

**GRADE tables for review question: What interventions in the postnatal period are effective at promoting emotional attachment?**

**Table 5: Clinical evidence profile for comparison of usual care plus the Parental Skills and Attachment in Early Childhood program versus usual care in women with prenatal depression scale score of >11 or ≤11**

Quality assessment							No of participants		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Parental Skills and Attachment in Early Childhood program	Usual care	Relative (95% CI)	Absolute		
<b>Social withdrawal behaviour assessed using the Alarm Distress Baby Scale (ADBB). Intervention up to infant's second birthday and follow-up at 18 months baby age</b>												
<b>In women with prenatal depression scale<sup>1</sup> score &gt;11 (Better indicated by lower values)</b>												
1 (Guedeney 2013)	randomised trials	very serious <sup>2</sup>	no serious inconsistency	no serious indirectness	no serious imprecision	none	38	27	-	MD 0 higher (2.1 lower to 2.1 higher)	LOW	IMPORTANT
<b>In women with prenatal depression score ≤11 (Better indicated by lower values)</b>												
1 (Guedeney 2013)	randomised trials	very serious <sup>2</sup>	no serious inconsistency	no serious indirectness	serious <sup>3</sup>	none	52	35	-	MD 2.1 lower (3.81 to 0.39 lower)	VERY LOW	IMPORTANT

CI: confidence interval; MD: mean difference; MID: minimally important difference

<sup>1</sup> Edinburgh Postnatal Depression Scale (EPDS) was used to assess prenatal depression. Total scores range from 0 to 30; higher scores indicate higher levels of depressive symptoms. A cut-off score of >11 was chosen by the authors because it has a good sensitivity (0.80) and specificity (0.80).

2 The quality of the evidence was downgraded by 2 levels because of high performance bias as investigators, psychologists performing the intervention and participants were blinded to assignment before but not after the randomisation; also high attrition bias as data at 18 month follow-up was available for n=90 (40.5%) in the intervention group and for n=62 (28%) in the comparison group; reasons for attrition: no evaluation visit during the first year, refusal after inclusion, missing data, excluded (baby deceased or medical interruption of pregnancy, included wrongly, lost consent forms, moved away; mothers with a greater number of risk factors for later infant mental health problems were significantly more likely to dropout of the program, with comparable dropout rates in the intervention and the comparison groups.

3 The quality the evidence was downgraded by 1 level due to serious imprecision as 95% CI crosses 1 MID for continuous outcomes (+/- 2.4).

**Table 6: Clinical evidence profile for comparison of community doula intervention versus routine medical and social services**

Quality assessment							No of participants		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Community doula	Routine medical and social services	Relative (95% CI)	Absolute		
<b>Mother-child interaction assessed using the Parent-Child Observation Guide (PCOG). Intervention up to 3 months post-partum and follow-up at 12 months baby age</b>												
<b>Mother variables - Mother sensitive responsiveness (Better indicated by higher values)</b>												
1 (Hans 2013)	randomised trials	serious <sup>1</sup>	no serious inconsistency	no serious indirectness	no serious imprecision	none	107	112	-	MD 0.1 higher (0.3 lower to 0.5 higher)	MODERATE	CRITICAL
<b>Mother variables - Mother encouragement (Better indicated by higher values)</b>												
1 (Hans 2013)	randomised trials	serious <sup>1</sup>	no serious inconsistency	no serious indirectness	no serious imprecision	none	107	112	-	MD 0.31 higher (0.18 lower to 0.8 higher)	MODERATE	CRITICAL
<b>Mother variables - Mother prompt responsiveness to upset child<sup>2</sup> (Better indicated by higher values)</b>												

1 (Hans 2013)	randomised trials	serious <sup>1</sup>	no serious inconsistency	no serious indirectness	serious <sup>3</sup>	none	14	14	-	MD 0.28 higher (0.09 lower to 0.65 higher)	LOW	CRITICAL
<b>Child variables - Child positive involvement with mother (Better indicated by higher values)</b>												
1 (Hans 2013)	randomised trials	serious <sup>1</sup>	no serious inconsistency	no serious indirectness	no serious imprecision	none	107	112	-	MD 0.07 lower (0.58 lower to 0.44 higher)	LOW	CRITICAL
<b>Child variables - Child displayed no uncomfortably long periods of distress (Better indicated by higher values)</b>												
1 (Hans 2013)	randomised trials	serious <sup>1</sup>	no serious inconsistency	no serious indirectness	no serious imprecision	none	107	112	-	MD 0.02 higher (0.03 lower to 0.07 higher)	MODERATE	CRITICAL

CI: confidence interval; MD: mean difference; MID: minimally important difference

1 The quality of the evidence was downgraded by 1 level because of high attrition bias: data at 12 month follow-up was available for n=107 (86%) in the intervention group and for n=112 (90%) in the comparison group; attrition was related to the inability to locate mothers, some declined to participate in follow-up interviews, few babies die due to sudden infant death syndrome, and some mothers lost custody of their children because of child endangerment; sample retention was not statistically different between the 2 trial groups.

2 Only parents whose children cried were coded on this scale.

3 The quality the evidence was downgraded by 1 level due to serious imprecision as 95% CI crosses 2 MIDs for continuous outcomes (+/- 0.25).

**Table 7: Clinical evidence profile for comparison of a long-term nurse home visiting program versus standard practice**

Quality assessment							No of participants		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Long-term nurse home visiting program	Standard practice	Relative (95% CI)	Absolute		

**Mother-child interaction assessed using the National Institute for Child Health and Development (NICHD) scales of parent-child interaction. Intervention up to baby's second birthday and follow-up at 18 months baby age**

**Sensitive stimulating parenting<sup>1</sup>**

1 (Kemp 2011)	randomised trials	very serious <sup>2</sup>	no serious inconsistency	no serious indirectness	serious <sup>3</sup>	none	60	50	-	MD 0.59 lower (1.6 lower to 0.42 higher)	VERY LOW	CRITICAL
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**Detached flat parenting<sup>1</sup>**

1 (Kemp 2011)	randomised trials	very serious <sup>2</sup>	no serious inconsistency	no serious indirectness	serious <sup>2</sup>	none	60	50	-	MD 0.32 higher (0.25 lower to 0.89 higher)	VERY LOW	CRITICAL
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**Child engagement<sup>1</sup>**

1 (Kemp 2011)	randomised trials	very serious <sup>2</sup>	no serious inconsistency	no serious indirectness	serious <sup>5</sup>	none	60	50	-	MD 0.25 higher (0.25 lower to 0.75 higher)	VERY LOW	CRITICAL
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CI: confidence interval; MD: mean difference; MID: minimally important difference

1 Direction of the scale is not clear as no information provided.

2 The quality of the evidence was downgraded by 2 levels because of high selection bias as no information provided how women were randomised to intervention and comparison groups; high attrition bias as data at 18 month follow-up was available for n=60 (54.1%) in the intervention group and for n=50 (51.5%) in the comparison group; no reasons for attrition given. There was unclear risk of performance bias as no information provided whether personnel were aware of the group allocation and unclear risk of detection bias as no information provided whether researchers assessing outcomes were aware of the group allocation. Also there was other bias as no information was provided what scale was used to measure sensitive stimulating parenting, detached flat parenting and child engagement, so the direction of the scale is not clear. No statistical comparison was made between mothers who dropped out of the study and those who remained.

3 The quality of the evidence was downgraded by 1 level due to serious imprecision as 95% CI crosses 1 MID for continuous outcomes (+/- 1.4).

4 The quality of the evidence was downgraded by 1 level due to serious imprecision as 95% CI crosses 1 MID for continuous outcomes (+/- 0.7).

5 The quality of the evidence was downgraded by 1 level due to serious imprecision as 95% CI crosses 1 MID for continuous outcomes (+/- 0.6).

**Table 8: Clinical evidence profile for comparison of a paraprofessional-delivered, home-visiting (Family Spirit) intervention versus breastfeeding/nutrition education program**

Quality assessment							No of participants		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Family Spirit, home visting intervention	Breastfeeding/nutrition education program	Relative (95% CI)	Absolute		
<b>Social emotional problems and competencies of the baby assessed using the Infant Toddler Social Emotional Assessment (ITSEA). Intervention up to 6 months post-partum and follow-up at 12 months infant age</b>												
<b>Externalising domain (includes activity/impulsivity, aggression/defiance, peer aggression) (Better indicated by lower values)</b>												
1 (Walkup 2009)	randomised trials	very serious <sup>1</sup>	no serious inconsistency	serious <sup>2</sup>	serious <sup>3</sup>	none	35	30	-	MD 0.18 lower (0.32 to 0.04 lower)	VERY LOW	IMPORTANT
<b>Internalising domain (includes depression/withdraw, general anxiety, separation distress, inhibition to novelty) (Better indicated by lower values)</b>												
1 (Walkup 2009)	randomised trials	very serious <sup>1</sup>	no serious inconsistency	serious <sup>2</sup>	serious <sup>4</sup>	none	35	30	-	MD 0.07 lower (0.17 lower to 0.03 higher)	VERY LOW	IMPORTANT
<b>Dysregulation domain (includes sleep, negative emotionality, eating, sensory sensitivity) (Better indicated by lower values)</b>												
1 (Walkup 2009)	randomised trials	very serious <sup>1</sup>	no serious inconsistency	serious <sup>2</sup>	serious <sup>5</sup>	none	35	30	-	MD 0.06 lower (0.19 lower to 0.07 higher)	VERY LOW	IMPORTANT
<b>Competence domain (includes compliance, attention, imitation/play, mastery motivation, empathy, prosocial peer relations) (Better indicated by higher values)</b>												

1 (Walkup 2009)	randomised trials	very serious <sup>1</sup>	no serious inconsistency	serious <sup>2</sup>	serious <sup>6</sup>	none	35	30	-	MD 0.01 lower (0.18 lower to 0.16 higher)	VERY LOW	IMPORTANT
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CI: confidence interval; MD: mean difference; MID: minimally important difference

1 The quality of the evidence was downgraded by 2 levels because of selection bias as no information was provided about how women were randomised to intervention and comparison groups; only stated that the website <http://randomization.com> was used); high performance bias as participants and interventionist were aware of the group allocation; high attrition bias as data at 12 month follow-up was available for n=35 (43%) in the intervention group and for n=30 (35%) in the comparison group; no reasons for attrition given, only stated that "high attrition rates were likely related to participant factors such as Family Spirit intervention time burden and transient living status post-delivery"; reported rates of attrition were similar in both groups at 12 month follow-up and that participants lost to follow-up at 12 months were not different in baseline demographic characteristics or outcome variables from those still in the study); unclear detection bias as no information provided whether researchers assessing outcomes were aware of the group allocation.

2 ITSEA outcome is a proxy outcome for social behaviour of the baby

3 The quality of the evidence was downgraded by 1 level due to serious imprecision as 95% CI crosses 1 MID for continuous outcomes (+/- 0.14)

4 The quality of the evidence was downgraded by 1 level due to serious imprecision as 95% CI crosses 1 MID for continuous outcomes (+/- 0.12)

5 The quality of the evidence was downgraded by 1 level due to serious imprecision as 95% CI crosses 1 MID for continuous outcomes (+/- 0.13)

6 The quality of the evidence was downgraded by 1 level due to serious imprecision as 95% CI crosses 1 MID for continuous outcomes (+/- 0.17)