000-$50,000	41.2 (77)	37.6 (47)	40.6 (13)	56.7 (17)		
$51,000-$100,000	25.1 (47)	28.0 (35)	18.8 (6)	20.0 (6)		
>$100,000	19.3 (36)	24.8 (31)	0.0 (0)	16.7 (5)		
Medicaid (yes) %(n)	50.5 (93)	42.3 (52)	77.4 (24)	56.7 (17)	$\chi^2(2)$ = 12.77*** [a]	3
WIC (yes) % (n)	43.3 (81)	36.0 (45)	71.9 (23)	43.3 (13)	$\chi^2(2)$ = 13.35*** [a,c]	0
Other public assistance % (n)	25.1 (46)	19.7 (24)	46.9 (15)	24.1 (7)	$\chi^2(2)$ = 9.99** [a]	4
Baby's father involved (yes) % (n)	94.8 (163)	95.7 (112)	89.7 (26)	96.2 (25)	$\chi^2(2)$ = 1.85	15

First pregnancy (yes) % (n)	24.6 (46)	24.0 (30)	21.9 (7)	30.0 (9)	$\chi^2(2) = 0.62$	0
Number of prior pregnancies *M (SD)*	2.01 (2.09)	1.74 (1.74)	2.97 (2.90)	2.07 (2.17)	*F* (2,182) = 4.56** [a]	2
Number of children *M (SD)*	0.84 (0.94)	0.80 (0.95)	1.19 (1.03)	0.61 (0.69)	*F* (2,180) = 3.25* [a,c]	4
Number of miscarriages *M (SD)*	0.61 (0.95)	0.55 (0.89)	0.77 (1.09)	0.66 (1.04)	*F* (2,178) = 0.7	6
Number of abortions *M (SD)*	0.62 (1.16)	0.45 (0.78)	1.06 (1.79)	0.82 (1.49)	*F* (2,173) = 4.01**[a]	11
Childhood Trauma *M (SD)*						
Emotional abuse	7.78 (3.77)	7.17 (3.15)	10.29 (4.74)	7.21 (3.63)	*F* (2,158) = 9.42*** [a,c]	26
Sexual abuse	6.57 (3.83)	6.50 (3.92)	7.13 (4.38)	6.21 (2.82)	*F* (2,155) = 0.47	29
Physical abuse	6.66 (2.83)	6.44 (2.88)	7.42 (2.95)	6.59 (2.44)	*F* (2,157) = 1.44	27
Emotional neglect	8.97 (4.51)	7.57(3.05)	13.03 (5.29)	9.48 (5.24)	*F* (2,158) = 22.24*** [a,b,c]	26

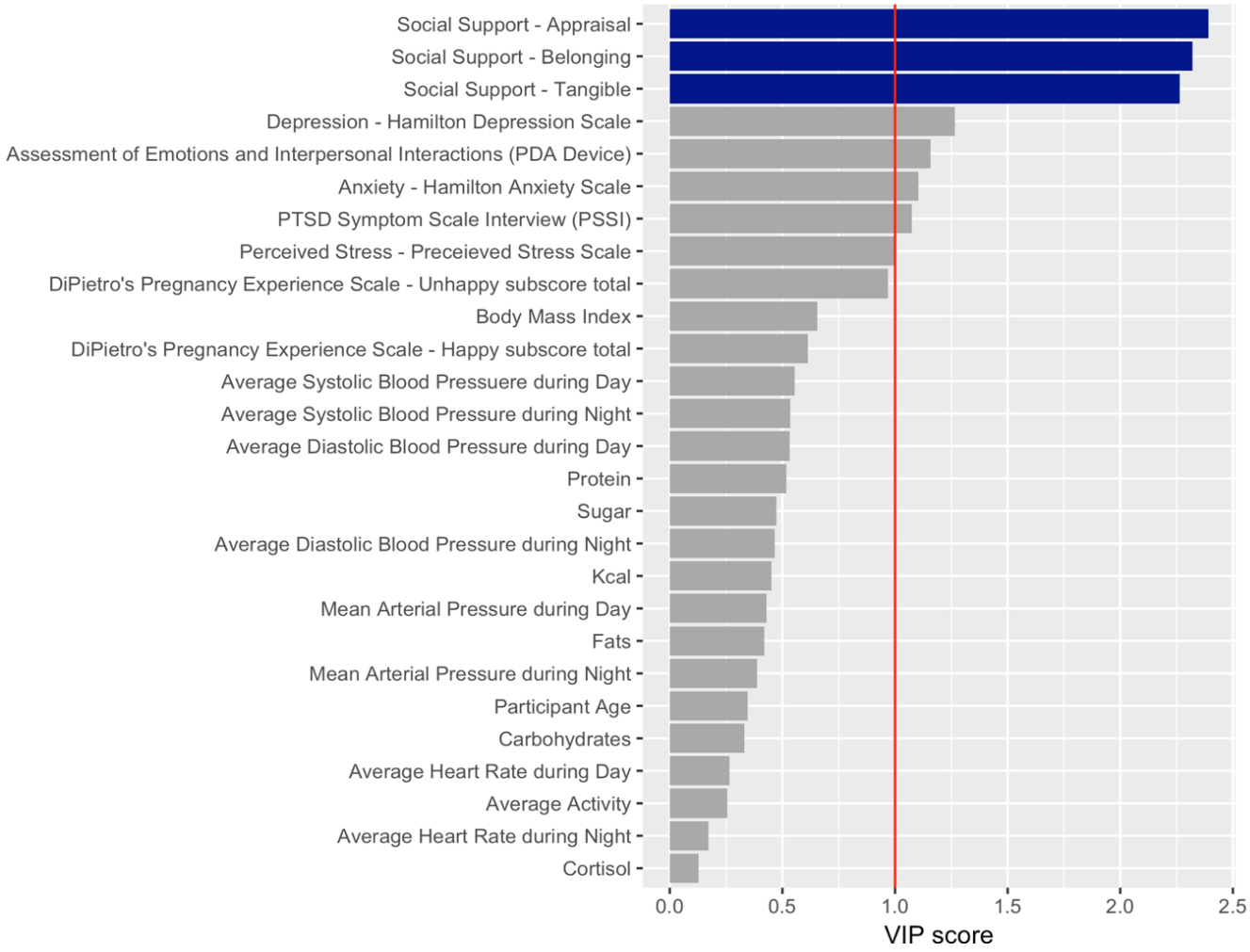
Physical neglect	6.11 (2.23)	5.58 (1.61)	7.83 (3.35)	6.14 (1.75)	*F* (2,157) = 13.71*** a,c	27
Parental Bonding Index						
M (SD)						
Mother: care	27.72 (8.61)	29.48 (7.05)	21.90 (9.82)	27.40 (9.92)	*F* (2,166) = 10.41*** a,c	18
Mother: overprotection	14.22 (7.54)	13.23 (7.17)	17.87 (9.03)	14.00 (6.13)	*F* (2,166) = 4.78** a,c	18
Father: care	25.97 (9.07)	27.76 (7.88)	18.54 (10.94)	26.42 (7.80)	*F* (2,150) = 12.34*** a,c	34
Father: overprotection	13.35 (7.36)	12.51 (7.28)	15.77 (7.54)	14.19 (7.14)	*F* (2,150) = 2.26* a	34

*p<.05, **p<.01, ***p<.001. HG = healthy group; PSYG = psychologically stressed group; PHSG = physically stressed group; Superscripts within a row indicate significant differences based on Least Significant Differences (LSD) for continuous variables or Fisher's exact test for categorical variables; a=PSYG vs. HG; b=PHSG vs. HG; c=PSYG vs. PHSG; WIC = Women Infant Children

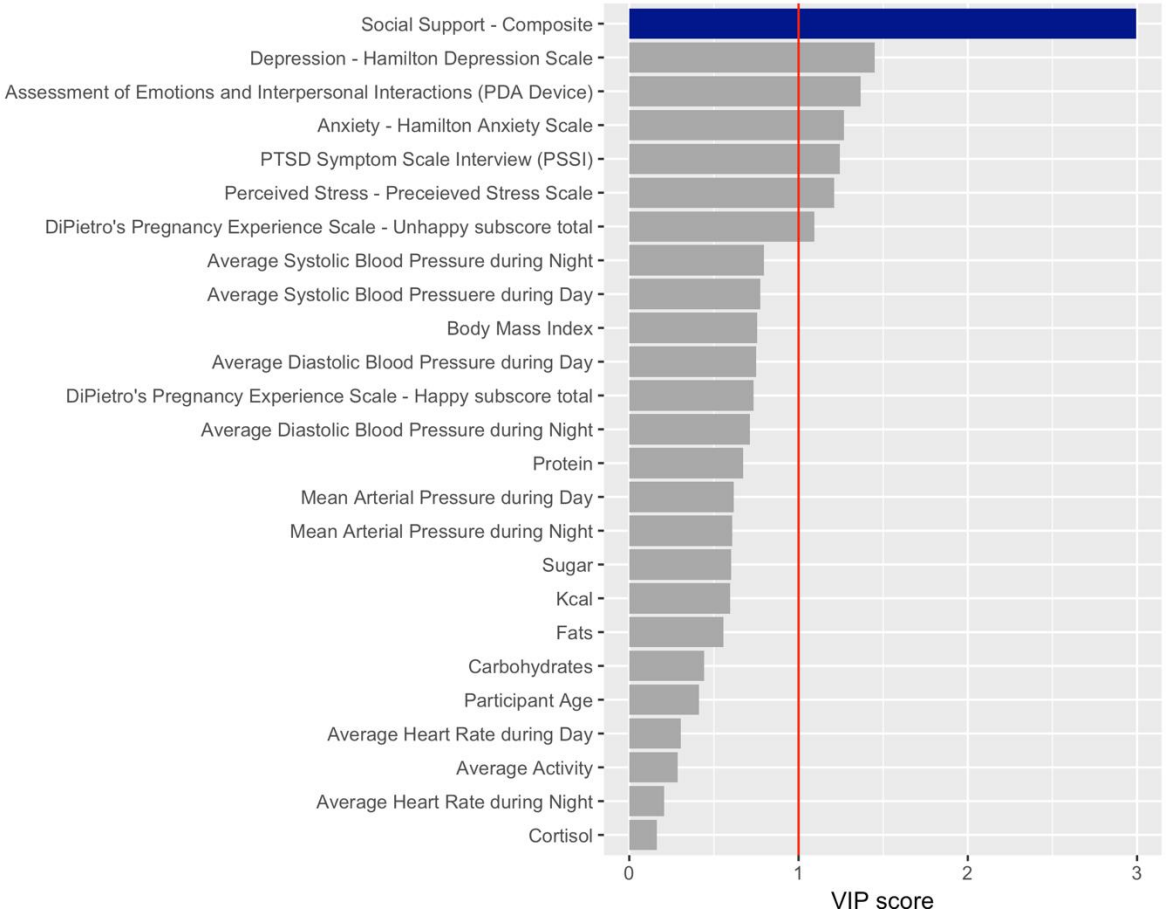
Supplementary Figure 1. Chi square differences in complications (%) by maternal stress groups (*$p < 0.05$) with standard error bars are presented for all participants ($n = 181$) on the left and by fetal sex ($n = 175$) on the right. Complications included any pre-, peri-, or postnatal reports of infection, preeclampsia, vascular problems, or diabetes mellitus.



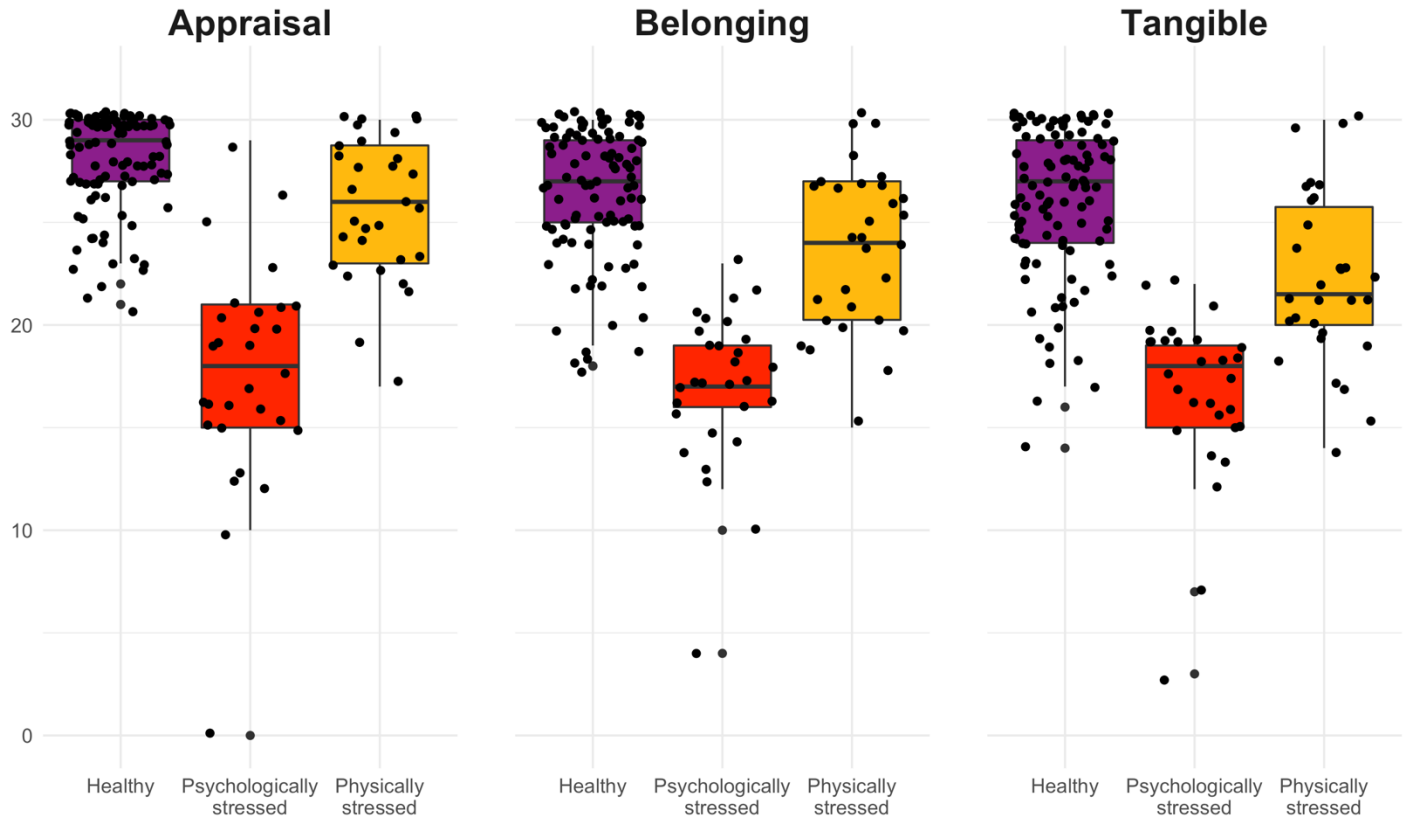
Supplementary Figure 2. Partial least squares discriminant analysis was used to evaluate the relative influence of the 27 maternal stress indicator variables in the creation of the latent profiles. Variable Importance in Projection (VIP) scores that extend to the right beyond the vertical red line are > 1 and significantly differentiate the latent stress profiles. Seven variables were considered significant according to VIP scores >1; the top three variables depicted in navy are different elements of social support, which all have VIP scores of 2.25 and higher.



Supplementary Figure 3. To ensure that the inclusion of multiple social support variables did not overly influence the Latent Profile Analysis, we estimated a sensitivity partial least squares discriminant analysis with the composite social support score in lieu of the three separate social support variables. Variable Importance in Projection (VIP) scores that extend to the right beyond the vertical red line are > 1 significantly differentiate the latent stress profiles. The social support composite score is depicted in blue.



Supplementary Figure 4 – Boxplots depict individual data points and mean Appraisal, Belonging, and Tangible social support values by maternal stress profiles; 26 of 187 participants were missing social support variables.



Supplementary Figure 5. Odds ratios of male fetus and their 95% confidence intervals by social support variables relative to the lowest social support levels. Each social support variable was divided by their quartiles. The ranges of the social support variables are displayed in parentheses. For belonging and tangible, higher social support was associated with greater likelihood of a male fetus being born.