**Table S1.** Characteristics of the studies that did not met the inclusion criteria of the meta-analysis1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Author | Time of postpartum  Weight measurement | Sample size | Was BF associated  with weight retention | Was BF intensity examined | Was BF duration examined | Was weight  measured | Reasons for exclusion |
| M.C.M. da Silva et al37 | 6 mo  12 mo  24 mo | 315 | Y | Y | Y | N | No control group |
| Baker JL et al19 | 6 mo | 36030 | Y | Y | Y | Y | No control group |
| Murnane PM et al38 | 4 mo  16 mo | 958 | Y | N | Y | Y | No control group and  Not healthy women |
| Cohen SS et al39 | 1- ≥ 12 mo | 31184 | Y | N | Y | N | Cross-sectional study |
| Janney CA et al40 | 0.5 mo  2 mo  4 mo  6 mo;12 mo | 110 | Y | Y | Y | Y | Have no data of weight change about BF and  FF |
| Abusabha R et al41 | 1-24 mo | 14 | Y | N | Y | Y | No control group |
| Gigante DP et al42 | 1- ≥ 12 mo | 312 | Y | Y | Y | Y | The data have no standard deviation |
| Quandt SA et al43 | 2 mo; 5 mo  6 mo | 46 | Y | Y | Y | Y | No control group and  No data |

**Table S1. (Continued)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Author | Time of postpartum  Weight measurement | Sample size | Was BF associated  with weight retention | Was BF intensity examined | Was BF duration examined | Was weight  measured | Reasons for exclusion |
| Ota E et al44 | 1 mo  4 mo | 49 | Y | N | Y | Y | Have no data |
| Mok E et al20 | 1- 3 mo | 1432 | Y | Y | Y | Y | case-control study  And have no data |
| Nomm sen-Rivers  LA et al45 | 0 mo  3 mo  7 mo | 431 | Y | Y | Y | Y | No control group and  No data |
| Mulder PJ et al22 | 0 day  1 day  2 day | 53 | Y | Y | Y | Y | No control group |
| Walker LO et al28 | 3-6 mo | 207 | Y | N | Y | Y | The data have no standard deviation |
|  |  |  |  |  |  |  |  |
| Martin B et al47 | 6mo | 1788 | Y | Y | Y | N | Self-reported weight |
| Truls Ø et al48 | 12mo | 315 | Y | Y | Y | N | Self-reported weight |

1 Y, yes; N, no.

**Table S2. Postpartum weight change 1**

|  |  |  |  |
| --- | --- | --- | --- |
| Author and postpartum time | Postpartum weight change depend on lactation practice | | |
| EBF(kg) | MF(kg) | FF(kg) |
| Nancy FB et al46 |  |  |  |
| 3-6mo | 0.9±1.1[32] | 0.3±1.1[32] | 0.2±1.1[32] |
| CT Ly et al49 |  |  |  |
| 4-5mo | 0.41±1.48[55] |  | 0.14±1.50[62] |
| 5-6mo | 0.91±1.67[53] |  | 0.25±1.71[63] |
| 6-7mo | 0.45±1.26[55] |  | 0.60±1.37[60] |
| 7-9mo | xx0.41±1.52[53] |  | 0.60±1.24[60] |
| 9-12mo | 0.37±0.60[51] |  | 0.40±0.71[61] |
| Katrina MK et al50 |  |  |  |
| 3-6mo | 1.5±0.5[14430] | 0.18±0.13[14430] | 0.2±1.01[14430] |
| Irene EH et al51 |  |  |  |
| 24 weeks | 1.7±0.99[17] | 1.90±1.18[7] | 0.39±1.38[7] |
| Okechukwu AA et al52 |  |  |  |
| 1-3mo | 0.85±0.68[322] |  | 0.39±0.71[205] |
| 3-6mo | 3.13±0.8[322] |  | 0.96±0.8[205] |
| Kathryn GD et al53 |  |  |  |
| 1-3mo | 1.2±2.1[65] |  | 1.0±2.3[67] |
| 3-6mo | 1.2±2.2[83] |  | 0.3±1.9[55] |
| 6-9mo | 0.6±1.5[68] |  | 0.9±1.8[70] |
| 9-12mo | 0.3±1.5[57] |  | 0.0±1.6[42] |
| Marie MB et al15 |  |  |  |
| 1-3mo | 6.75±0.53[21] | 8.14±0.68[20] | 8.79±0.68[15] |
| 3-6mo | 1.29±0.64[21] | 0.82±0.65[20] | 0.16±0.64[15] |
| Kathryn GD2 et al54 |  |  |  |
| 4-6mo(study 1) | 0.7±1.5[50] |  | 0. 1±1.7[91] |
| 4-6mo(study 2) | 0.3±1.6[56] |  | 0.1±1.7[60] |
| Gilberto K et al55 |  |  |  |
| 2mo | 4.2±4.5[226] | 4.2±4.3[108] | 2.3±5.1[25] |
| 6mo | 4.6±1.4[23] | 3.1±2.4[169] | 3.6±5.8[101] |
| Karen SW et al56 |  |  |  |
| 2wk-3mo | 1.4±0.4[42] |  | 1.1±0.4[40] |
| 3-6mo | 1.6±0.4[42] |  | 1.2±0.4[40] |
| 6-9mo | 0.3±0.3[40] |  | 0.6±0.3[42] |
| 9-12mo | 0.2±0.3[40] |  | 0.6±0.3[42] |
| M. Dujmovic et al61 |  |  |  |
| 3-6mo | 5.15±5.25[83] |  | 0.18±4.50[76] |

1 All values are mean ± SD, *n*, in brackets. EBF, exclusively breastfeeding; MF, mixed breastfeeding; FF, formula feeding.

2 The objects of Study 1 were primiparous mothers, the objects of Study 2 were mothers of LBW infants (LBW, low birth weight).

**Table S3** Stratification of the studies by their postpartum time frame.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Author | Time postpartum | | | |
| 1-≤3mo(n=1028) | 3-≤6mo(n=32092) | 6-≤9mo(n=448) | 9-≤12mo(n=923) |
| Nancy FB et al46 |  | 3-6mo |  |  |
| CT Ly et al49 |  | 4-6mo | 6-9mo | 9-12mo |
| Katrina MK et al50 |  | 3-6mo |  |  |
| Irene EH et al51 |  | 24weeks |  |  |
| Okechukwu AA et al52 | 1-3mo | 3-6mo |  |  |
| Kathryn GD et al53 | 1-3mo | 3-6mo | 6-9mo | 9-12mo |
| Marie MB et al13 | 1-3mo | 3-6mo |  |  |
| Kathryn GD et al54 |  | 4-6mo |  |  |
| Gilberto K et al55 | 2mo | 6mo |  |  |
| Karen SW et al56 | 2wk-6mo | 3-6mo | 6-9mo | 9-12mo |
| M. Dujmovic et al61 |  | 3-6mo |  |  |

**Table S4.** Quality of included studies 1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Author | Data collection2 | | Inclusion and excluded criteria reported3 | Clear definition for exposure and outcome4 | | Follow-up rata5 | Total  Quality  scores |
| Pre-pregnancy  weight | Postpartum  weight | BF | PPWR |
| Nancy FB | 1 | 1 | 1 | 1 | 1 | 0 | 5 |
| CT Ly | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| Katrina MK | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| Irene EH | 1 | 1 | 1 | 0 | 1 | 1 | 5 |
| Okechukwu AA | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| Kathryn GD | 1 | 1 | 1 | 0 | 1 | 0 | 4 |
| Marie MB | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| Kathryn GD | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| Gilberto K | 1 | 1 | 1 | 1 | 1 | 1 | 5 |
| Karen SW | 1 | 1 | 1 | 0 | 1 | 1 | 5 |
| M. Dujmovic | 1 | 1 | 1 | 1 | 1 | 1 | 6 |

1 BF, breastfeeding; PPWR, postpartum weight retention.

2 one point for actual measurement, zero for self-report.

3 if criteria was reported that one point was assigned.

4 if definition or outcome was reported that one point was awarded.

5 A study with a follow-up rate ≥ 75% was assigned one point.