

Emotion regulation is robustly associated with perinatal depressive symptoms in a Swedish national cohort

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Results

Emotion regulation across the perinatal period

Pearson correlation analysis showed that the DERS-16 total score assessed between 16-25 weeks antenatal was strongly correlated with DERS-16 total score assessed between 17-25 weeks postnatal ($r(197) = .655, p < .001$). Further, we conducted paired samples t-test to assess differences in DERS-16 total score between the perinatal assessment time points. While DERS-16 total score was slightly higher in the postnatal ($\text{Mean}_{\text{postnatal}} = 32.45, \text{SD}_{\text{postnatal}} = 13.67, 95\% \text{ CI } [30.54, 34.36]$) compared to the antenatal assessment ($\text{Mean}_{\text{antenatal}} = 31.08, \text{SD}_{\text{antenatal}} = 12.44, 95\% \text{ CI } [29.34, 31.81]$), no significant difference in DERS-16 total score between the two time points was found ($t(198) = -1.78, p = .076$).

Supplementary Table 1. Linear regression models on Edinburgh Postnatal Depression Scale (EPDS) total score across perinatal the time points (outcome).

(Outcome)	Exposure /	(1)	(2)	(3)
EPDS total score across perinatal time points	Potential confounders	Unadjusted	Adjusted for potential confounders – EPDS total score 12-22 w antenatal	Adjusted for potential confounders + EPDS total score 12-22 w antenatal
24-34 w antenatal			$R^2 = .42^{***}$	$R^2 = .42^{***}$
			N = 423	N = 423
	DERS-16	.22 (.19 to .25) ***	.15 (.11 to .19) ***	.15 (.11 to .19) ***
	age	-.10 (-.19 to 0.00) <i>ns</i>	-.07 (-.17 to .03) <i>ns</i>	-.07 (-.17 to .03) <i>ns</i>
	BMI	.15 (.06 to .23) ***	.11 (.04 to .18) *	.11 (.04 to .18) *
	university education	-.1.06 (-2.01 to -.10) *	-0.05 (-.96 to .87) <i>ns</i>	-0.05 (-.96 to .87) <i>ns</i>
	parity	.24 (.01 to .46) *	.27 (.03 to .51) *	.27 (.03 to .51) *
	pregnancy loss	.78 (-.20 to 1.71) <i>ns</i>	.37 (-.58 to 1.31) <i>ns</i>	.37 (-.58 to 1.31) <i>ns</i>
	depression history	.76 (-.20 to 1.71) <i>ns</i>	.32 (-.54 to 1.19) <i>ns</i>	.32 (-.54 to 1.19) <i>ns</i>
	PMS	3.10 (1.63 to 4.57) ***	1.15 (-.20 to 2.50) <i>ns</i>	1.15 (-.20 to 2.50) <i>ns</i>
	OC mood	.93 (.04 to 1.83) *	.41 (-.40 to 1.22) <i>ns</i>	.41 (-.40 to 1.22) <i>ns</i>
	FOBS 13-42 w an	.07 (.05 to .08) ***	.04 (.02 to .06) ***	.04 (.02 to .06) ***
	RS-14 20-42 w an	-.18 (-.21 to -.15) ***	-.06 (-.10 to -.01) *	-.06 (-.10 to -.01) *
	SOC-13 18-42 w an	-.26 (-.32 to -.19) ***	-.06 (-.13 to .01) <i>ns</i>	-.06 (-.13 to .01) <i>ns</i>
	VPSQ 32-42 w an	.37 (.25 to .48) ***	-.04 (.08 to .29) <i>ns</i>	-.04 (.08 to .29) <i>ns</i>
36-42 w antenatal			$R^2 = .43^{***}$	$R^2 = .43^{***}$
			N = 365	N = 365
	DERS-16	.23 (.19 to .26) ***	.15 (.11 to .20) ***	.15 (.11 to .20) ***
	age	-.01 (-.13 to .11) <i>ns</i>	.03 (-.08 to .13) <i>ns</i>	.03 (-.08 to .13) <i>ns</i>
	BMI	.15 (.06 to .23) ***	.11 (.03 to .18) *	.11 (.03 to .18) *
	university education	-.60 (-1.75 to .56) <i>ns</i>	.06 (-.94 to 1.06) <i>ns</i>	.06 (-.94 to 1.06) <i>ns</i>
	parity	.19 (-.08 to .47) <i>ns</i>	.09 (-.17 to .36) <i>ns</i>	.09 (-.17 to .36) <i>ns</i>
	pregnancy loss	1.31 (.16 to 2.45) *	.95 (-.09 to 1.99) <i>ns</i>	.95 (-.09 to 1.99) <i>ns</i>
	depression history	3.16 (2.12 to 4.20) ***	1.12 (.17 to 2.06) *	1.12 (.17 to 2.06) *
	PMS	2.64 (.86 to 4.42) *	.52 (-.95 to 2.00) <i>ns</i>	.52 (-.95 to 2.00) <i>ns</i>
	OC mood	1.13 (.06 to 2.21) *	.61 (-.28 to 1.49) <i>ns</i>	.61 (-.28 to 1.49) <i>ns</i>
	FOBS 13-42 w an	.07 (.05 to .09) ***	.04 (.02 to .06) ***	.04 (.02 to .06) ***
	RS-14 20-42 w an	-.16 (-.20 to -.12) ***	0.00 (-.05 to .04) <i>ns</i>	0.00 (-.05 to .04) <i>ns</i>
	SOC-13 18-42 w an	-.27 (-.35 to -.20) ***	-.09 (-.17 to -.02) *	-.09 (-.17 to -.02) *
	VPSQ 32-42 w an	.47 (.35 to .60) ***	.10 (-.03 to .23) <i>ns</i>	.10 (-.03 to .23) <i>ns</i>
BIRTH				
1-4 w postnatal			$R^2 = .33^{***}$	$R^2 = .36^{***}$
			N = 332	N = 312
	DERS-16	.17 (.13 to .22) ***	.08 (.03 to .13) ***	.06 (.00 to .11) *
	age	-.01 (-.14 to .12) <i>ns</i>	.07 (-.05 to .20) <i>ns</i>	.09 (-.04 to .22) <i>ns</i>
	BMI	.09 (-.01 to .19) <i>ns</i>	.08 (-.01 to .17) <i>ns</i>	.06 (-.03 to .15) <i>ns</i>
	university education	.83 (-.42 to 2.09) <i>ns</i>	1.0 (-.19 to 2.19) <i>ns</i>	.96 (-.26 to 2.18) <i>ns</i>
	parity	-.06 (-.36 to .24) <i>ns</i>	.01 (-.31 to .32) <i>ns</i>	-.04 (-.36 to .29) <i>ns</i>

	pregnancy loss	.19 (-1.06 to 1.43) <i>ns</i>	.20 (-1.03 to 1.43) <i>ns</i>	.14 (-1.12 to 1.40) <i>ns</i>
	depression history	1.96 (.80 to 3.12) ***	0.00 (-1.13 to 1.13) <i>ns</i>	-.23 (-1.39 to .93) <i>ns</i>
	PMS	3.80 (1.89 to 5.71) ***	2.10 (.34 to 3.84) *	2.19 (.40 to 3.98) *
	OC mood	1.73 (.58 to 2.89) *	1.32 (.27 to 2.37) *	1.25 (.18 to 2.32) *
	FOBS 13-42 w an	.04 (.02 to .06) ***	.01 (-.01 to .03) <i>ns</i>	.01 (-.01 to 0.3) <i>ns</i>
	RS-14 20-42 w an	-.15 (-.20 to -.10) ***	-.03 (-.08 to .02) <i>ns</i>	-.01 (-.07 to .33) <i>ns</i>
	SOC-13 18-42 w an	-.22 (-.30 to -.13) ***	-.03 (-.12 to .06) <i>ns</i>	-.02 (-.11 to .07) <i>ns</i>
	VPSQ 32-42 w an	.55 (.41 to .68) ***	.28 (.13 to .43) ***	.26 (.11 to .42) ***
	delivery experience	-.08 (-.10 to -.05) ***	-.04 (-.07 to -.02) ***	-.05 (-.08 to -.02) ***
	neonatal issues 0-2 w pn	-.08 (-.10 to -.05) ***	1.80 (.20 to 3.4) *	1.92 (.28 to 3.56) *
	EPDS w 12-22 an	.41 (-.30 to .52) ***	NA	.20 (.07 to .33) *
			R ² = .34 ***	R ² = .38 ***
			N = 282	N = 262
6-13 w postnatal	DERS-16	.18 (.13 to .22) ***	.09 (.04 to .14) ***	.06 (.00 to .11) *
	age	-.10 (-.23 to .03) <i>ns</i>	-.04 (-.16 to .09) <i>ns</i>	-.01 (-.14 to .12) <i>ns</i>
	BMI	.11 (.01 to .21) *	.09 (0.00 to .18) *	-.06 (-.03 to .15) <i>ns</i>
	university education	.07 (-1.21 to 1.34) <i>ns</i>	.72 (-.48 to 1.93) <i>ns</i>	.67 (-.55 to 1.90) <i>ns</i>
	parity	-.09 (-.39 to .21) <i>ns</i>	.18 (-.14 to .49) <i>ns</i>	.13 (-.20 to .45) <i>ns</i>
	pregnancy loss	-1.25 (-2.51 to .01) <i>ns</i>	-1.50 (-2.75 to -.26) *	1.58 (-2.85 to -.32) *
	depression history	2.27 (1.10 to 3.44) ***	.71 (-.43 to 1.85) <i>ns</i>	.42 (-.75 to 1.58) <i>ns</i>
	PMS	2.13 (.17 to 4.10) *	.03 (-1.75 to 1.80) <i>ns</i>	.16 (-1.65 to 1.96) <i>ns</i>
	OC mood	1.67 (.49 to 2.85) *	1.32 (.26 to 2.38) *	1.23 (.15 to 2.31) *
	FOBS 13-42 w an	.05 (.03 to .08) ***	.03 (.00 to .05) *	.02 (.00 to .04) *
	RS-14 20-42 w an	-.16 (-.21 to -.12) ***	-.06 (-.12 to -.01) *	-.04 (-.09 to .02) <i>ns</i>
	SOC-13 18-42 w an	-.21 (-.29 to -.12) ***	-.02 (-.11 to .07) <i>ns</i>	-.01 (-.10 to .09) <i>ns</i>
	VPSQ 32-42 w an	.43 (.29 to .57) ***	.12 (-.03 to .27) <i>ns</i>	.10 (-.06 to .25) <i>ns</i>
	delivery experience	-.05 (-.08 to -.02) ***	-.02 (-.05 to .01) <i>ns</i>	-.03 (-.05 to 0.00) <i>ns</i>
	neonatal issues 0-2 w pn	-.05 (-.08 to -.02) ***	1.15 (-.47 to 2.77) <i>ns</i>	1.30 (-.35 to 3.0) <i>ns</i>
	EPDS w 12-22 an	.46 (.36 to .57) ***	NA	.25 (.12 to .39) ***
			R ² = .46 ***	R ² = .57 ***
			N = 224	N = 211
14-23 w postnatal	DERS-16	.21 (.17 to .26) ***	.15 (.09 to .20) ***	.10 (.04 to .15) ***
	age	-.05 (-.20 to 1.00) <i>ns</i>	.07 (-.06 to .21) <i>ns</i>	.12 (-.01 to .24) <i>ns</i>
	BMI	.18 (.07 to .29) *	.17 (-.07 to .26) ***	.13 (.04 to .21) *
	university education	-.65 (-2.12 to .82) <i>ns</i>	-.16 (-1.42 to 1.10) <i>ns</i>	-.24 (-1.42 to .94) <i>ns</i>
	parity	-.07 (-.42 to .27) <i>ns</i>	.08 (-.25 to .41) <i>ns</i>	-.01 (-.32 to .31) <i>ns</i>
	pregnancy loss	-.75 (-2.21 to .70) <i>ns</i>	-1.09 (-2.40 to .21) <i>ns</i>	-1.22 (-2.44 to .01) <i>ns</i>
	depression history	1.72 (.36 to 3.09) *	-.12 (-1.31 to 1.07) <i>ns</i>	-.60 (-1.73 to .52) <i>ns</i>
	PMS	1.27 (-1.01 to 3.55) <i>ns</i>	-.45 (-2.31 to 1.40) <i>ns</i>	-.24 (-1.98 to 1.50) <i>ns</i>
	OC mood	1.90 (.55 to 3.26) *	1.68 (.58 to 2.80) *	1.54 (.50 to 2.58) *
	FOBS 13-42 w an	.05 (.02 to .07) ***	.01 (-.01 to .03) <i>ns</i>	0.00 (-.02 to .02) <i>ns</i>
	RS-14 20-42 w an	-.19 (-.24 to -.14) ***	-.07 (-.13 to -.01) *	-.03 (-.09 to .03) <i>ns</i>
	SOC-13 18-42 w an	-.21 (-.31 to -.11) ***	.01 (-.08 to .11) <i>ns</i>	.03 (-.06 to .12) <i>ns</i>
	VPSQ 32-42 w an	.45 (.29 to .61) ***	.08 (-.08 to .24) <i>ns</i>	.04 (-.11 to .19) <i>ns</i>
	delivery experience	-.08 (-.12 to -.05) ***	-.06 (-.09 to -.03) ***	-.07 (-.10 to -.04) ***
	neonatal issues 0-2 w pn	-.08 (-.12 to -.05) ***	-2.00 (-3.67 to -.28) *	-1.72 (-3.31 to -.13) *
	EPDS w 12-22 an	.60 (.49 to .71) ***	NA	.42 (.29 to .54) ***

		$R^2 = .34^{***}$		$R^2 = .39^{***}$
		N = 155		N = 149
24-35 w postnatal	DERS-16	.15 (.10 to .21) ***	.06 (-.01 to .13) +	.03 (-.05 to .10) <i>ns</i>
	age	-.05 (-.23 to .13) <i>ns</i>	.02 (-.16 to .20) <i>ns</i>	.05 (-.14 to .23) <i>ns</i>
	BMI	.15 (.02 to .29) *	.12 (0.00 to .25) <i>ns</i>	.10 (-.03 to .22) <i>ns</i>
	university education	-.17 (-1.93 to 1.59) <i>ns</i>	.40 (-1.33 to 2.12) <i>ns</i>	.34 (-1.38 to 2.07) <i>ns</i>
	parity	-.11 (-.53 to .30) <i>ns</i>	-.07 (-.52 to .39) <i>ns</i>	-.12 (-.58 to .33) <i>ns</i>
	pregnancy loss	-.08 (-1.82 to 1.67) <i>ns</i>	.01 (-1.78 to 1.79) <i>ns</i>	-.08 (-1.86 to 1.71) <i>ns</i>
	depression history	2.50 (.89 to 4.11) *	1.12 (-.52 to 2.75) <i>ns</i>	.80 (-.84 to 2.45) <i>ns</i>
	PMS	2.12 (-.60 to 4.84) <i>ns</i>	.33 (-2.21 to 2.87) <i>ns</i>	.47 (-2.07 to 3.01) <i>ns</i>
	OC mood	2.25 (.64 to 3.86) *	2.12 (.60 to 3.64) *	2.02 (.51 to 3.54) *
	FOBS 13-42 w an	.06 (.03 to .09) ***	.03 (.00 to .06) *	.03 (-.01 to .06) <i>ns</i>
	RS-14 20-42 w an	-.16 (-.23 to -.10) ***	-.08 (-.15 to 0.00) <i>ns</i>	-.05 (-.13 to .03) <i>ns</i>
	SOC-13 18-42 w an	-.18 (-.30 to -.06) *	-.01 (-.13 to .12) <i>ns</i>	.01 (-.12 to .14) <i>ns</i>
	VPSQ 32-42 w an	.40 (.20 to .59) ***	.07 (-.15 to .29) <i>ns</i>	.04 (-.18 to .26) <i>ns</i>
	delivery experience	-.07 (-.11 to -.03) *	-.04 (-.08 to -.01) *	-.05 (-.09 to -.01) *
	neonatal issues 0-2 w pn	-.07 (-.11 to -.03) *	-.52 (-2.85 to 1.80) <i>ns</i>	-.36 (-2.68 to 1.97) <i>ns</i>
		.46 (.32 to .61) ***	NA	.27 (.09 to .46) *
		$R^2 = .68^{***}$		$R^2 = .76^{***}$
		N = 93		N = 92
36-49 w postnatal	DERS-16	.22 (.15 to .29) ***	.09 (.02 to .16) *	.04 (-.02 to .11) <i>ns</i>
	age	-.13 (-.37 to .12) <i>ns</i>	-.05 (-.23 to .13) <i>ns</i>	-.02 (-.18 to .15) <i>ns</i>
	BMI	.23 (.06 to .41) *	.20 (.07 to .32) *	.16 (.05 to .27) *
	university education	-.91 (-3.32 to 1.49) <i>ns</i>	.02 (-1.68 to 1.71) <i>ns</i>	-.05 (-1.57 to 1.47) <i>ns</i>
	parity	-.08 (-.64 to .49) <i>ns</i>	.09 (-.36 to .54) <i>ns</i>	.02 (-.38 to .42) <i>ns</i>
	pregnancy loss	0.00 (-2.38 to 2.39) <i>ns</i>	-.15 (-1.91 to 1.61) <i>ns</i>	-.25 (-1.83 to 1.32) <i>ns</i>
	depression history	3.44 (1.31 to 5.57) *	1.71 (.10 to 3.32) *	1.30 (-.15 to 2.75) <i>ns</i>
	PMS	2.56 (-1.14 to 6.26) <i>ns</i>	.44 (-2.06 to 2.94) <i>ns</i>	.62 (-1.62 to 2.86) <i>ns</i>
	OC mood	1.76 (-.46 to 3.98) <i>ns</i>	1.46 (-.04 to 2.96) <i>ns</i>	1.34 (-.01 to 2.68) <i>ns</i>
	FOBS 13-42 w an	.08 (.04 to .12) ***	.05 (.02 to .08) *	.04 (.01 to .07) *
	RS-14 20-42 w an	-.24 (-.31 to -.16) ***	-.09 (-.17 to -.01) *	-.06 (-.13 to .01) <i>ns</i>
	SOC-13 18-42 w an	-.30 (-.45 to -.14) ***	-.06 (-.19 to .07) <i>ns</i>	-.05 (-.16 to .07) <i>ns</i>
	VPSQ 32-42 w an	.53 (.28 to .78) ***	.06 (-.16 to .27) <i>ns</i>	.02 (-.17 to .22) <i>ns</i>
	delivery experience	-.10 (-.15 to -.04) ***	-.07 (-.11 to -.03) ***	-.08 (-.11 to -.04) ***
	neonatal issues 0-2 w pn	-.10 (-.15 to -.04) ***	-2.74 (-5.03 to -.46) *	-2.53 (-4.58 to -.48) *
		.65 (.48 to .81) ***	NA	.35 (.19 to .51) ***

ns $p \geq .196$, + $p = .111$, * $p < .050$, *** $p \leq .001$; an: antenatal; pn: postnatal; w: weeks

Note. Models are corrected for (1) no other potential confounders variables (2) potential confounders excluding EPDS total score 12-22 weeks antenatal and (3) potential confounders including EPDS total score 12-22 weeks antenatal. R^2 , N, beta coefficients, and 95% confidence interval are reported.

Included variables: DERS-16: Deficits in Emotion Regulation Scale-16 total score 16-25 weeks antenatal (exposure); BMI: pre-pregnancy BMI; university level education (vs less); parity;

pregnancy loss: pregnancy loss history (vs never); depression history: self-reported depression history with professional help (vs no); PMS: past treatment for premenstrual disorder (vs never); OC mood: mental health issues due to oral contraceptives (vs never); FOBS: Fear of Birth Scale, mean total score 13-42 weeks antenatal; RS-14: Resilience Scale-14 total score 20-42 weeks antenatal; SOC-13: Sense of coherence-13 total score 18-42 weeks antenatal; VPSQ: Vulnerable Personality Style Questionnaire total score 32-42 weeks antenatal (all potential confounders); Postnatal EPDS outcomes were additionally adjusted for delivery experience, neonatal issues up to two weeks postnatal, and in Model 3 also for EPDS: Edinburgh Postnatal Depression Scale total score at 12-22 weeks antenatal.

Supplementary Table 2. Edinburgh Postnatal Depression Scale (EPDS) mean total scores (standard error) [95% confidence interval] for each assessment time point across the perinatal period for the five distinct perinatal depression trajectory groups.

	Perinatal depression trajectory group (based on EPDS scores across perinatal time points)					
	Healthy	Antenatal only	Early postnatal onset	Late postnatal onset	Persistent	Total
N	49%	11%	14%	5%	21%	359 (100%)
EPDS mean (se) 95% CI] total score perinatal time points						
12-22 w an	5.1 (0.4) [4.2, 5.9]	10.4 (1.3) [7.3, 13.6]	6.2 (0.5) [5.2, 7.2]	7.7 (1.0) [5.3, 10.2]	12.7 (1.1) [10.4, 15]	7.3 (0.3) [6.8, 7.9]
24-34 w an	4.4 (0.4) [3.6, 5.1]	9.7 (1.7) [5.7, 13.7]	6.1 (0.5) [5.1, 7.1]	7.2 (1.0) [4.8, 9.7]	13.1 (0.9) [11.2, 15.1]	7.3 (0.3) [6.7, 7.8]
36-42 w an	3.6 (0.4) [2.9, 4.4]	7.9 (1.3) [4.9, 11.0]	7.5 (0.6) [6.3, 8.7]	4.9 (1.2) [1.8, 8.0]	13.5 (1.0) [11.6, 15.5]	7.0 (0.3) [6.4, 7.5]
BIRTH						
1-4 w pn	4.9 (0.4) [4.1, 5.7]	5.6 (0.9) [3.5, 7.7]	13.3 (0.8) [11.8, 14.9]	6.8 (0.8) [4.7, 8.8]	13.3 (1.0) [11.2, 15.5]	8.0 (0.3) [7.4, 8.6]
6-13 w pn	3.3 (0.4) [4.1, 5.7]	3.9 (0.8) [2.1, 5.7]	9 (0.8) [7.4, 10.6]	6.0 (1.3) [2.7, 9.3]	12.4 (0.8) [10.7, 14]	6.4 (0.3) [5.9, 7]
14-23 w pn	3.4 (0.4) [2.6, 4.3]	6.1 (1) [3.8, 8.4]	7.7 (0.8) [6.1, 9.4]	11.6 (1.6) [7.7, 15.5]	12.5 (0.9) [10.6, 14.3]	6.4 (0.3) [5.8, 7]
24-35 w pn	2.6 (0.3) [2.0, 3.2]	3.6 (0.9) [1.5, 5.7]	7.0 (1.0) [4.8, 9.2]	11.5 (1.4) [8.0, 15.0]	10.8 (1.0) [8.7, 12.8]	5.5 (0.4) [4.8, 6.2]
36-49 w pn	2.7 (0.4) [1.8, 3.6]	4.4 (1.3) [1.0, 7.9]	6.8 (1.0) [4.7, 8.9]	10.4 (1.5) [6.4, 14.3]	10.8 (1.1) [8.6, 13]	5.6 (0.4) [4.8, 6.4]

Note. Data represent the mean scores for each perinatal depression trajectory group for each assessment time point, based on a sample N = 359 (provided at least one antenatal and one postnatal EPDS), with multiple imputation applied to account for missing data. Perinatal depression trajectories were categorized as follows: 1) Healthy: EPDS scores remained below the clinical cutoff during both the antenatal and postnatal assessments; 2) Antenatal-only depression: EPDS scores were at or above the cutoff during the antenatal assessments (12-22, 24-34, or 36-42 weeks), but below the cutoff postnatally; 3) Early postnatal-onset depression: EPDS scores were below the cutoff antenatally, but rose to or above the cutoff during the early postnatal assessment (1-4 and/or 6-13 weeks); 4) Late postnatal-onset depression: EPDS scores remained below the cutoff antenatally and during the early postnatal

assessments (1-13 weeks), but reached or exceeded the cutoff during later postnatal weeks (14-23 and/or 24-35 weeks); 5) Persistent depression: EPDS scores were at or above the cutoff during at least one time point in the antenatal, early postnatal, and/or late postnatal assessments.

Supplementary Table 3. Deficits of Emotion Regulation Scale-16 (DERS-16) mean total score (standard error) [95% confidence interval] at 16-25 weeks antenatal for the five distinct perinatal depression symptom trajectory groups.

	Perinatal depression symptom trajectory group (based on EPDS scores across perinatal time points)					Total
	Healthy	Antenatal only	Early postnatal onset	Late postnatal onset	Persistent	
DERS-16 mean (se) [95% CI] total score						
N	49%	11%	14%	5%	21%	359 (100%)
16-25 w an	25.5 (1.0) [23.5, 27.5]	31.0 (3.8) [23.1, 38.9]	32.3 (1.8) [28.6, 35.9]	37.5 (4.6) [26.0, 49.0]	46.1 (2.6) [40.7, 51.5]	32.1(0.7) [30.7, 33.4]

Note. Data represent the mean scores for each perinatal depression symptom trajectory group based on a sample of N = 359 (provided at least one antenatal and one postnatal EPDS), with multiple imputation applied to account for missing data. Perinatal depression symptom trajectories were categorized as follows: 1) Healthy: EPDS scores remained below the clinical cutoff during both the antenatal and postnatal assessments; 2) Antenatal-only depression symptoms: EPDS scores were at or above the cutoff during the antenatal assessments (12-22, 24-34, or 36-42 weeks), but below the cutoff postnatally; 3) Early postnatal-onset depression symptoms: EPDS scores were below the cutoff antenatally, but rose to or above the cutoff during the early postnatal assessment (1-4 and/or 6-13 weeks); 4) Late postnatal-onset depression symptoms: EPDS scores remained below the cutoff antenatally and during the early postnatal assessments (1-13 weeks), but reached or exceeded the cutoff during later postnatal weeks (14-23 and/or 24-35 weeks); 5) Persistent depression symptoms: EPDS scores were at or above the cutoff during at least one time point in the antenatal, early postnatal, and/or late postnatal assessments.

Supplementary Table 4. Pearson correlation coefficients between Deficits of Emotion Regulation Scale-16 (DERS-16) total score at 16-25 weeks antenatal and potential confounders included in multiple regression analyses (*primary analyses*).

Potential confounders	Correlation coefficients (95% CI) with DERS-16 at 16-25 weeks antenatal	Variance inflation factor (VIF)
Age	$r(621) = -.122 (-.198 \text{ to } -.044) *$	1.27
BMI	$r(614) = .057 (-.022 \text{ to } .135) ns$	1.09
University education	$r(621) = -.051 (-.129 \text{ to } .028) ns$	1.21
Parity	$r(604) = .007 (-.073 \text{ to } .086) ns$	1.55
Pregnancy loss	$r(608) = .006 (-.074 \text{ to } .085) ns$	1.31
Depression history	$r(621) = .272 (.198 \text{ to } .343) ***$	1.24
PMS	$r(615) = .161 (.084 \text{ to } .237) ***$	1.08
OC mood	$r(616) = .085 (.006 \text{ to } .163) *$	1.07
FOBS 13-42 w antenatal	$r(606) = .239 (.163 \text{ to } .313) ***$	1.12
RS-14 20-42 w antenatal	$r(548) = -.522 (-.581 \text{ to } -.459) ***$	1.83
SOC-13 18-42 w antenatal	$r(563) = -.416 (-.482 \text{ to } -.346) ***$	1.39
VPSQ 32-42 w antenatal	$r(418) = .467 (.389 \text{ to } .539) ***$	1.51
Delivery experience	$r(355) = -.158 (-.257 \text{ to } -.055) *$	1.13
Neonatal issues 0-2 w postnatal	$r(354) = .079 (-.025 \text{ to } .182) ns$	1.07
EPDS 12-22 w antenatal	$r(543) = .545 (.484 \text{ to } .602) ***$	1.71

$ns p \geq .135$, $*p < .050$, $***p \leq .001$

Note. VIFs were calculated based on the linear regression models used across the perinatal time points. All values remained below commonly accepted thresholds for multicollinearity (e.g., $VIF < 5.0$).

BMI: Body mass index; DERS-16: Deficits in Emotion Regulation Scale-16; EPDS: Edinburgh Postnatal Depression Scale; FOBS: Fear of Birth Scale; OC mood: mental health issues due to oral contraceptives; PMS: past treatment for premenstrual disorder; RS-14: Resilience Scale-14; SOC-13: Sense of Coherence-13; VPSQ: Vulnerable Personality Style Questionnaire.

Supplementary Table 5. Overview of potential confounders included in the primary regression analyses, including scale characteristics, assessment timing, and rationale for inclusion.

Construct assessed	Survey used	Reference	No. of items	Approx. completion time	Time point assessed	Rational for inclusion
Age	Single-item self-report	/	1	<1 min	Baseline (upon signing up for Mom2B)	Socioeconomic factor; associated with PeriND risk Wikman et al., 2019
Pre-pregnancy body-mass-index	Single-item self-report	/	1	<1 min	Baseline (upon signing up for Mom2B)	Factor associated with PeriND risk Andersson et al., 2021; Wikman et al., 2019
Highest education level	Single-item self-report (categorical)	/	1	<1 min	Baseline (upon signing up for Mom2B)	Socioeconomic factor; associated with PeriND risk Andersson et al., 2021; Wikman et al., 2019
History of pregnancy loss	Single-item self-report (categorical)	/	1	<1 min	Baseline (upon signing up for Mom2B)	Factor associated with PeriND risk Blackmore et al., 2011; Shen et al., 2024
Self-reported depression history	Single-item self-report (categorical)	/	1	<1 min	Baseline (upon signing up for Mom2B)	Factor associated with PeriND risk Andersson et al., 2021; Wikman et al., 2019
Past treatment for premenstrual disorder	Single-item self-report (categorical)	/	1	<1 min	Baseline (upon signing up for Mom2B)	Factor associated with PeriND risk Andersson et al., 2021; Wikman et al., 2019
Mental health issues due to oral contraceptives	Single-item self-report (categorical)	/	1	<1 min	Baseline (upon signing up for Mom2B)	Factor associated with PeriND risk Larsen et al., 2023
Fear of birth	Fear of Birth Scale (FOBS)	Hildingsson et al., 2018	2	1-2 min	13-42 weeks antenatal	Construct identified as predictive of PostND Andersson et al., 2021; Wikman et al., 2019
Resilience <i>Ability to recover from stress and adapt to adversity</i>	Resilience Scale-14 (RS-14)	Aiena et al., 2015; Wagnild & Young, 1992	14	5 min	20-42 weeks antenatal	Constructs identified as predictive of PostND Andersson et al., 2021; Wikman et al., 2019 and associated with ER Hajure et al., 2024; Pollock et al., 2016; Rufino et al., 2022
Sense of coherence <i>Perceiving life as comprehensible, manageable, and meaningful</i>	Sense of coherence-13 (SOC-13)	Antonovsky 1993; Eriksson & Lindström, 2005	13	3-5 min	18-42 weeks antenatal	
Vulnerable personality style <i>Personality dimensions linked to elevated risk for PostND</i>	Vulnerable Personality Style Questionnaire (VPSQ)	Boyce et al., 2001; Dennis & Boyce, 2004	9	2-4 min	32-42 weeks antenatal	

Delivery experience	Single-item self-report (scale from 0 = negative to 100 = positive)	/	1	<1 min	0-2 weeks postnatal	Factor associated with PeriND risk Andersson et al., 2021; Wikman et al., 2019
Neonatal issues	Single-item self-report (categorical)	/	1	<1 min	0-2 weeks postnatal	
Antenatal depressive symptoms	Edinburgh Postnatal Depression Scale (EPDS)	Cox et al., 1987; Rubertsson et al., 2011; Wickberg & Hwang, 1996	10	2-4 min	12-22 weeks antenatal	Constructs identified as predictive of PostND Andersson et al., 2021