**Table S1:** Characteristics of women entering the follow-up compared to women lost to follow-up.

	Particip	oants in 12 months fo	ollow-up		Lost to follow-up	
	Intervention $(n = 902)$	Control ( <i>n</i> = 881)	Total $(n = 1783)$	Intervention $(n = 101)$	<b>Control</b> ( <i>n</i> = 114)	Total (n = 215)
Maternal characteristics						
Pre-pregnancy age, years <sup>a</sup>	$30.4 \pm 4.2$	$30.6 \pm 4.5$	$30.5 \pm 4.4$	29.0 ± 4.6	$29.0 \pm 5.0$	$29.0 \pm 4.8$
Pre-pregnancy weight, kg	$68.6 \pm 13.1$	$68.0 \pm 13.5$	$68.3 \pm 13.3$	66.0 ± 11.5	$68.1 \pm 15.0$	$67.1 \pm 13.5$
First measured weight, kg	$70.1 \pm 13.2$	$68.9 \pm 13.8$	$69.5 \pm 13.5$	$67.4 \pm 11.6$	$69.1 \pm 15.0$	$68.3 \pm 13.5$
Pre-pregnancy BMI, kg/m <sup>2</sup>	$24.4 \pm 4.3$	$24.3 \pm 4.6$	$24.4 \pm 4.5$	$24.0 \pm 3.9$	$24.5 \pm 4.7$	$24.2 \pm 4.4$
Pre-pregnancy BMI category, n (%)						
BMI $18.5-24.9 \text{ kg/m}^2$	578/902 (64.1%)	577/881 (65.5%)	1155/1783 (64.8%)	67/101 (66.3%)	75/114 (65.8%)	142/215 (66.0%)
BMI 25.0–29.9 kg/m <sup>2</sup>	217/902 (24.1%)	194/881 (22.0%)	411/1783 (23.1%)	26/101 (25.7%)	24/114 (21.1%)	50/215 (23.3%)
BMI $30.0-40.0 \text{ kg/m}^2$	107/902 (11.9%)	110/881 (12.5%)	217/1783 (12.2%)	8/101 (7.9%)	15/114 (13.2%)	23/215 (10.7%)
GWG, kg	$14.0 \pm 5.2$	$14.0 \pm 5.2$	$14.0 \pm 5.2$	$13.4 \pm 5.5$	$13.1 \pm 5.7$	$13.2 \pm 5.6$
GDM, n (%)	89/887 (10.0%)	82/832 (9.9%)	171/1719 (9.9%)	9/97 (9.3%)	22/107 (20.6%)	31/204 (15.2%)
<b>Educational level</b>						
General secondary school	120/901 (13.3%)	140/880 (15.9%)	260/1781 (14.6%)	31/101 (30.7%)	24/112 (21.4%)	55/213 (25.8%)
Intermediate secondary school	392/901 (43.5%)	363/880 (41.3%)	755/1781 (42.4%)	43/101 (42.6%)	50/112 (44.6%)	93/213 (43.7%)
High school	389/901 (43.2%)	377/880 (42.8%)	766/19781 (43.0%)	27/101 (26.7%)	38/112 (33.9%)	65/213 (30.5%)
Country of birth, n (%)						
Germany	801/902 (88.8%)	798/880 (90.7%)	1599/1782 (89.7%)	88/101 (87.1%)	88/112 (78.6%)	176/213 (82.6%)
Others	101/902 (11.2%)	82/880 (9.3%)	183/1782 (10.3%)	13/101 (12.9%)	24/112 (21.4%)	37/213 (17.4%)
Primiparous, n (%)	568/902 (63.0%)	477/881 (54.1%)	1045/1783 (58.6%)	52/101 (51.5%)	52/114 (45.6%)	104/215 (48.4%)
Smoking in late pregnancy, n (%)	35/864 (4.1%)	37/845 (4.4%)	72/1709 (4.2%)	6/88 (6.8%)	13/93 (14.0%)	19/181 (10.5%)

Abbreviations: GDM: Gestational diabetes mellitus; GWG: Gestational weight gain.

<sup>&</sup>lt;sup>a</sup> mean ± SD (all such values)

**Table S2:** Sensitivity analyses on short-term and long-term PPWR.

	Intervention	Control	Effect size (95% CI)	p	Adjusted effect sized (95% CI)f	Adjusted p <sup>f</sup>
Short-term PPWR-T1 <sub>pp</sub>						•
PPWR, kg, model 1 <sup>b</sup>	$4.0 \pm 4.8^{\rm a}$	$4.3 \pm 4.8$	-0.12 (-0.94, 0.71)	0.783	-0.16 (-0.95, 0.63)	0.694
PPWR, kg, model 2c	$4.0 \pm 4.8$	$4.3 \pm 4.8$	-0.12 (-0.94, 0.71)	0.782	-0.18 (-0.97, 0.61)	0.662
Long-term PPWR-T2 <sub>pp</sub>						
PPWR, kg, model 1d	$-0.2 \pm 4.8$	$0.6 \pm 5.2$	-0.63 (-1.44, 0.19)	0.132	-0.69 (-1.57, 0.19)	0.123
PPWR, kg, model 2e	$-0.2 \pm 4.8$	$0.6 \pm 5.2$	-0.61 (-1.44, 0.21)	0.146	-0.68 (-1.57, 0.21)	0.133

Abbreviations: GEE: generalized estimating equations;  $T1_{pp:}$  6-8 weeks pp;  $T2_{pp:}$  12th month pp; p: p value; pp: postpartum; PPWR: pp weight retention; V0: Visit 0 and time of recruitment.

- <sup>a</sup> Mean ± SD (all such values).
- Included are all women with available weight data for  $T1_{pp}$ . Self-reported pre-pregnancy weight was used if the measured weight at V0 was missing (IV: n = 973; C: n = 934).
- <sup>c</sup> Included are all women with available measured weight data for T1<sub>PP</sub> (IV: *n* = 964; C: *n* = 917).
- d Excluded are pregnant women and women lost to follow-up. Self-reported pre-pregnancy weight was used if the measured weight at V0 was missing (IV: *n* = 843; C: *n* = 832).
- e Excluded are pregnant women, women lost to follow-up and women with missing measured weight data at V0 (IV: n = 839; C: n = 817).
- <sup>f</sup> Linear regression models fit using GEEs adjusted for pre-pregnancy BMI, pre-pregnancy age, parity, gestational age at inclusion, time of the pp weight assessment (T1<sub>pp</sub> or T2<sub>pp</sub>).

**Table S3:** Factors influencing the decision to breastfeed (any breastfeeding).

	Any Breastfeeding		No breastfeeding					
	п	%	n	%	Effect size (95% CI)	p	Adjusted effect size (95% CI)	Adjusted p
Pre-pregnancy BMI category <sup>a</sup>						0.002		0.002
BMI 18.5–24.9 kg/m <sup>2</sup>	924/1066	86.7	142/1066	13.3	Reference		Reference	
BMI 25.0–29.9 kg/m <sup>2</sup>	313/372	84.1	59/372	15.9	0.82 (0.59, 1.13)	0.225	0.83 (0.59, 1.15)	0.259
BMI 30.0–40.0 kg/m <sup>2</sup>	149/194	76.8	45/194	23.2	0.51 (0.35, 0.74)	< 0.001	0.51 (0.35, 0.74)	< 0.001
Age categories (pre-pregnancy) <sup>b</sup>						0.337		0.259
18–25 years	158/194	81.4	36/194	18.6	Reference		Reference	
26–35 years	1051/1229	85.5	178/1229	14.5	1.35 (0.91, 2.00)	0.141	1.40 (0.93, 2.09)	0.105
36–43 years	176/208	84.6	32/208	15.4	1.25 (0.74, 2.11)	0.397	1.42 (0.82, 2.45)	0.210
Educational level <sup>c</sup>						< 0.001		< 0.001
General secondary school	154/215	71.6	61/215	28.4	Reference		Reference	
Intermediate secondary school	567/693	81.8	126/693	18.2	1.78 (1.25, 2.54)	0.001	1.71 (1.19, 2.45)	0.004
High school	664/723	91.8	59/723	8.2	4.46 (2.99, 6.64)	< 0.001	4.08 (2.70, 6.15)	< 0.001
Excessive GWG according to the IOM <sup>c, d</sup>						0.273		0.690
Non-excessive GWG	720/832	86.5	112/832	13.5	Reference		Reference	
Excessive GWG	586/693	84.6	107/693	15.4	0.85 (0.64, 1.14)	0.273	0.94 (0.69, 1.28)	0.690
Antenatal well-being <sup>c</sup>						0.007		0.018
Moderate to high	882/1015	86.9	133/1015	13.1	Reference		Reference	
Low	459/561	81.8	102/561	18.2	0.68 (0.51, 0.90)	0.007	0.71 (0.53, 0.94)	0.018
PPD <sup>c</sup>						< 0.001		< 0.001
No	1208/1401	86.2	193/1401	13.8	Reference		Reference	
Yes	97/133	72.9	36/133	27.1	0.43 (0.29, 0.65)	< 0.001	0.45 (0.29, 0.68)	< 0.001

Abbreviations: GWG: Gestational weight gain; IOM: Institute of Medicine; p: p value; pp: postpartum; PPD: pp depression; T2<sub>pp</sub>: 12<sup>th</sup> month pp.

<sup>&</sup>lt;sup>a</sup> Binary logistic regression model adjusted for pre-pregnancy age, parity, group assignment,T2<sub>pp</sub>.

<sup>&</sup>lt;sup>b</sup> Binary logistic regression model adjusted for pre-pregnancy BMI, parity, group assignment, T2<sub>pp.</sub>

<sup>&</sup>lt;sup>c</sup> Binary logistic regression model adjusted for pre-pregnancy age, pre-pregnancy BMI, parity, group assignment, T2<sub>pp</sub>.

 $<sup>^{\</sup>rm d}$  Excessive GWG as defined by the IOM [24].