Disorganized infant attachment and preventive interventions: a review and meta-analysis
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CRD summary
This review concluded that disorganised infant attachment could be affected by sensitivity-focused interventions, but interventions specifically designed to prevent disorganised attachment were needed. These conclusions reflect the evidence presented, but they may not be reliable in view of the limitations in the review process and the unknown quality of the included studies.

Authors' objectives
To investigate the effectiveness of interventions to prevent disorganised infant attachment, and any association between this and intervention or study characteristics.

Searching
PsycINFO, Dissertation Abstracts, and MEDLINE were searched. Search terms were reported, but search dates were not. Reference lists of identified articles or books were checked, and experts were asked to supply further references. No language restrictions were reported.

Study selection
Studies were included if they investigated an intervention for infants with a mean age under 54 months. Case studies and unpublished studies were excluded. Studies had to assess disorganised attachment, using Main and Solomon's coding system, or atypical attachment, using Crittenden's system.

The included studies were of healthy middle-class families, or at-risk or clinical populations, such as families with a depressed mother, families who had adopted a child from abroad, low-birth-weight infants, or families of low socio-economic status. The number of intervention sessions varied from three to 47. In most studies, the intervention started within the first year of the infant's life; in two studies, it started during pregnancy, and in another two studies, it started when children were over a year old. The interventions focused on sensitivity, support, representation, or a combination of these.

The number of authors, who selected the studies, was not reported.

Assessment of study quality
Sample size, randomisation and attrition rates were assessed for each included study. The number of authors involved was not reported.

Data extraction
The size of the effect of the intervention on disorganised attachment was extracted from each study. If necessary, study authors were contacted for further details.

The number of authors who extracted the data was not reported.

Methods of synthesis
Both a meta-analysis and a narrative synthesis were presented. Fixed-effect and random-effects models were used in the meta-analysis, depending on heterogeneity, which was assessed using the Cochran's Q. Cohen's d and 90% confidence interval were reported. Subgroup analyses were conducted if four or more studies were available.

Results of the review
Fifteen intervention studies (reported in 10 papers) were included in this review. Samples ranged from 15 to 135 participants, with a total of 842. Most studies had a randomised design, with less than 20% participant attrition.

Overall, there was no statistically significant effect of the interventions on disorganised attachment ($d = 0.05$, 90% CI -0.07 to 0.17; 15 studies). The authors acknowledged that the studies were heterogeneous, and they explored this in
subgroup analyses.

Interventions starting after infants were six months old were effective ($d = 0.23$, 90% CI 0.05 to 0.40; nine studies). Interventions delivered by a professional were effective ($d = 0.17$, 90% CI 0.03 to 0.37; 12 studies), and those focusing on sensitivity alone or with another concept were effective ($d = 0.26$, 90% CI 0.07 to 0.46; five studies). Interventions were effective for families of middle or high socioeconomic status ($d = 0.17$, 90% CI 0.00 to 0.34; nine studies), and in studies where the percentage of infants with disorganised attachment in the control group was 21 or higher ($d = 0.31$, 90% CI 0.13 to 0.49; seven studies).

No other sample characteristics produced significant effect sizes. The presence or absence of video delivery of the intervention, number of sessions, and whether the intervention was home based or not did not have a significant impact on effect sizes. Further subgroup results and a narrative synthesis of studies were presented.

Authors’ conclusions
Disorganised infant attachment could be affected by sensitivity-focused interventions, but interventions specifically designed to prevent disorganised attachment were needed.

CRD commentary
The search strategy was adequate. No search dates were provided, but the most recent publication date was 2005 and this review was published in 2005. As unpublished studies were excluded, this review had a risk of publication bias. A limited assessment of quality was conducted, focusing on randomisation and attrition. The findings were incorporated into the meta-analysis, but important aspects of quality were not investigated, and the quality of the evidence remains unknown. There was a risk of reviewer error and bias throughout the review, as the number of reviewers involved at each stage was not provided. The effect size calculations and narrative synthesis seem to have been appropriate, given the variation in the evidence. Suitable subgroup analyses were carried out to explore this variation.

The authors’ conclusions were based on the findings of the meta-analysis and reflect the presented evidence, but there were limitations in the review process and the quality of the included studies was unclear, so they may not be reliable.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors recommended studies to investigate whether disorganised infant attachment could be prevented by interventions to change certain kinds of parental behaviour. They highlighted the need for interventions designed specifically to prevent attachment disorganisation.

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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.