

Meta-analysis of interventions aiming to improve maternal-child attachment security

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Introduction

- Early secure maternal-child attachment relationships lay the foundation for children's healthy social & mental development.
- Interventions targeting maternal sensitivity and maternal reflective function (the capacity to think about your own and others' emotions and thoughts) during the first year of infant life may be the key to promoting secure attachment.
- Earlier reviews included a variety of interventions not directly focused on promoting maternal sensitivity or reflective function, such as those focused on social support or mental health interventions. Other reviews included observational designs.

Purpose

- To determine the effectiveness of direct interventions focused on either maternal sensitivity or reflective function, conducted during the infant's first year of life, on maternal-child attachment security.
- Secondary goals: (1) the effectiveness of direct interventions on a range of outcomes including maternal-child interaction, infant behaviour and development, and maternal mental health, (2) characteristics of successful interventions, and (3) updating information from the previous reviews.

Materials & methods

- We conducted a systematic review and meta-analysis to examine the effectiveness of interventions aimed at promoting maternal sensitivity and reflective function on maternal-child attachment security, as measured by the gold standard Strange Situation and Q-set.

3120 Citations Identified

3120 (99.7%) Trials Excluded:

- 2753 (88.2%) not randomized or quasi randomized controlled trial.
- 156 (5.0%) included children older than 3 years old
- 14 (0.4%) included mothers of children with neurodevelopment delays or disability
- 165 (5.3%) did not aim to improve maternal-child attachment or did not have an intervention that focused on maternal sensitivity, reflection or internal working model implemented in the infants first year of life
- 23 (0.7%) did not document maternal-child attachment outcome.
- 10 (0.3%) were duplicate trials

10 Included Trials

3 (30%) Trials Excluded from Meta-Analysis:

- 2 (66.6%) used Attachment Q-set as outcome
- 1 (33.3%) provided insufficient numeric data to include in meta-analysis of Ainsworth Strange Situation Procedure

7 Trials Meta-Analysed using Ainsworth Strange Situation Procedure as Outcome

Results & Conclusions

Results:

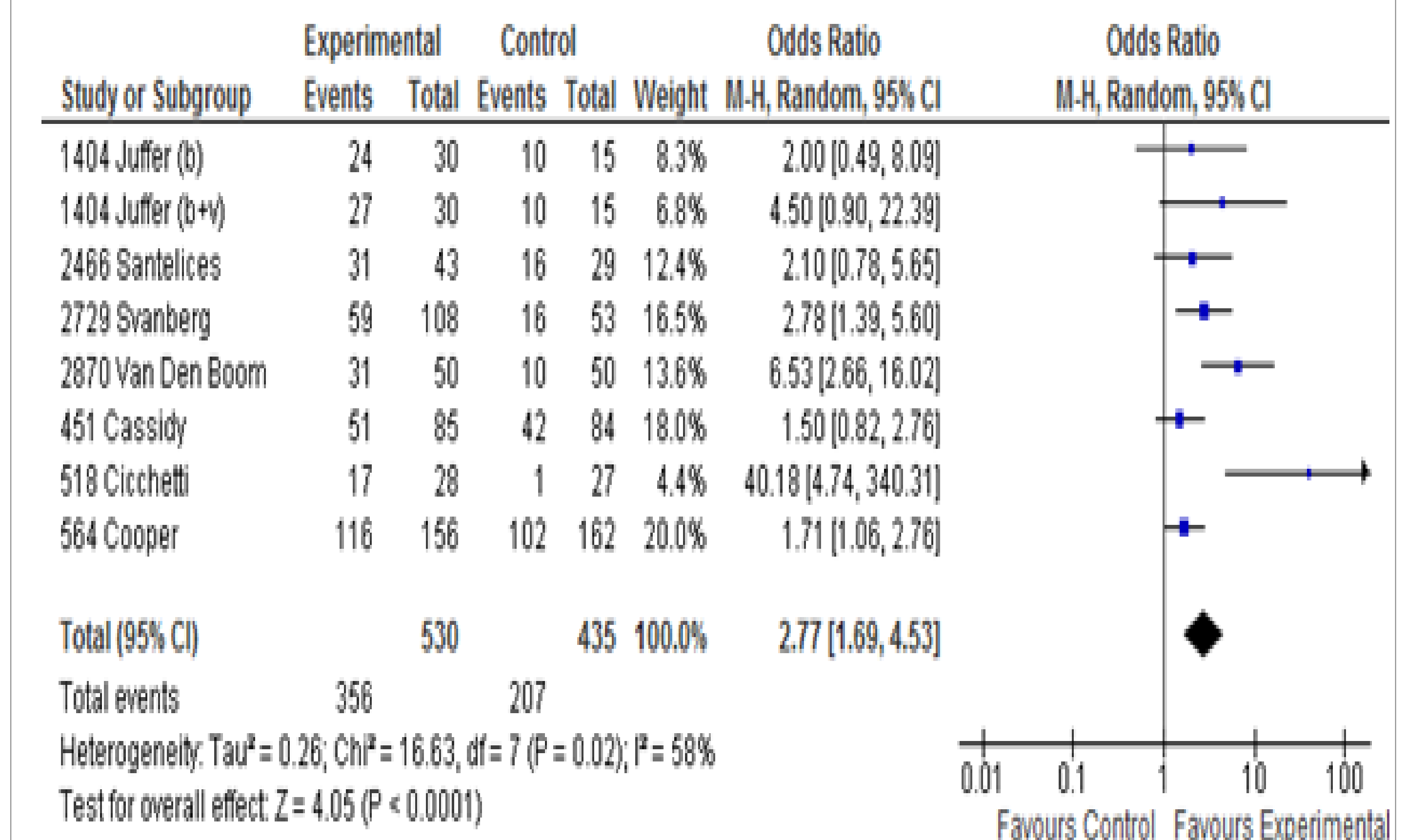
- Overall, sensitivity and reflective functioning interventions improved the quality of maternal-infant interactions with gains observed for both mother and infant. Improvement in child behaviour and modest gains in social-emotional competence were observed.
- Interventions had little or no effect on maternal depression, stress or parenting efficacy.

Conclusions:

- Interventions aimed at improving maternal sensitivity alone or in combination with maternal reflection, implemented in the infant's first year of life, are effective in promoting secure maternal-child attachments.
- Intervention aimed at highest risk families produced the most beneficial effects.



Study & Focus	Quality (PEDro) /10	Summary of main treatment effect of interventions from included studies
		Effect on maternal-infant attachment + statistically significant treatment effect on maternal-infant attachment; - no change in maternal-infant attachment;
Cassidy 2011 (Sensitivity & Reflective Function)	6	- No main treatment effect of intervention that included Circle of Security, home visiting and video-feedback on maternal-child attachment compared to psych-educational sessions and reading material
Cicchetti 2006 (Sensitivity & Reflective Function)	6	+ Infant-parent psychotherapy that included supportive, non-directive and non-didactic developmental guidance significantly improved maternal-child attachment compared to standard community service for maltreating families
Cooper 2009 (Sensitivity)	6	+ Home visits delivered by community residents who encouraged sensitive and responsive interactions between mother and child significantly improved maternal-child attachment compared to standard community practices
Juffer 1997 (Sensitivity)	6	+ Provision of a book consisting of written information on sensitive parenting combined with video-feedback significantly improved maternal-child attachment compared to standard practice of the provision of booklet on adoption issues.
		- Provision of a book consisting of written information on sensitive parenting alone had no impact on maternal-child attachment compared to standard practice of the provision of booklet on adoption issues
*Juffer 2005 (Sensitivity)	7	+ Provision of video feedback and the personal book improved maternal-child attachment, compared to control
		- Provision of a book consisting of written information on sensitive parenting alone had no impact on maternal-child attachment, compared to control
Kalinauskiee 2009 (Sensitivity)	8	- Home visits that included video-feedback and a baby diary had no impact on maternal-child attachment compared to phone contact to ask mothers' about their infant development
Santelices 2010 (Sensitivity & Reflective Function)	5	- The Secure Attachment Promotion Program that included group workshops had no impact on maternal-child attachment compared to an educational lecture during pregnancy about attachment and the affective life of a newborn.
Svanberg 2010 (Sensitivity)	3	+ The Sunderland Infant Program consisting of home visits, video-feedback and psychotherapy significantly improved maternal-child attachment compared to standard health practice.
*van Doesum 2008 (Sensitivity & Reflective Function)	5	+ Home visits that included video-feedback, discussion, modeling, cognitive restructuring, practical pedagogical support and baby massage significantly improved maternal-child attachment compared to parenting support by phone
Van den Boom 1995 (Sensitivity)	7	+ Skill-based training program focusing on responsive parenting significant improved maternal-child attachment compared to no treatment



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