

# Best Evidence Summaries of Topics in Mental Healthcare

**BEST in MH** *clinical question-answering service*

## Question

“In adults with dependent children, how effective are group-based parent training programmes, for improving parental psychosocial health?”

## Clarification of question using PICO structure

*Patients:* Adults with dependent children  
*Intervention:* Group-based parent training programmes  
*Comparator:* Any comparator  
*Outcome:* Psychosocial health

## Clinical and research implications

Overall, there was a good amount of evidence, including one good-quality systematic review (48 trials) and a further seven trials (most good or moderate quality) supporting the use of group parenting programmes. Most of the evidence found significant short-term improvements (up to six months) in parental stress, anxiety, depression or an overall measure of psychopathology. Five out of the seven trials were in a general setting involving parents of pre-school children (two also included older children) and two were in a specific setting (a disadvantaged area, and children with diabetes). Most of the group based parenting programmes were delivered face-to-face and a web-based programme was only evaluated by one trial.

As most of the trial participants were women, more research is needed into the effects of parenting programmes on fathers. Most of the trials only assessed short-term follow-up in a single setting so more multi-centre randomised trials, comparing different types or deliveries of programmes, with longer follow-up periods are needed.

### What does the evidence say?

#### *of included studies/reviews (number of participants)*

One systematic review (Barlow: 48 studies (4937 participants)) and seven randomised controlled trials (Coatsworth, Farris, Li, McGilloway, Porzig-Drummond, Saßmann, and Simkiss) were included. The total number of participants in the trials was 1305 (range 37 families to 432 families) but some trials included only one caregiver and others included families.

#### *Main Findings*

The systematic review found that group-based parenting programmes aimed at helping parents to manage children's behaviour resulted in short-term improvements (up to 6 months) in parental depression, anxiety, stress, anger, guilt and confidence. Only the benefits for stress and confidence were maintained after 6 months.

Of the trials, three were aimed parents of toddlers or pre-school children. Farris evaluated face-to-face or web-based delivery of the same parenting programme compared to a parenting booklet, in US mothers of 2 to 3 year olds. Both interventions showed reductions in depression and a Global severity of Psychopathology score after 3 months. Simkiss also evaluated families with children aged 2 to 4 years in the UK, comparing a family nurturing programme to a waiting list control. After 9 months there were no significant differences between the groups for any of the parental outcomes. The third trial was of a parenting programme aimed at Chinese parents in Hong Kong with young children about to start primary school (Li). This also did not find any significant between group differences in parental stress.

Two trials included parents of older children. Coatsworth compared two strengthening family programmes (including one with mindfulness training) to a home study group in US families of 6<sup>th</sup> and 7<sup>th</sup> grade school children. For the mothers, the only outcome showing a beneficial effect of the programme was mindfulness. However, for the fathers the programme improved anger management, satisfaction in parenting, acceptance for self and youth, and the emotional awareness of youth. Porzig-Drummond compared two different formats of the same cognitive behavioural programme to a waiting list control group in Australian parents of children between 2 and 12 years.

Immediately after the intervention both groups showed reductions in stress, anxiety and depression but these improvements were not maintained after 3 months or 2 years.

The two other trials were in specific, rather than general settings. McGilloway compared a parent training programme for children with behavioural problems to a waiting list control in parents from disadvantaged community settings in Ireland, who were referred to local services for problem behaviour. Most of the participants were mothers with around 60% being socioeconomically disadvantaged and at risk of poverty. After 6 months parental stress and depression were reduced with the programme compared to the control. The other trial was conducted in Germany and evaluated a group parenting programme for parents of children with type 1 diabetes, aimed at strengthening their general and diabetes-specific education. There were no significant differences between the programme and a waiting list control after 3 months. Parental psychological distress (anxiety and depression) reduced over time for the intervention group, but a similar reduction was also seen in the control group for anxiety and stress.

#### ***Authors Conclusions***

The findings of the systematic review supported the use of parenting programmes for improving the short-term psychosocial wellbeing of parents, but more research is needed into their effects on fathers, and to compare different types of programmes.

For the three trials of parents of pre-school children, two made positive conclusions about the effects of parenting programmes but one found no evidence of their clinical or cost-effectiveness. Farris concluded that both levels of the parent training program (face-to-face and web delivery) were associated with increases in the well-being of mothers of toddlers. Li concluded that the parental training programme was effective in reducing harsh parenting and enhancing the parent-child relationship, which demonstrates the importance of parenting in promoting a smooth transition from kindergarten to primary school. However, Simkiss concluded that there was no evidence of the clinical or cost-effectiveness of the family nurturing programme in a universal setting and further, well-implemented clinical trials are needed.

The two trials of parents of older children also made positive conclusions about the benefits of parenting programmes. Coatsworth concluded that very brief mindfulness training, delivered within a family-focussed preventive intervention, may be a promising method for improving the quality of parent-youth relationships, in order to build a protective family environment against the development of youth problem behaviours. Porzig-Drummond concluded that parenting programmes were effective for reducing dysfunctional parenting and child problem behaviours, and that emotion coaching was also effective in reducing an emotion-dismissing parenting style.

The trial in a disadvantaged setting concluded that the parent training programme was effective in reducing problem behaviour amongst children and for improving parental well-being in families living in disadvantaged areas (McGilloway). The final trial of a diabetes support group concluded that it gave preliminary evidence that a parenting programme for parents of young children with type 1 diabetes can improve parenting behaviour and the psychological status of the parents. As it was a pilot study a long-term multicentre clinical trial is needed.

### ***Reliability of conclusions/Strength of evidence***

Overall there was a good amount of evidence to support the use of parenting programmes for improving parental psychosocial health. One good quality Cochrane Review contained 48 trials and concluded that parenting programmes had positive short-term benefits.

Of the seven further trials found for this question, three were at low risk of bias, three were moderate and one was at a high risk of bias. The most common problem with the trials was the lack of participant and researcher blinding, but given the nature of the parenting programmes under evaluation in many cases it would not have been possible to blind the participants. The only trial rated as low risk of bias for all quality items was by Porzig-Drummond where they stated that the participants did not know which group they were in and all participants attended the same number of sessions.

Another problem with many of the trials was missing data, as some participants did not attend all the parenting group sessions or complete the follow-up assessments. Some trials did state that they performed intention to treat analysis (including all randomised participants in their original groups) but most did not report these results in full. The only trial that did not find any significant benefit of a parenting programme (Simkiss) had 53% of the participants either not attending any sessions or dropping out within the first three, in addition 10% of the control group attended one of the parenting group sessions. This lack of compliance during the trial may partially explain their non-significant conclusions.

### **What do guidelines say?**

No guidelines from the National Institute for Health and Care Excellence (NICE) or the Scottish Intercollegiate Guidelines Network (SIGN) guidelines comment upon the effectiveness of group-based parent training programmes for improving parental psychosocial health.

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**Date searches conducted:** 22/01/2015  
**Date answer completed:** 07/05/2015

### **References**

#### **Systematic Reviews**

Barlow J, Smailagic N, Huband N, Roloff V, Bennett C. Group-based parent training programmes for improving parental psychosocial health. Cochrane Database of Systematic Reviews 2014, Issue 5. Art. No.: CD002020. DOI: 10.1002/14651858.CD002020.pub4.

#### **Primary Studies**

Coatsworth, J. D., Duncan, L. G., Nix, R. L., Greenberg, M. T., Gayles, J. G., Bamberger, K. T., Berrena, E., & Demi, M. A. (2015). Integrating mindfulness with parent training: Effects of the mindfulness-enhanced strengthening families program. *Developmental psychology, 51*(1), 26.

Farris, J. R., Bert, S. S. C., Nicholson, J. S., Glass, K., & Borkowski, J. G. (2013). Effective intervention programming: Improving maternal adjustment through parent education. *Administration and Policy in Mental Health and Mental Health Services Research*, 40(3), 211-223.

Li, H. C., Chan, S., Mak, Y. W. & Lam, T. H. (2013). Effectiveness of a parental training programme in enhancing the parent-child relationship and reducing harsh parenting practices and parental stress in preparing children for their transition to primary school: a randomised controlled trial. *BMC Public Health*, 13, 1079-1091.

McGilloway, S., Ni Mhaille, G., Bywater, T., Furlong, M., Leckey, Y., Kelly, P., Comiskey, C., & Donnelly, M. (2012). A Parenting Intervention for Childhood Behavioral Problems: A Randomized Controlled Trial in Disadvantaged Community-Based Settings. *Journal of Consulting and Clinical Psychology*, 80(1), 116-127.

Porzig-Drummond, R., Stevenson, R. J., & Stevenson, C. (2014). The 1-2-3 Magic parenting program and its effect on child problem behaviors and dysfunctional parenting: A randomized controlled trial. *Behaviour research and therapy*, 58, 52-64.

Saßmann, H., de Hair, M., Danne, T., & Lange, K. (2012). Reducing stress and supporting positive relations in families of young children with type 1 diabetes: A randomized controlled study for evaluating the effects of the DELFIN parenting program. *BMC Pediatrics*, 12:152.

Simkiss, D. E., Snooks, H. A., Stallard, N., Kimani, P. K., Sewell, B., Fitzsimmons, D., Anthony, R., Winstanley, S., Wilson, L., Phillips, C. J., Stewart-Brown, S. (2013). Effectiveness and cost effectiveness of a universal parenting skills programme in deprived communities: multicentre randomised controlled trial. *BMJ Open* 2013;3:e002851. doi:10.1136/bmjopen-2013-002851

## Results

Author (year)	Search date	Inclusion criteria	Number of included studies	Summary of results	Risk of bias
Barlow et al. (2014)	December 2011	<p><b>Participants:</b> Adult parents of children with or without behavioural problems, who have parental responsibility for their children. Parents with clinical psychiatric problems were excluded.</p> <p><b>Intervention:</b> Standardised or manualised group-based parenting programmes aimed at helping parents to manage children's behaviour and improve family functioning and relationships. Included interventions were: behavioural parenting programmes; cognitive-behavioural parenting programmes; and multi-modal programmes.</p> <p><b>Comparator:</b> Controls, including no treatment, treatment as usual, waiting-list controls, or a placebo intervention.</p> <p><b>Outcome:</b></p> <p>Primary outcome: Depressive symptoms, anxiety symptoms, stress, self-esteem, anger, aggression, guilt.</p> <p>Secondary outcomes: Confidence, partner satisfaction, adverse effects (e.g. increased tension between partners).</p> <p><b>Study design:</b> Systematic review of randomised</p>	48 (n = 4937; range from 22 to 733)	<p>Interventions were given for between one and six weeks (brief); eight to 14 weeks (standard); and 16 weeks or more (long). Outcomes were reported by the parents and measured at post-intervention, short-term (two to six months); and long-term follow-up (more than six months).</p> <p>There were significant short-term improvements in parental depression following group-based parenting programmes (effect size (ES) -0.17, 95% CI -0.28 to -0.07). Significant improvements were also found for anxiety (ES -0.22, 95% CI -0.43 to -0.01) and stress (ES -0.29, 95% CI -0.42 to -0.15). Similarly sized short-term improvements in anger, guilt, confidence and satisfaction with the partner relationship were also observed.</p> <p>However, only the improvements in</p>	<p>Low</p> <p>This was a well-conducted Cochrane Review. Inclusion and exclusion criteria were clearly stated. It was an update of a previous review and full details of the search strategy, including methods for unpublished literature, were reported.</p> <p>All steps of the review were conducted by two independent reviewers. The risk</p>

		and quasi-randomised controlled trials (RCTs).		stress and confidence were still significant after six months.	of bias assessment and synthesis methods seemed to be appropriate.
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### ***Randomised controlled trials***

<b>Author (year)</b>	<b>Inclusion criteria</b>	<b>Number of participants</b>	<b>Summary of results</b>	<b>Risk of bias</b>
Coatsworth et al. (2015)	<p><i>Participants:</i> Parents of children in 6<sup>th</sup> or 7<sup>th</sup> grade in rural and urban areas of central Pennsylvania, US.</p> <p><i>Intervention:</i> (1) Mindfulness-Enhanced Strengthening Families Program (MFSP) involving 7 weekly 2 hour group sessions. This was adapted from the SFP 10-14 (see below) and included mindfulness activities.</p> <p>(2) Strengthening Families Programme For Parents and Youth 10-14 (SFP 10-14). Designed to prevent the onset of adolescent substance abuse and problem behaviour. Delivered once a week for 7 weeks.</p>	432 families	<p>Assessments were conducted with mothers, fathers and youths at baseline, post-intervention and 1 year follow-up. Results were reported separately for mothers and fathers and for the young people's reports of their mothers and fathers.</p> <p>Of the participating families, 69% were European, 15% African American, 8% Latino and 4% Asian. 66% of families included both parents and 90% of fathers participated; 54% of the young people were female with an average age of 12.1 years.</p> <p><i>Mothers:</i> at post-intervention there were no statistically significant differences between the MFSP and control groups for any of the measures of parent well-being</p>	<p>High.</p> <p>No details were given about the methods of randomisation and allocation concealment. Due to the nature of the interventions it was not possible to blind the participants or the outcome assessors (outcomes were self-reported).</p>

	<p><i>Comparator:</i> Home study control condition.</p> <p><i>Outcome:</i> Interpersonal mindfulness in parenting; the parent–youth relationship; youth behaviour management; and parent well-being.</p>		<p>(satisfaction, daily hassles and anger management), or any of the interpersonal mindfulness outcomes. At the 1 year follow-up the only mindfulness outcome showing a significant difference was the emotional awareness of youth (<math>p &lt; 0.05</math>).</p> <p><i>Fathers:</i> at post-intervention there was a positive result in favour of MFSP for satisfaction/efficacy but it was not statistically significant (<math>p &lt; 0.10</math>) and a significant improvement in the emotional awareness of youth (<math>p &lt; 0.05</math>). Results were improved at the 1 year follow-up with there being highly significant benefits for MFSP in the emotional awareness of youth (<math>p &lt; 0.001</math>), compassion/acceptance for self (<math>p &lt; 0.01</math>), and significant benefits for compassion/acceptance for youth (<math>p &lt; 0.05</math>), satisfaction in parenting (<math>p &lt; 0.05</math>) and anger management (<math>p &lt; 0.05</math>).</p>	<p>It was unclear how many were included in the analysis or if there were any losses to follow-up.</p> <p>All outcomes were reported.</p>
Farris et al. (2013)	<p><i>Participants:</i> Mothers of toddlers (aged 2-3 years) in Midwestern US.</p> <p><i>Intervention:</i> (1) Face-to-face group parenting programme, involving 12 weekly group meetings lasting one hour, as well as receiving 'Adventures in Parenting' 62-page informational booklet on basic principles of parenting.</p> <p>(2) Web-based online sessions matching the content of the group</p>	133 mothers	<p>Assessments were made at baseline and at 3 months (immediately after the intervention period). From the original 133 mothers, 103 completed the 3 month assessment but only 99 were included in the analysis (those who attended at least one session and completed the 3 month assessment).</p> <p>After 3 months, there was a statistically significant difference between the 3 groups for depression (after adjusting for age, education and baseline score), with there being significant reductions in depression score</p>	<p>Moderate.</p> <p>At the initial assessment each mother received their booklet and was randomised using a random digit generator, ensuring allocation concealment.</p>

	<p>programme sessions, as well receiving the 'Adventures in Parenting' booklet, for 12 weekly sessions.</p> <p><i>Comparator:</i> 'Adventures in Parenting' booklet only.</p> <p><i>Outcome:</i> Maternal socio-emotional adjustment as measured by the Symptoms Checklist-90-R (SCL-90-R; Derogatis, 1994); and children's behavioural problems as measured by the Brief Infant Toddler Social and Emotional Assessment (BITSEA; Briggs-Gowan et al., 2004).</p>		<p>for the face-to-face and web-based groups compared to the booklet group.</p> <p>Similarly there was a statistically significant difference in the Global Severity of Psychopathology score. As for depression, the scores were lower for the face-to-face and web-based groups compared to the booklet group.</p> <p>For anxiety there were no statistically significant differences between the 3 groups.</p>	<p>No blinding, it was not possible to blind intervention or outcomes as they were self-reported.</p> <p>Analyses not by intention to treat (ITT) but says ITT analyses were conducted and led to the same conclusions.</p> <p>All outcomes were reported.</p>
Li et al. (2013)	<p><i>Participants:</i> Chinese parents from a Hong Kong housing estate with children from kindergarten to primary school age. Parents with identified learning difficulties, or parents of children identified as such, were excluded.</p> <p><i>Intervention:</i> Parental group training programme initiated approximately one month prior to start of academic year in primary school, lasting 4 weeks.</p> <p><i>Comparator:</i> Intervention leaflet</p>	142 parents	<p>Assessments were made at baseline, 6 weeks and 3 months after the intervention.</p> <p>The overall response rate was 93.4% but attendance rates for the intervention were low, with 42.9% of participants missing at least one session. However, all participants were included in the intention to treat analyses. Most of the participants were women (87%) in the 30 to 39 years age group, and most had received some form of secondary education (81%).</p> <p>The analysis of parental stress showed that in both groups stress levels significantly reduced following the</p>	<p>Low.</p> <p>Randomisation used sealed opaque envelopes.</p> <p>It was not possible to blind participants.</p> <p>Stated to be single blind, the person collecting the data was unaware of the group assignment.</p>

	<p>provided to parents on helping children to adapt to the new primary school life (published by Education Bureau).</p> <p><i>Outcome:</i> Self-reported parent-child relationship; perceived parental aggression as measured by the perceived parental aggression subscale of the Parental Acceptance Rejection Questionnaire (Rohner, 1986); parental stress as measured by the Parental Stress Scale (PSS; Barry &amp; Jones, 1995).</p>		<p>transition to primary school, but that there was no significant difference between the 2 intervention groups. Positive results were seen for harsh parenting practices and the parent-child relationship, both of which showed significant improvements with the parental training programme.</p>	<p>Intention to treat analysis including all parents by using last observation carried forward.</p> <p>All outcomes were reported.</p> <p>All outcomes were reported,</p>
McGilloway et al. (2012)	<p><i>Participants:</i> Parents in disadvantaged, community settings in Ireland, with children (aged 32 – 88 months) referred to local organisations/health services for problem behaviour.</p> <p>Families were included if the primary caregiver rated their child above the clinical cut-off on either the Intensity subscale (Intensity score <math>\geq 127</math>) or the Problem subscale (Problem score <math>\geq 11</math>) of the Eyberg Child Behaviour Inventory (ECBI; Eyberg &amp; Pincus, 1999).</p> <p><i>Intervention:</i> The Incredible Years BASIC parent training program (IYBP) for children with behavioural</p>	149 parents	<p>Assessments were made at baseline and 6 months (3 months after the intervention). The control group were offered the IYBP after completing the 6 month assessment.</p> <p>Most of the participants were mothers (143 mothers, 6 fathers), 38% were lone parents, 66% were at risk of poverty, and 66% were socioeconomically disadvantaged. The mean age of the children was 57 months and 62% were boys.</p> <p>Parental stress scores were significantly reduced after 6 months with the parenting intervention compared to the control (mean difference 12.2, 95% CI 5.8 to 18.5; <math>p &lt; 0.001</math>). Parental depression (using a BDI cut-off of 19) was also significantly reduced (mean difference 2.7,</p>	<p>Low.</p> <p>Randomisation and allocation concealment was appropriate (computerised random number sequence by an independent statistician, allocation given out by an administrator).</p> <p>Participants were not blinded but</p>

	<p>problems. 14 sessions delivered over 12 weeks.</p> <p><i>Comparator:</i> Waiting-list control group.</p> <p><i>Outcome:</i> Child behaviour as measured by the ECBI (Eyberg &amp; Pincus, 1999), the Strengths and Difficulties Questionnaire (Goodman, 1997), the Conners Abbreviated Parent Rating Scale (Conners, 1994), and the Social Competence Scale (Corrigan, 2002); parental well-being as measured by The Parenting Stress Index – Short Form (Abidin, 1995) and the Beck Depression Inventory (Beck et al., 1961); and observational measurements of 21 parent behaviour categories and 7 child behaviour categories were conducted using the Dyadic Parent–Child Interactive Coding System—Revised (Robinson &amp; Eyberg, 1981).</p>		<p>95% CI 0.2 to 5.2; <math>p = 0.035</math>). Results were similar for both the intention to treat and per protocol analyses (excluding those lost to follow-up but including those with poor attendance).</p>	<p>researchers were, and parents were instructed not to reveal their group.</p> <p>ITT analysis included all parents by using last observation carried forward.</p> <p>All outcomes were reported.</p>
Porzig-Drummond et al. (2013)	<p><i>Participants:</i> Parents of children aged 2-12 years in Australia, with or without behavioural or conduct problems.</p> <p><i>Intervention:</i> (1) ‘1-2-3-Magic &amp; Emotion Coaching’ programme. A brief cognitive-behavioural programme delivered to large groups of caregivers,</p>	126 parents randomised, but 115 attended the baseline information session	<p>Assessments were made at the baseline information session, post-intervention (1 months after completing the programme), and at 3 month and 2 year follow-ups. Only the primary caregiver from each family was included in the analysis. Out of the 126 randomised participants, 92 (73%) were included in the analysis.</p>	<p>Low.</p> <p>Randomisation and allocation concealment seemed appropriate (sequence generated</p>

	<p>given in 3 sessions (2) DVD group involving watching '1-2-3-Magic Effective Discipline for Children' Programme, for 3 sessions.</p> <p><i>Comparator:</i> Waiting-list control group.</p> <p><i>Outcome:</i> Child behaviour as measured by the ECBI (Eyberg &amp; Pincus, 1999); parental stress and dysfunctional parenting as measured by the PSI-SF (Abidin, 1995); parental adjustment as measured by the DASS-21 (Lovibond &amp; Lovibond, 1995); emotional-related parenting style as measured by the Emotion-Related Parenting Styles Self-Test (ERPS-ST; Hakim-Larson, 2006); and client satisfaction as measured by the Therapy Attitude Inventory (Breston et al., 1999).</p>		<p>The average participant age was 39 years (range 29 to 57 years), 83.7% were female, 88% had a tertiary education, 72.9% were employed and the household income was above the Australian national average. Most participants (91.3%) lived in a two-caregiver household with two children. At baseline 51% of participants had parenting stress levels above the clinical cut-off score on the PSI-SF, 44.6% had stress levels, 27.2% had depression levels and 25% had anxiety levels outside the functional range on the DASS-21.</p> <p>At post-intervention both intervention groups showed statistically significant reductions in total stress and parental distress on the PSI-SF and depression, anxiety and stress on the DASS-21, compared to the control group. However, these improvements were not maintained after 3 months or after 2 years, when the differences between the two intervention groups were no longer statistically significant (the control group was not followed up at these timepoints).</p>	<p>in Excel, allocated sequentially in order of contact).</p> <p>Parents did not know which group they were in and all groups attended the same number of sessions. As outcomes were self-reported then the outcome assessment was also blinded.</p> <p>An ITT analysis was also reported and differences in results were discussed.</p> <p>All outcomes were reported.</p>
Saßmann et al. (2012)	<p><i>Participants:</i> Parents of children with type 1 diabetes (2–10 years) who were not involved in any other psychological intervention. Conducted in Hannover, Germany.</p> <p><i>Intervention:</i> The DELFIN parenting programme. A structured group</p>	37 families (73 parents)	<p>Assessments were made at baseline and 3 months after the 6 week intervention period. The DELFIN group were also followed up after 12 months.</p> <p>The mean age of the mothers was 40 years and for the fathers it was 43 years; the mean age of the diabetic child was 6 years with a mean duration of diabetes of</p>	<p>High</p> <p>Randomisation method was appropriate (simple randomisation with a 1:1 ratio) but there</p>

	<p>intervention for parents to strengthen their general and diabetes specific education. Groups of up to 7 met for 2 hours weekly for 5 weeks, followed by individual telephone contact.</p> <p><i>Comparator:</i> Waiting list control group.</p> <p><i>Outcome:</i> Parenting skills as measured by The Parenting Scale (Arnold et al., 1993), and the Questions to Education Behaviour form (Miller, 2001; Heinrichs et al., 2006); parents' psychological burden as measured by the Depression-Anxiety-Stress-Scale (DASS, Lovibond &amp; Lovibond, 1995); children's behavioural difficulties as measured by the parents' version of the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1999; Woerner et al., 2004); and quality of metabolic control.</p>		<p>2.6 years. The DELFIN and control groups were well-balanced at baseline with the exception of the father's education level, with those in the DEFLIN group having a higher education level.</p> <p>Parents' psychological distress (DASS anxiety, depression and the total score) significantly reduced over time for the DEFLIN group, but the control group also showed a significant reduction for anxiety, stress and the total score. There were no significant differences between the 2 groups.</p>	<p>were no details of any allocation concealment.</p> <p>Participants and outcome assessors were not blinded.</p> <p>6 families (16 parents) did not complete the post-intervention assessment and there was no mention of ITT analysis.</p> <p>All outcomes were reported.</p>
Simkiss et al. (2013)	<p><i>Participants:</i> Parents in South Wales, with children aged between 2 and 4 years living in the catchment area of 'Flying Start' early years centres who had not previously attended a Family Links Nurturing Programme.</p> <p><i>Intervention:</i> The Family Links Nurturing Programme (FLNP). A</p>	286 families	<p>Assessments were made at baseline, 3 and 9 months. Of those randomised to the FLNP group, 34% of families did not attend any sessions and 19% stopped in the first 3 sessions. Ten percent of the control families also attended a FLNP session before the end of the trial.</p> <p>286 parents and 295 children were included, 97% of the parents were female, 33% had a partner and 78% were</p>	<p>Randomisation used minimisation and was performed by a Clinical Trials Unit, ensuring that allocation concealment was maintained.</p>

<p>structured manualised course of 10 weekly 2 hr sessions for 6 to 10 parents.</p> <p><i>Comparator:</i> Waiting list control group, offered usual practice including advice and support.</p> <p><i>Outcome:</i> Negative and supportive parenting; child behaviour as measured by the Parent Account of Child Symptoms (PrePACS; Taylor et al., 1986); positive and negative interactions; child well-being as measured by the PedsQL: parent report (Varni, 1998); parental well-being as measured by the Warwick-Edinburgh Mental Well-being Scale (WEMWBS; Tennant, 2006), Parenting Stress Index (Abdin, 1996), and the SF-12 (SF-36 User Manual).</p>		<p>in employment.</p> <p>After 9 months there were no statistically significant differences between the FLNP and control groups for any of the parental outcomes (SF-12, Parenting Stress Index, PedQL and the WEMWBS score). Only one of these outcome measures was included in the sensitivity analysis of all families, SF-12 which again did not show any significant difference between the 2 groups.</p>	<p>Participants and intervention co-ordinators were not blinded. However, the researchers who coded the interviews and data analysts were blinded to the group allocation.</p> <p>Analyses were by complete case not ITT, 46 families were excluded. Sensitivity analyses included all families but this was not done for all outcomes. All outcomes were reported.</p>
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## Risk of Bias

### *Systematic reviews*

Author (year)	RISK OF BIAS				
	Inclusion criteria	Searches	Review process	Quality assessment	Synthesis
Barlow et al. (2014)	😊	😊	😊	😊	😊

### *Randomised controlled trials*

Study	RISK OF BIAS					
	Random allocation	Allocation concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data	Selective Reporting
Coatsworth et al. (2015)	?	?	☹	☹	?	😊
Farris et al. (2013)	😊	😊	☹	☹	😊	😊
Li et al. (2013)	😊	😊	☹	😊	😊	😊
McGilloway et al. (2012)	😊	😊	☹	😊	😊	😊
Porzig-Drummond et al. (2013)	😊	😊	😊	😊	😊	😊
Saßmann et al. (2012)	😊	?	☹	☹	☹	😊
Simkiss et al. (2013)	😊	😊	☹	😊	☹	😊

😊 Low Risk

☹ High Risk

? Unclear Risk

## Search Details

Source	Search Strategy	Number of hits	Relevant evidence identified
<b>SRs and Guidelines</b>			
NICE	Parenting	113	0
<b>Primary studies</b>			
CENTRAL	#1 parent*-program* or parent*-training or parent*-education or parent*-promotion 1372 # parent next program* or parent* next training or parent* next education or parent* next promotion 1222 #3 or #1 or #2 [Limit to: Publication Year 2012-2015]; 233 results.	233	0
PsycINFO	1. PsycINFO; (parent* AND promotion OR parent* AND training OR parent* AND education OR parent* AND program* OR parent*-promotion OR parent*-training OR parent*-education OR parent*-program*).ti,ab; 31252 results. 2. PsycINFO; CLINICAL TRIALS/[Limit to: Publication Year 1860-2014]; 8256 results. 3. PsycINFO; random*.ti,ab [Limit to: Publication Year 1860-2014]; 136970 results. 4. PsycINFO; (doubl* adj3 blind*).ti,ab [Limit to: Publication Year 1860-2014]; 18909 results. 5. PsycINFO; (singl* adj3 blind*).ti,ab [Limit to: Publication Year 1860-2014]; 1739 results. 6. PsycINFO; EXPERIMENTAL DESIGN/[Limit to: Publication Year 1860-2014]; 9432 results. 7. PsycINFO; controlled.ti,ab [Limit to: Publication Year 1860-2014]; 84853 results. 8. PsycINFO; (clinical adj3 study).ti,ab [Limit to: Publication Year 1860-2014]; 8286 results. 9. PsycINFO; trial.ti,ab [Limit to: Publication Year 1860-2014]; 72071 results. 10. PsycINFO; "treatment outcome clinical trial".md [Limit to: Publication Year 1860-2014]; 28691 results. 11. PsycINFO; 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 [Limit to: Publication Year 1860-2014]; 259880 results. 12. PsycINFO; 1 AND 11 [Limit to: Publication Year 1860-2014]; 3426 results. 13. PsycINFO; 12 [Limit to: Publication Year 2012-2015]; 878 results.	878	1
Embase	4. EMBASE; ((parent\$-program\$ OR parent\$-training OR parent\$-education OR parent\$-promotion)).ti,ab [Limit to: Publication Year 2012-2015]; 1568 results. 5. EMBASE; ((parent\$ program\$ OR parent\$ training OR parent\$ education OR parent\$ promotion)).ti,ab [Limit to: Publication Year 2012-2015]; 608 results. 6. EMBASE; 4 OR 5 [Limit to: Publication Year 2012-2015]; 2132 results.	285	6

	7. EMBASE; CLINICAL TRIAL/; 837391 results. 8. EMBASE; RANDOMIZED CONTROLLED TRIAL/; 356075 results. 9. EMBASE; RANDOMIZATION/; 64185 results. 10. EMBASE; SINGLE BLIND PROCEDURE/; 19250 results. 11. EMBASE; DOUBLE BLIND PROCEDURE/; 116908 results. 12. EMBASE; CROSSOVER PROCEDURE/; 41027 results. 13. EMBASE; "Randomized controlled trial\$".ti,ab; 107148 results. 14. EMBASE; rct.ti,ab; 15502 results. 15. EMBASE; "Random allocation".ti,ab; 1355 results. 16. EMBASE; "Randomly allocated".ti,ab; 21256 results. 17. EMBASE; ((allocated adj2 random)).ti,ab; 720 results. 18. EMBASE; "Single blind\$".ti,ab; 15025 results. 19. EMBASE; "Double blind\$".ti,ab; 145845 results. 20. EMBASE; (treble ADJ blind\$).ti,ab; 0 results. 21. EMBASE; (triple ADJ blind\$).ti,ab; 410 results. 22. EMBASE; Placebo\$.ti,ab; 206020 results. 23. EMBASE; PROSPECTIVE STUDY/; 270436 results. 24. EMBASE; 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 47 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20 OR 21 OR 22 OR 23; 1407163 results. 25. EMBASE; "case report".ti,ab; 270970 results. 26. EMBASE; ABSTRACT REPORT/; 71432 results. 27. EMBASE; LETTER/; 839280 results. 28. EMBASE; 60 OR 25 OR 26 OR 27; 1205188 results. 29. EMBASE; 24 not 28; 1368726 results. 30. EMBASE; 6 AND 29 [Limit to: Publication Year 2012-2015]; 285 results.		
Medline	4. MEDLINE; (parent\$-program\$ OR parent\$-training OR parent\$-education OR parent\$-promotion).ti,ab; 4695 results. 5. MEDLINE; (parent\$ AND program\$ OR parent\$ AND training OR parent\$ AND education OR parent\$ AND promotion).ti,ab; 2113 results. 6. MEDLINE; 4 OR 5; 6704 results. 7. MEDLINE; RANDOMIZED CONTROLLED TRIALS AS TOPIC/; 94675 results. 8. MEDLINE; RANDOMIZED CONTROLLED TRIAL/; 381906 results.	209	0

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| 9. MEDLINE; RANDOM ALLOCATION/; 81648 results.<br>10. MEDLINE; DOUBLE-BLIND METHOD/; 126837 results.<br>11. MEDLINE; SINGLE-BLIND METHOD/; 19669 results.<br>12. MEDLINE; CLINICAL TRIAL/; 488224 results.<br>13. MEDLINE; "clinical trial, phase i".pt; 14422 results.<br>14. MEDLINE; "clinical trial, phase ii".pt; 23287 results.<br>15. MEDLINE; "clinical trial, phase iii".pt; 9304 results.<br>16. MEDLINE; "clinical trial, phase iv".pt; 973 results.<br>17. MEDLINE; "controlled clinical trial".pt; 88467 results.<br>18. MEDLINE; "randomized controlled trial".pt; 381906 results.<br>19. MEDLINE; "clinical trial".pt; 488224 results.<br>20. MEDLINE; exp CLINICAL TRIALS AS TOPIC/; 282845 results.<br>21. MEDLINE; (single\$ ADJ blind\$).ti,ab; 11913 results.<br>22. MEDLINE; (doubl\$ ADJ blind\$).ti,ab; 117897 results.<br>23. MEDLINE; (treb\$ ADJ blind\$).ti,ab; 0 results.<br>24. MEDLINE; (trip\$ ADJ blind\$).ti,ab; 364 results.<br>25. MEDLINE; (single\$ ADJ mask\$).ti,ab; 319 results.<br>26. MEDLINE; (doub\$ ADJ mask\$).ti,ab; 2682 results.<br>27. MEDLINE; (treb\$ ADJ mask\$).ti,ab; 0 results.<br>28. MEDLINE; (trip\$ ADJ mask\$).ti,ab; 40 results.<br>29. MEDLINE; PLACEBOS/; 32470 results.<br>30. MEDLINE; placebo\$.ti,ab; 162169 results.<br>31. MEDLINE; "randomly allocated".ti,ab; 17825 results.<br>32. MEDLINE; (allocated adj2 random\$).ti,ab; 20448 results.<br>33. MEDLINE; 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20; 955828 results.<br>34. MEDLINE; 21 OR 22 OR 23 OR 24 OR 25 OR 26 OR 27 OR 28 OR 29 OR 30 OR 31 OR 32; 240393 results.<br>35. MEDLINE; 33 OR 34; 1003856 results.<br>36. MEDLINE; "case report".ti,ab; 213017 results.<br>37. MEDLINE; LETTER/; 857908 results.<br>38. MEDLINE; HISTORICAL ARTICLE/; 304942 results.<br>39. MEDLINE; 36 OR 37 OR 38; 1363951 results.<br>40. MEDLINE; 35 not 39; 976279 results. |  |  |
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	41. MEDLINE; 6 AND 40; 766 results. 42. MEDLINE; 41 [Limit to: Publication Year 2012-2015]; 209 results.		
Cinahl	2. CINAHL; ((parent*-program*) OR (parent*-training) OR (parent*-education) OR (parent*-promotion) OR (parent* program*) OR (parent* training) OR (parent* education) OR (parent* promotion)).ti,ab; 12649 results. 3. CINAHL; CLINICAL TRIALS/ [Limit to: Publication Year 1860-2014]; 80740 results. 4. CINAHL; random*.ti,ab [Limit to: Publication Year 1860-2014]; 114037 results. 5. CINAHL; (doubl* adj3 blind*).ti,ab [Limit to: Publication Year 1860-2014]; 14072 results. 6. CINAHL; (singl* adj3 blind*).ti,ab [Limit to: Publication Year 1860-2014]; 2439 results. 7. CINAHL; EXPERIMENTAL DESIGN/ [Limit to: Publication Year 1860-2014]; 0 results. 8. CINAHL; controlled.ti,ab [Limit to: Publication Year 1860-2014]; 65946 results. 9. CINAHL; (clinical adj3 study).ti,ab [Limit to: Publication Year 1860-2014]; 10704 results. 10. CINAHL; trial.ti,ab [Limit to: Publication Year 1860-2014]; 68602 results. 11. CINAHL; "treatment outcome clinical trial".md [Limit to: Publication Year 1860-2014]; 1 results. 12. CINAHL; 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 [Limit to: Publication Year 1860-2014]; 207406 results. 13. CINAHL; 2 AND 12 [Limit to: Publication Year 1860-2014]; 1837 results. 14. CINAHL; 13 [Limit to: Publication Year 2012-2015]; 343 results.	343	0
Summary	NA	NA	

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