NKR 1 ADHD PICO 6 Forældretræningsprogrammer versus Kontrol

Characteristics of studies

Characteristics of included studies

Aghebati 2014

Study design: Randomized controlled trial Study grouping: Parallel group
Baseline Characteristics Intervention • Age in years, mean (SD): 7.7 (1.5) • Male gender (%): 64.3 • Proportion using ADHD medication (%): 100 Control • Age in years, mean (SD): 8.30 (1.2) • Male gender (%): 53.8 • Proportion using ADHD medication (%): 100 Overall • Age in years, mean (SD): 999 • Male gender (%): 62 • Proportion using ADHD medication (%): 100 Included criteria: Each family met the following inclusion criteria: child's age between 6 and 10 years (early school age); interested and cooperative family; diagnosis of ADHD by both a child and adolescent psychiatrist, and an interview based on Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) by a clinical psychologist. Excluded criteria: All children or mothers taking new medication in the last month or in regular contact with another professional for psychological problems were excluded. Pretreatment: None
Intervention Characteristics Intervention ● Description: The Level 4 of Triple P was used in this research. This is an 8-session group parenting program for parents of children with severe behavioral difficulties (5 workshop sessions for 2 hours and 3 telephone sessions for 15-30 minutes for each participant) ● Length of intervention (weeks): 5 weeks + 3 weeks telephone contact ● No. sessions per week: 1 (5 workshop sessions for 2 hours and 3 telephone sessions for 15-30 minutes for each participant). Control ● Description: The control group completed the questionnaires at the same time as the Triple P group. After post-test, the control group also participated in this intervention. ● Length of intervention (weeks): 8
ADHD kernesymptomer, forældrebedømt mean SD Outcome type: ContinuousOutcome Reporting: Fully reported Scale: Parenting scale Direction: Lower is better Data value: Endpoint Child behavior checklist (total score for int. og eks. symptomer), forældrebedømt, mean SD Outcome type: ContinuousOutcome Reporting: Fully reported Scale: Child behavior checklist Direction: Lower is better Data value: Endpoint
Sponsorship source: Not reported Country: Iran Setting: Comments: Authors name: Banafsheh Gharraee Institution: Department of Clinical Psychology, Tehran Institute of Psychiatry, School of Behavioral Sciences and Mental Health, Iran University of Medical Sciences, Tehran, Iran. Email: b-gharraee@iums.ac.ir Address: Tehran Institute of Psychiatry, School of Behavioral Sciences and Mental Health, Iran University of Medical Sciences, Tehran, Iran

Risk of bias table

Bias	Authors' judgement	Support for judgement	
Random sequence generation (selection bias)	High risk	Quote: Participants who met all of the criteria for this research were randomly placed into 2 groups (15 people in each group). Judgement Comment: Insufficient information on sequence generation	
Allocation concealment (selection bias)	High risk	Quote: "Participants who met all of the criteria for this research were randomly placed into 2 groups (15 people in each group). All of the" Judgement Comment: Insufficient information on allocation concealment	
Blinding of participants and personnel (performance bias)	High risk	Quote: "results were based on parents' reflections and perceptions regarding parenting and child behavior problems, and no objective measurements or indices were used to investigate it. It is also possible that results are biased by the fact that parents were the only source of information." Judgement Comment: Not possible to blind the participants	
Blinding of outcome assessment (detection bias)	High risk	Quote: "The limitation of this research was that results were based on parents' reflections and perceptions regarding parenting and child behavior problems, and no objective measurements or indices were used to investigate it. It is also possible that results are biased by the fact that parents were the only source of information."	
Incomplete outcome data (attrition bias)	Low risk	Quote: "30 families were enrolled, but 27 (14 intervention and 13 controls) participants completed the study." Quote: "test. There were no significant differences in any outcome measures between participants who completed post-tests versus those who did not. Of the 3 families who did not complete the post-test, 1 was an intervention group family (6.6%) and 2 (13.3%) were control group families. Chi-square"	
Selective reporting (reporting bias)	Low risk	Quote: "This study received ethical committee confirmation from Iran University of Medical Sciences. The Clinical Trial Registration number of the present study is 201111288234N1."	
Other bias	Low risk	Quote: "Declaration of interest: None."	

Au 2014

Methods	Study design: Randomized controlled trial Study grouping: Parallel group
Participants	Baseline Characteristics Intervention ● Age in years, mean (SD): 7.81 (0.75) ● Male gender (%): 8 in total
	Control ■ Age in years, mean (SD): 7.56 (1.26) ■ Male gender (%): 8 in total
	Included criteria: Inclusion criteria were the following: (a) children aged 5–10years; (b) children were diagnosed to have ADHD upon medicaldiagnosis according to theDSM-IV-TR; (c) children scored at orabove an estimated IQ of 80 on the Test of Nonverbal Intelli-gence, which is a language-free intelligence test measuringabstract problem-solving ability (Test Of Nonverbal Intelligence, Third Edition; Brown, Sherbenou, Johnsen, 1997); (d)parents were Chinese Cantonese speaking; (e) parents were themain caregivers of the child; (f) parents were living with theirchild; (g) parents did not have intellectual impairment or psy-chosis; and (h) parents did not receive formal behavioural treat-ment in the past Excluded criteria: Not reported Pretreatment: No significant differences in demographic characteristics between the intervention and control group
Interventions	Intervention Characteristics Intervention • Description: The intervention was Level 4 Group Triple P, which was com-posed of nine sessions, with five 2.5-hr group sessions, three telephone catch-up sessions at home, as well as one boostersession. • Length of intervention (weeks): 5 • No. sessions per week:
	Control • Description: Waiting list • Length of intervention (weeks): 5 • No. sessions per week:
Outcomes	ADHD kernesymptomer, forældrebedømt mean SD ■ Outcome type: Continuous Outcome ■ Scale: Eyberg Child Behaviour Inventory (ECBI),Intensity score.
Identification	Country: Hong Kong Authors name: Alma Au Institution: Department of Applied Social Sciences, The Hong Kong Polytechnic University Email: email: kammy-km.lau@polyu.edu.hk Address: Department of Applied Social Sciences, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong

Bias	Authors' judgement	Support for judgement	
Random sequence generation (selection bias)	High risk	Quote: "The randomisation was conducted by a research assistant who was not involved in this project."	
Allocation concealment (selection bias)	High risk	Quote: "respectively. The randomisation was conducted by a research assistant who was not involved in this project."	
Blinding of participants and personnel (performance bias)	Unclear risk	Judgement Comment: Insufficient information on blinding of participants and personnel	
Blinding of outcome assessment (detection bias)	Unclear risk	Judgement Comment: Insufficient information on blinding of outcome assesors	
Incomplete outcome data (attrition bias)	Low risk	Judgement Comment: No major dropouts.	
Selective reporting (reporting bias)	Low risk	Judgement Comment: No other apparent sources of bias	
Other bias	Low risk	Judgement Comment: The study appears to be free of other sources of bias	

Bai 2015

Methods	Study design: Cluster randomized controlled trial Study grouping: Parallel group
Participants	Baseline Characteristics Intervention • Age in years, mean (SD): 9.3 (2.8) • Male gender (%): 86.4 • Proportion using ADHD medication (%): 100
	Control • Age in years, mean (SD): 9.6 (2.9) • Male gender (%): 84.4 • Proportion using ADHD medication (%): 100
	Overall • Age in years, mean (SD): not reported • Male gender (%): not reported • Proportion using ADHD medication (%): 100
	Included criteria: the inclusion criteria for the patients were: 1) children or adolescents aged 6-16 years; 2) diagnosed as having ADHD, with the diagnosis, based on the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition(DSM-IV),23 first made by a pediatric psychiatrist and then validated with a semi-structured interview with the parents and the child using Barkley's Clinical Diagnostic Interview Scale,24 which had been used in our previous pharmacogenetic study;25 3) first referral to the hospital; and 4) a medication prescription, with the parents agree-ing with the prescription. Excluded criteria: The exclusion criteria for the patients were: 1) unsuitability for medication treatment; 2) intellectual disability (IQ □70); 3) a pervasive devel-opmental disorder or bipolar disorder or other psychoses making them unsuitable for participation in this study; 4) illiteracy of the parent/primary caregiver; and 5) unable to be followed up. Participants had to be the primary caregivers of the patients. Pretreatment: None
Interventions	Intervention Characteristics Intervention • Description: expert-guided lecture (with slides) at the recruitment, and a parent manual was provided. Two sessions of parent group activities were conducted by health educators at the second and fourth weeks after initiating medication. Posters focused on medication adherence were also offered during the group activities. Throughout the 3-month intervention period, parents in the intervention group participated in an online community, where they could communicate with other parents, share experiences, and receive professional counsel. • Length of intervention (weeks): 12 • No. sessions per week: Unclear
	Control • Description: The control group did not participate in the psychoeducation program, but only received general clinical counseling. After interventions were done, parents in the control group were offered the same psychoeducation interventions at their request. However, during the period of implementing the program, the control group was kept separate from the intervention group by the arrangement of different clinical visit times to effectively avoid contamination.
Outcomes	ADHD kernesymptomer, forældrebedømt mean SD Outcome type: ContinuousOutcome Scale: ADHD, total score Direction: Lower is better Data value: Endpoint
Identification	Sponsorship source: This research was funded by the Capital Health Development Research Fund (2011-4024-04), the Major State Basic Research Development Program of China (973 Program, 2014CB846100), the National Natural Science Foundation of China (81471381), and the National Key Technology Research and Development Program of the Ministry of Science and Technology of China (grant number 2015BAI13B01). Country: People's republic of china Setting:

	Comments:
	Authors name: Wen-yi Niu
	Institution: Department of social Medicine and health education, school of Public health, Peking University
	Email: health1956@163.com
	Address: 38 Xueyuan road, haidian District, Beijing 100191, People's republic of china
Notes	

Bias	Authors' judgement	Support for judgement	
Random sequence generation (selection bias)	Unclear risk	Quote: "A cluster randomization scheme was used to allocate the clusters. The block size was 4. The allocation scheme was performed by the primary investigator." Judgement Comment: Insufficient information on sequence generation	
Allocation concealment (selection bias)	High risk	Quote: "The other investigator was informed of the allocation result after recruitment was done. This scheme assured a balance of subject numbers between the two groups, and possible contamination was avoided by arranging the groups' visits to the hospital for separate times. Both"	
Blinding of participants and personnel (performance bias)	Low risk	Quote: "though they were blinded to what the other group received in terms of education."	
Blinding of outcome assessment (detection bias)	Low risk	Quote: "Well-trained interviewers guided parents through completing the questionnaires."	
Incomplete outcome data (attrition bias)	Low risk	Quote: "Figure 2 cONsOrT diagram to illustrate study recruitment, random assignment, and data analysis." Judgement Comment: None dropped out during the intervention.	
Selective reporting (reporting bias)	Unclear risk	Quote: "This study was approved by both the ethics committee of the Peking University Health Science Center (Beijing, People's Republic of China) and the institutional review board of Peking University Sixth Hospital." Judgement Comment: No reference to study protocol	
Other bias	Low risk	Quote: "This research was funded by the Capital Health Development Research Fund (2011-4024-04), the Major State Basic Research Development Program of China (973 Program, 2014CB846100), the National Natural Science Foundation of China (81471381), and the National Key Technology Research and Development Program of the Ministry of Science and Technology of China (grant number 2015BAl13B01). Disclosure The authors report no conflicts of interest in this work." Judgement Comment: The study appears to be free of other sources of bias	

Dose 2017

Methods	Study design: Randomized controlled trial Study grouping: Parallel group
Participants	Baseline Characteristics Intervention • Age in years, mean (SD): 9.84 (1.54) • Male gender (%): 75 • Proportion using ADHD medication (%): 100
	Control ■ Age in years, mean (SD): 9.72 (1.65) ■ Male gender (%): 88 ■ Proportion using ADHD medication (%): 100
	Included criteria: Parents were eligible for the study if their child was aged 6–12 years, attending school, had been diagnosed with ADHD by a pediatrician or child psychiatrist, was on methylphenidate with a stable dose for at least the previous 2 months, and no change of medication or dose was planned. The child also had to show functional impairment in at least one of the domains captured by the German translation of the Weiss Functional Impairment Rating Scale-Parent Report(WFIRS-P; Canadian Attention Deficit Hyperactivity Disorder Resource Alliance, CADDRA, 2011). To define the presence of functional impairment, we followed the instructions provided by the authors of the WFIRS-P (see Measures section). In addition, participating parents had to be motivated to take part in the study, be able to write and speak German, and were not already regularly involved in a possible psychotherapy for their child. Excluded criteria: Not reported Pretreatment: Number of male participants
Interventions	Intervention Characteristics Intervention • Description: Enhancement group parents participated in the 12-month behavioral TASH program for parents of children with disruptive problem behavior (Doepfner et al., 2011). The intervention consists of reading eight self-help booklets dealing with disruptive behavior disorders and parenting. A booklet wasmailed to parents approximately every 2 weeks and coveredthe following areas: (a) definition of individual problem behav-ior which the parents wanted to address during the course ofthe intervention (e.g. problem behavior concerning life skills asgetting ready for bed, problem behavior concerning socialactivities like aggressive behavior toward siblings), (b) psychoeducation, (c) encouragement of positive parent-child interactions (i.e. focusing on positive qualities of the child aswell as situations which are already handled well and giving the child positive feedback about them, implementing positive play interactions), (d) implementation of family rules and effective requests, (e) appropriate positive and negative consequences of obeying or breaking rules, (f) promoting strengths of the child and advice for some specific problem

	situations (e.g. use of media, helping the child to resolveconflicts with peers), (g) developing everyday structures and stress reduction for parents, and (h) reward systems. Parents also received 10 telephone consultations of about 30 min eachduring the first 6 months and four booster telephone consultations during the second 6-month period to help them applying the advice given to the specific problem behaviors of their child. • Length of intervention (weeks): 52 • No. sessions per week: 0,5 (1 every 2 weeks) Control • Description: The CG received only routineclinical care, including continued medication. • Length of intervention (weeks): 52 • No. sessions per week: not reported
Outcomes	ADHD kernesymptomer, forældrebedømt mean SD Outcome type: ContinuousOutcome Reporting: Fully reported Scale: BB-ADHS -total symptom score Direction: Lower is better Data value: Endpoint
Identification	Sponsorship source: The study was supported by a grant from ShirePharmaceuticals Development Ltd. (unrestrictedgrant). M.D. received consulting income and researchsupport from Lilly, Medice, Shire, Janssen Cilag,Novartis, and Vifor. M.D., S.S., and K.W. receivedroyalties from treatment manuals, books, and psy-chological tests published by Guilford, Hogrefe,Enke, Beltz, and Huber. Country: Germany Setting: Comments: Authors name: Manfred Doepfner Institution: Department for Child and Adolescent Psychiatry, Psychosomatics and Psychotherapy, University of Cologne Email: manfred.doepfner@uk-koeln.de Address: Robert-Koch-Str.10,50931Cologne,Germany The RCT was registered at ClinicalTrials.gov (identifier:NCT01660425; URL: https://clinicaltrials.gov/ct2/show/NCT01660425)
Notes	

Bias	Authors' judgement	Support for judgement	
Random sequence generation (selection bias)	Unclear risk	Quote: Participating families were randomly assigned to either an enhancement group (EG; n = 51) or a CG (n = 52; see Figure 1). The randomization process was carried out using computerized block-randomization (blocks of four families).	
Allocation concealment (selection bias)	Unclear risk	Judgement Comment: Nothing is described	
Blinding of participants and personnel (performance bias)	Unclear risk	Judgement Comment: Insufficient information	
Blinding of outcome assessment (detection bias)	High risk	Quote: "all outcome variables were only rated by the participating parent, the results might be biased by effort-justification. On the other hand, even if only the parents' perspectives change, this might lead to changes in parenting behavior, and thereby, influence child behavior in the long term. Moreover, a previous study has shown that the effects of parent management training on child behavior problems can also be identified in the ratings of the partners of participating parents, who did not take part in the study themselves and whose ratings were thus probably less biased by effort-justification (Hautmann et al., 2013)." Quote: "Second, treatment integrity was only rated by the counselors who performed the consultations and not by an independent evaluator; thus, rat- ings on treatment integrity might have been overestimated."	
Incomplete outcome data (attrition bias)	Low risk	Quote: "Figure 1 Participant flow" Quote: "Both intention-to-treat and per-protocol analyses were conducted, the intention-to-treat analyses forming the primary analytic approach. The inten- tion-to-treat sample consisted of all families which had been randomized. For" Quote: "Missing values for dosages at postassessment were replaced using the EM proced with dosages at baseline and available information on dosages at postassessment as predictors (intention-to-treat sample: 17 cases with missing values in the EG and 16 cases with missing values in the CG; per-protocol sample: two cases with missing values in the EG and five cases with missing values in the CG)." Judgement Comment: Missing data have been imputed using appropiate methods. However there were a higher rate of non-completers in the intervention group (18 versus 11)	
Selective reporting (reporting bias)	Low risk	Quote: "The RCT was registered at ClinicalTrials.gov (identifier: NCT01660425; URL: https://clinicaltrials.gov/ct2/show/ NCT01660425) and approved by the Medical Ethical Committee of the University Hospital of Cologne, Germany."	
Other bias	Low risk	Judgement Comment: The study appears to be free of other sources of bias	

Fallone 1998

Methods	
Participants	
Interventions	
Outcomes	
Identification	
Notes	Data obtained from: Zwi M, Jones H, Thorgaard C, York A, Dennis JA. Parent training interventions for Attention Deficit Hyperactivity Disorder (ADHD) in children aged 5-18 years. Cochrane database of Systematic Reviews 2011, Issue 12. Art. No.: CD003018.

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Reference: Zwi et al., 2011.
Allocation concealment (selection bias)	Unclear risk	Reference: Zwi et al., 2011.
Blinding of participants and personnel (performance bias)	High risk	Reference: Zwi et al., 2011.
Blinding of outcome assessment (detection bias)	High risk	Reference: Zwi et al., 2011.
Incomplete outcome data (attrition bias)	Low risk	Reference: Zwi et al., 2011.
Selective reporting (reporting bias)	High risk	Reference: Zwi et al., 2011.
Other bias	Unclear risk	Reference: Zwi et al., 2011.

Lehner-Dua 2001

Methods	
Participants	
Interventions	
Outcomes	
Identification	
Notes	Data obtained from: Zwi M, Jones H, Thorgaard C, York A, Dennis JA. Parent training interventions for Attention Deficit Hyperactivity Disorder (ADHD) in children aged 5-18 years. Cochrane database of Systematic Reviews 2011, Issue 12. Art. No.: CD003018.

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Reference: Zwi et al., 2011.
Allocation concealment (selection bias)	Unclear risk	Reference: Zwi et al., 2011.
Blinding of participants and personnel (performance bias)	High risk	Reference: Zwi et al., 2011.
Blinding of outcome assessment (detection bias)	High risk	Reference: Zwi et al., 2011.
Incomplete outcome data (attrition bias)	High risk	Reference: Zwi et al., 2011.
Selective reporting (reporting bias)	Unclear risk	Reference: Zwi et al., 2011.
Other bias	High risk	Reference: Zwi et al., 2011.

Mikami 2010

Methods	
Participants	
Interventions	
Outcomes	
Identification	
Notes	Data obtained from: Zwi M, Jones H, Thorgaard C, York A, Dennis JA. Parent training interventions for Attention Deficit Hyperactivity Disorder (ADHD) in children aged 5-18 years. Cochrane database of Systematic Reviews 2011, Issue 12. Art. No.: CD003018.

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Reference: Zwi et al., 2011.
Allocation concealment (selection bias)	Unclear risk	Reference: Zwi et al., 2011.
Blinding of participants and personnel (performance bias)	High risk	Reference: Zwi et al., 2011.
Blinding of outcome assessment (detection bias)	Low risk	Reference: Zwi et al., 2011.

Incomplete outcome data (attrition bias)	Low risk	Reference: Zwi et al., 2011.
Selective reporting (reporting bias)	Unclear risk	Reference: Zwi et al., 2011.
Other bias	Low risk	Reference: Zwi et al., 2011.

Montoya 2014

Methods	Study design: Cluster randomized controlled trial Study grouping: Parallel group			
Participants	Baseline Characteristics Intervention • Age in years, mean (SD): 9.3 (1.9) • Male gender (%): 73.6 • Proportion using ADHD medication (%): 0 Control • Age in years, mean (SD): 8.8 (1.8) • Male gender (%): 70.6			
	 Proportion using ADHD medication (%): 0 Overall Age in years, mean (SD): not reported Male gender (%): 72 Proportion using ADHD medication (%): 0 			
	Included criteria: Eligible patients were children or adolescents aged 6-12years with a clinically confirmed diagnosis of ADHD (Diagnostic and Statistical Manual of Mental Disorders, Text Revision Fourth Edition [DSM-IV-TR] criteria), an Attention Deficit Hyperactivity Disorder Rating Scale IV-Parent Version (ADHD-RS-IV Parent:Inv) score at least 1.5standard deviations above the age norm for their diagnostic subtype, and a Clinical Global Impression-ADHD Severity (CGI-ADHD-S) score □4at baseline. Patients were required to be pharmacologically naïve and willing to commence on medication at the same time as the first planned psychoeducation session. Adjustment of doses of pharmacologic treatment was allowed at the discretion of the prescribing physician. The presence of any learning difficulties, based on patient medical history and physician reports, was recorded Participating parents/guardians were required to be the primary caregiver and legal guardian of the patient at the time of initial diagnosis of ADHD. Before randomization, parents/guardians were also required to agree to possible participation in the psychoeducation program. Excluded criteria: Parents/guardians were not eligible for inclusion if pharmacologic treatment for ADHD was contraindicated for their children, or if either the parent/guardian or child was likely to start a structured psychoeducation program for ADHD outside of this trial. Parents/guardians were also excluded if their children had a history of bipolar disorder, psychosis, or autism spectrum disorder, or were in any way unsuitable to participate in the study. Pretreatment: None			
Interventions	Intervention Characteristics Intervention 1 • Description: Standard course of medication in addition to parental psychoeducation. Medication was administered at the discretion of the attending physician in accordance with the ADHD guidelines produced by the National Institute for Health and Care Excellence. The psychoeducation program was designed specifically to be administered to small groups of parents (eg, 5–6 parents per group) within one month of receipt of a diagnosis of ADHD Parental psychoeducation sessions lasted for 90minutes and were given once weekly for the first 4weeks followed by a fifth session after a 5-week break. Sessions were offered at lexible times, although most took place in the late afternoon. They consisted of lectures, small-group and large-group discussions, shared learning from previous sessions, and homework. Details of session content are provided in Table1 and include provision of information on ADHD in general, pharmacologic management, and behavior management. Patients and parents attended the clinic for up to 12months of follow-up, with assessments at baseline and at weeks 4, 12, 24, and 52 following randomization. In addition, patient progress was monitored by telephone call between each clinic visit (a total of four telephone calls). • Length of intervention (weeks): 9 • No. sessions per week: Once weekly for the first 4 weeks followed by a fifth session after a 5-week break. Control • Description: Following baseline assessments and randomization, patients commenced treatment with a standard			
	course of medication alone • Length of intervention (weeks): • No. sessions per week:			
Outcomes	ADHD kernesymptomer, forældrebedømt, CHANGE, mean SE Outcome type: ContinuousOutcome Reporting: Fully reported Scale: ADHD-RS -IV Data value: Change from baseline Notes: aflæst på graf v Month 1			
Identification	Sponsorship source: AM and PP are full-time employees of and shareholders in Eli Lilly. AH is a consultant for Eli Lilly, and a consultant and speaker for Shire. In the past 3years, JF has participated in advisory activities, unrestricted educational activities, and research projects sponsored by Janssen, Eli Lilly, Shire, Roche, and public/not for profit agencies. EC has received compensation for serving as a consultant or speaker. Her institution has received research support or royalties from Eli Lilly, the Health Spanish Ministry Research Fund, the Ministry of Education Grant Research, Shire, and UCB. JQ has served as an investigator for Janssen-Cilag and Shire, and as a speaker for Janssen-Cilag, Shire, and Eli Lilly. RT was a member of the DSM-5Work Group on ADHD and externalizing disorders, and has received speaker fees for an unrestricted talk, consultancy, and an advisory board meet-ing from Eli Lilly and Shire in the past 3years. The			

8

	authors acknowledge the editorial support provided by David Peters and Sue Chambers of Rx Communications, Mold, UK, which was funded by Eli Lilly and Co.
	Country: Canada
	Setting: the trial was conducted in 27centers in Spain
	Comments:
	Authors name: Alonso Montoya
	Institution: Medical Neurosciences, lilly research laboratories, eli lilly canada inc,
	Email: montoya_alonso@lilly.com
	Address: 3650 Danforth Avenue, Toronto, ON, Canada
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Ouote: Centers recruited patients sequentially over time into clusters and each cluster was then randomly assigned, stratified by clinic size, to parental psychoeducation plus medication or to medication alone, according to a concealed computer- generated sequence provided by the sponsor.
Allocation concealment (selection bias)	Low risk	Quote: "Centers recruited patients sequentially over time into clusters and each cluster was then randomly assigned, stratified by clinic size, to parental psychoeducation plus medication or to medication alone, according to a concealed computer- generated sequence provided by the sponsor."
Blinding of participants and personnel (performance bias)	High risk	Quote: "the study was not blinded; therefore, the pos- sibility of investigator and informant (parent) assessment bias cannot be discounted." Quote: "This was a 12-month, multicenter, cluster-randomized, parallel-group, nonblinded trial of adjunctive parental psycho- education plus medication versus medication alone on patient persistence with pharmacotherapy, involving the parents of patients aged 6–12 years with newly diagnosed ADHD. The psychoeducation program was"
Blinding of outcome assessment (detection bias)	High risk	Quote: "addition, the study was not blinded; therefore, the possibility of investigator and informant (parent) assessment bias cannot be discounted."
Incomplete outcome data (attrition bias)	Low risk	Quote: "A total of 28 patients discontinued the study in the psychoeducation group (19.4%) com- pared with 34 patients in the control group (27.0%), and the reasons for discontinuation were similar in the two groups (Table 3)."
Selective reporting (reporting bias)	Low risk	Quote: "The trial was conducted in 27 centers in Spain. It adhered to the principles of the Declaration of Helsinki and was approved by local ethical review boards." Judgement Comment: Study protocol is not available, but the published reports include all expected outcomes
Other bias	High risk	Quote: "This study was terminated early because recruitment had slowed dramatically despite extension of the recruitment period. The decision was made to analyze the available data even though the study would be underpowered, because prolonging recruitment for a longer period could put the validity of the data at risk due to a lack of control over evolving environmental conditions. Thus, compared with the 90 clusters and 360 patients required, only 65 clusters and 272 patients entered the study between May 2009 and October 2012."

Pfiffner 2014

Methods	Study design: Randomized controlled trial Study grouping: Parallel group
Participants	Baseline Characteristics Intervention • Age in years, mean (SD): 8.7 (1.2) • Male gender (%): 64.9 • Proportion using ADHD medication (%): 1.4
	Control • Age in years, mean (SD): 8.4 (1.1) • Male gender (%): 58.8 • Proportion using ADHD medication (%): 2
	Overall • Age in years, mean (SD): 8.6 • Male gender (%): 58 • Proportion using ADHD medication (%): not reported
	Included criteria: Inclusion criteria specified a primary DSM-IV diagnosis of ADHD-I (confirmed by the KSADS-PL; see below), IQ > 80 (confirmed with the Wechsler Intelligence Scale for Children, version IV [WISC-IV, Wechsler, 2003]), living with at least one parent for the past year, child age between 7-11 years (and grades 2-5), attending school full time in a regular classroom, ability to participate in our groups on the days scheduled, school proximity within 45 minutes of study site to allow for the clinician to conduct school meetings, and teacher consent to participate in a school-based treatment. Excluded criteria: Families of children who were taking non-stimulant psychoactive medication were excluded because of difficulty withholding medication to confirm ADHD-I symptoms, as were cases planning to initiate or change medication treatment (stimulant or otherwise) in the near term. Children with significant developmental disorders (e.g., pervasive developmental disorder) or neurological illnesses were also excluded.

	Pretreatment: On medication at randomization
Interventions	Intervention • Description: Parent Focused Treatment (PFT)—PFT included only the parent training group component described above (Pfiffner et al., 2014) which was adapted from existing parent training programs (Barkley, 1987; Forehand McMahon, 1981; Wells et al., 1996). Parent skills taught were identical to those in the Child Llfe and Attention Skills Treatment (CLAS) parent group (see description above). However, PFT families did not receive specific training in how to work with teachers and were not informed about the child skills taught in the CLAS condition. PFT families received the same number of parent groups and individual family meetings as CLAS families, although children did not attend the individual family meetings. Childcare was offered to families while the parent group was held. The PFT condition did not include a child skills group or direct teacher consultation. Instead, teachers were contacted by mail regarding the study, given written information about ADHD-I and suggested classroom accommodations, and invited to call the therapists with any questions. Telephone contact with PFT teachers was limited to only a few teachers who had general questions about the study or related materials • Length of intervention (weeks): 10-13 • No. sessions per week: not reported Control • Description: Treatment as Usual (TAU)—TAU did not receive either study treatment. As with all other families, TAU families received a written diagnostic report based on the assessment conducted at baseline. Families in the TAU condition also received a list of community treatment providers but were not given specific treatment recommendation • Length of intervention (weeks): 10-13
Outcomes	ADHD kernesymptomer, forældrebedømt mean SE Outcome type: ContinuousOutcome Scale: CGI-I -parent Direction: Higher is better Data value: Endpoint ADHD kernesymptomer, lærerbedømt, mean SE Outcome type: ContinuousOutcome Reporting: Fully reported Scale: CGI-I, teacher Direction: Higher is better Data value: Endpoint
Identification	Sponsorship source: Country: USA Setting: Comments: Authors name: Linda J. Pfiffner Institution: Department of Psychiatry, Email: lindap@lppi.ucsf.edu. Address: 401 Parnassus Ave., Box 0984, University of California, San Francisco, San Francisco, CA 94143
Notes	

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Quote: Children were randomized within site to the Child Life and Attention Skills Treatment (CLAS; 36 at site 1 and 38 at site 2; 74 total), Parent Focused Treatment (PFT; 36 at site 1 and 38 at site 2; 74 total), or treatment as usual (TAU; 24 at site 1 and 27 at site 2; 51 total).
Allocation concealment (selection bias)	Unclear risk	Quote: "Parents were informed of their randomization status after they completed both visits." Judgement Comment: Insufficient information
Blinding of participants and personnel (performance bias)	High risk	Quote: "Third, because the core outcome measures showing treatment effects were gathered from parents and teachers involved in the treatment, rater bias or expectancy is a potential explanatory factor." Quote: "Parents also completed a battery of questionnaires over two visits, and children were administered the WISC-IV and a battery of tests and questionnaires. Those providing data for the current paper are described below. Parents were informed of their randomization status after they completed both visits"
Blinding of outcome assessment (detection bias)	High risk	Quote: "Third, because the core outcome measures showing treatment effects were gathered from parents and teachers involved in the treatment, rater bias or expectancy is a potential explanatory factor."
Incomplete outcome data (attrition bias)	Low risk	Quote: "Very few data were missing at pre-treatment (19 values, 0.8%) or post-treatment (53 values, 3.3%), so none were imputed. Across the 1592 follow-up outcome values, 168 were missing (10.6%). Most of the missing data related to attrition." Quote: "Figure 1. Participant Flow Chart"
Selective reporting (reporting bias)	Low risk	Judgement Comment: Insufficient information.No reference to study protocol.
Other bias	Low risk	Quote: "This research was supported by a grant from the National Institute of Mental Health MH077671."

Steeger 2016

Methods	Study design: 2x2 mixed group factorial design Study grouping: Parallel group
Participants	Baseline Characteristics Intervention 1 • Age in years, mean (SD): 12.6 (1.3) • Male gender (%): 77 • Proportion using ADHD medication (%): 86 Intervention 2 • Age in years, mean (SD): 12.0 (1.0) • Male gender (%): 55 • Proportion using ADHD medication (%): 86
	Intervention 3 ■ Age in years, mean (SD): 12.6 (1.3) ■ Male gender (%): 71 ■ Proportion using ADHD medication (%): 92
	Control • Age in years, mean (SD): 12.7 (1.0) • Male gender (%): 74 • Proportion using ADHD medication (%): 70 Overall • Age in years, mean (SD): 12.5 (1.2) • Male gender (%): 69 • Proportion using ADHD medication (%): 84
	Included criteria: If the phone screening indicated that the adolescent had suspectedADHD and no autism spectrum disorder diagnosis, the dyad was scheduled for a baselineassessment Pretreatment: adolescent school grade
Interventions	Intervention Characteristics Intervention 1 (treatment CWMT/Treatment BPT) ● Description: CWMT: high- dose version of Cogmed-RM,an at-home, 25-day, computerized WM training program. BPTI: Mothers completed five consecutive, once-weekly, 90-minute parent education sessions. The treatment and active control. BPT groups met on Sundays (at different times) in the same university classroom. Thefaculty principal investigator of this study and an advanced doctoral student were thefacilitator and cofacilitator, respectively, for both BPT conditions. Based on their availability, mothers were alternated into the two meeting times such that the groups wereapproximately equal. Subsequently, a blinded researcher with no participant contactrandomly assigned treatment to meeting time by a coin flip. Mothers received a \$50 bonus for attending all sessions. Mothers were required to complete at least four sessionsto be included in analyses. Treatment BPT Description. Our 5-week treatment BPT program combinedaspects of several promising programs into a comprehensive and condensed groupapproach. We drew heavily from COPE (Cunningham,2006), as well as therapy manualsand parent self-help guides focused on defiant adolescents (Barkley, Edwards, Robin,1999; Barkley, Robin, Benton,2008). Content was aimed at increasing positive mother-adolescent interactions, adolescent compliance, and maternal control, while reducingmother-adolescent conflict and adolescent oppositional and defiant behavior (seeTable 1). Sessions were participatory and involved presentations, discussion, and role-plays of specific parenting skills. Weekly homework was assigned to mothers to practicecontent with their adolescents in between the group sessions. ● Length of intervention (weeks): 5 ● No. sessions per week: CWMT: Participants completed a total of 120 trials per day (15 trials in each eight dailyexercises) before they were allowed to progress to the next day of training
	Intervention 2 (Treatment CWMT/Control BPT) • Description: CWMT: high- dose version of Cogmed-RM,an at-home, 25-day, computerized WM training program. BPTI: Mothers completed five consecutive, once-weekly, 90-minute parent education sessions. The treatment and active control. BPT groups met on Sundays (at different times) in the same university classroom. Thefaculty principal investigator of this study and an advanced doctoral student were thefacilitator and cofacilitator, respectively, for both BPT conditions. Based on their availability, mothers were alternated into the two meeting times such that the groups wereapproximately equal. Subsequently, a blinded researcher with no participant contactrandomly assigned treatment to meeting time by a coin flip. Mothers received a \$50 bonus for attending all sessions. Mothers were required to complete at least four sessionsto be included in analyses. Active Control BPT Description. The active control BPT program consisted of 5 weeks of didactic lectures on adolescent physical, cognitive, emotional, and social development. For homework, weekly readings were assigned from a self-help adolescent development guide for parents (Steinberg, 2011). There were no opportunities for practice or feedback concerning specific parenting skills during the didactic sessions.
	 Length of intervention (weeks): 5 No. sessions per week: 1
	Intervention 3 (Control CWMT/Treatment BPT) ● Description: CWMT: low-dose version of Cogmed-RM,an at-home, 25-day, computerized WM training program. Active Control BPT Description. The active control BPT program consisted of5 weeks of didactic lectures on adolescent physical, cognitive, emotional, and socialdevelopment. For homework, weekly readings were assigned from a self-help adolescentdevelopment guide for parents (Steinberg,2011). There were no opportunities for practiceor feedback concerning specific parenting skills during the didactic sessions. Treatment BPT Description.Our 5-week treatment BPT program combinedaspects of several promising programs into a comprehensive and condensed groupapproach. We drew heavily from COPE (Cunningham,2006), as well as therapy

	manualsand parent self-help guides focused on defiant adolescents (Barkley, Edwards, Robin, 1999; Barkley, Robin, Benton, 2008). Content was aimed at increasing positive mother-adolescent interactions, adolescent compliance, and maternal control, while reducing mother-adolescent conflict and adolescent oppositional and defiant behavior (seeTable 1). Sessions were participatory and involved presentations, discussion, and role-plays of specific parenting skills. Weekly homework was assigned to mothers to practicecontent with their adolescents in between the group sessions. • Length of intervention (weeks): 5 • No. sessions per week: 1					
	Control (Control CWMT/Control BPT) • Description: CWMT: low-dose version of Cogmed-RM, an at-home, 25-day, computerized WM training program. Active Control BPT Description. The active control BPT program consisted of5 weeks of didactic lectures on adolescent physical, cognitive, emotional, and socialdevelopment. For homework, weekly readings were assigned from a self-help adolescentdevelopment guide for parents (Steinberg,2011). There were no opportunities for practiceor feedback concerning specific parenting skills during the didactic sessions. Active Control BPT Description. The active control BPT program consisted of 5 weeks of didactic lectures on adolescent physical, cognitive, emotional, and social development. For homework, weekly readings were assigned from a self-help adolescent development guide for parents (Steinberg, 2011). There were no opportunities for practice or feedback concerning specific parenting skills during the didactic sessions. • Length of intervention (weeks): 5 • No. sessions per week: 1					
Outcomes	ADHD kernesymptomer, forældrebedømt mean SD Outcome type: ContinuousOutcome Reporting: Fully reported Scale: inattentive symptoms, mother Data value: Endpoint ADHD kernesymptomer, lærerbedømt, mean SD					
	Outcome type: ContinuousOutcome Unit of measure: inattentive symptoms -teacher Data value: Endpoint					
	Adfærdsforstyrrelser, forældrebedømt, mean SD Outcome type: ContinuousOutcome Scale: behavior regulation problems - mother Direction: Lower is better Data value: Endpoint					
	Adfærdsforstyrrelser, lærerbedømt, mean SD Outcome type: ContinuousOutcome Reporting: Fully reported Scale: behavior regulation problems - teacher Data value: Endpoint					
Identification	Sponsorship source: Funding for the project was provided to the authors from Translational Research Pilot Fund, Indiana Clinicaland Translational Sciences Institute (I-CTSI; NIH Award No. RR025761], Predoctoral Training Fellowship inTranslational Research (NIH/NCRR-I-CTSI)-TL1 Program (A. Shekhar, PI), Fahs-Beck Fund for Research andExperimentation, and the Institute for Scholarship in the Liberal Arts, Office of Research, Swarm GraduateResearch Award Program, and Kill Family Fund for ADHD research, which are all at the University of NotreDame. Manuscript preparation was supported in part by an NIH/NIDA T32 Research Training Program inSubstance Abuse Prevention Research (Yale University School of Medicine). The content is solely the responsi-bility of the authors and does not necessarily represent the official views of any of the funding entities Country: USA Setting: Comments: Authors name: Christine M. Steeger					
	Institution: Department of Psychiatry, Yale University School of Medicine Email: christine.steeger@yale.edu Address: 389 Whitney Avenue, New Haven, CT 06511.					
Notes						

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	High risk	Quote: rigorous design included random assignment to structurally equivalent treatment and active control groups and consideration of CWMT and BPT as separate and potentially multiplicative factors. We employed a 2 x 2 mixed-group factorial design, which included CWMT and BPT Interventions as the between-subjects factors, and pretest-posttest (Time) as the within-subjects factor.
Allocation concealment (selection bias)	High risk	Judgement Comment: No description about allocation concealment
Blinding of participants and personnel (performance bias)	Low risk	Quote: "Adolescents, mothers, and teachers were intentionally blind to adolescent CWMT condition and maternal BPT" Judgement Comment: Assesors were also blind to participant conditions

12

Blinding of outcome assessment (detection bias)	Low risk	Quote: "Assessors were also blind to participant conditions."
Incomplete outcome data (attrition bias)	Unclear risk	Quote: "Figure 1 Flowchart and 2 x 2 mixed factorial study design." Judgement Comment: Unbalanced missing outcome data accross the intervention groups
Selective reporting (reporting bias)	Unclear risk	Judgement Comment: No pre-specified protocol available and statistical analysis is described under the results section.
Other bias	Low risk	Quote: "Funding for the project was provided to the authors from Translational Research Pilot Fund, Indiana Clinical and Translational Sciences Institute (I-CTSI; NIH Award No. RR025761], Predoctoral Training Fellowship in Translational Research (NIH/NCRR-I-CTSI)-TL1 Program (A. Shekhar, PI), Fahs-Beck Fund for Research and Experimentation, and the Institute for Scholarship in the Liberal Arts, Office of Research, Swarm Graduate Research Award Program, and Kill Family Fund for ADHD research, which are all at the University of Notre Dame. Manuscript preparation was supported in part by an NIH/NIDA T32 Research Training Program in Substance Abuse Prevention Research (Yale University School of Medicine). The content is solely the responsibility of the authors and does not necessarily represent the official views of any of the funding entities." Judgement Comment: The study appears to be free of other sources of bias.

van den Hoofdakker 2007

Methods	
Participants	
Interventions	
Outcomes	
Identification	
Notes	Data obtained from: Zwi M, Jones H, Thorgaard C, York A, Dennis JA. Parent training interventions for Attention Deficit Hyperactivity Disorder (ADHD) in children aged 5-18 years. Cochrane database of Systematic Reviews 2011, Issue 12. Art. No.: CD003018.

Risk of bias table

Bias	Authors' judgement	Support for judgement	
Random sequence generation (selection bias)	Unclear risk	Reference: Zwi et al., 2011.	
Allocation concealment (selection bias)	Unclear risk	Reference: Zwi et al., 2011.	
Blinding of participants and personnel (performance bias)	High risk	Reference: Zwi et al., 2011.	
Blinding of outcome assessment (detection bias)	Unclear risk	Reference: Zwi et al., 2011.	
Incomplete outcome data (attrition bias)	Low risk	Reference: Zwi et al., 2011.	
Selective reporting (reporting bias)	High risk	Reference: Zwi et al., 2011.	
Other bias	Low risk	Reference: Zwi et al., 2011.	

Footnotes

Summary of findings tables

Additional tables

Data and analyses

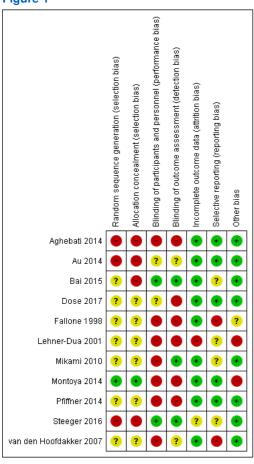
1 Forældretræning vs. Kontrol

Outcome or Subgroup	Studies	Participants	Statistical Method	Effect Estimate
1.1 ADHD kernesymptomer, forældrebedømt mean SD	8	806	Std. Mean Difference (IV, Random, 95% CI)	-0.48 [-0.86, -0.11]
1.3 ADHD kernesymptomer, lærerbedømt, mean SD	2	213	Std. Mean Difference (IV, Random, 95% CI)	0.15 [-0.21, 0.50]
1.5 Adfærdsforstyrrelser, forældrebedømt, mean SD	1	96	Mean Difference (IV, Fixed, 95% CI)	-1.57 [-5.73, 2.59]
1.7 Adfærdsforstyrrelser, lærerbedømt, mean SD	1	96	Mean Difference (IV, Fixed, 95% CI)	-0.17 [-4.58, 4.25]
1.8 Livskvalitet	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.9 Eksternaliserende symptomer, forældrebedømt, mean SD	3	174	Std. Mean Difference (IV, Random, 95% CI)	-0.32 [-0.83, 0.18]
1.10 Internaliserende symptomer, forældrebedømt, mean SD	2	142	Std. Mean Difference (IV, Random, 95% CI)	-0.48 [-0.84, -0.13]

1.11 Eksternaliserende og Internaliserende	1	27	Mean Difference (IV, Fixed, 95% CI)	-20.26 [-21.26, -19.26]
symptomer, total score (child behavior				
checklist), forældrebedømt, mean SD				

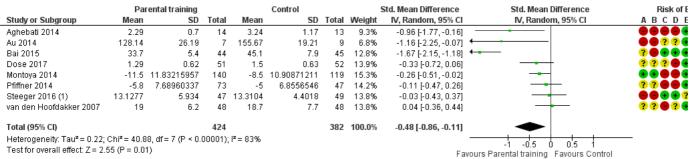
Figures

Figure 1



Risk of bias summary: review authors' judgements about each risk of bias item for each included study.

Figure 2 (Analysis 1.1)



Test for overall effect: Z = 2.55 (P = 0.01)

(1) Gr. 1 og Gr. 3 lagt sammen i interventionsgruppe og gr. 2 og gr. 4 er lagt sammen i kontrolgruppe

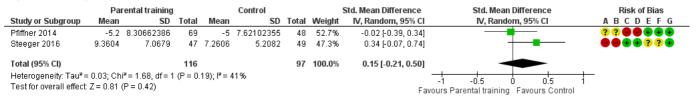
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)

(G) Other bias

Forest plot of comparison: 1 Forældretræning vs. Kontrol, outcome: 1.1 ADHD kernesymptomer, forældrebedømt mean SD.

Figure 4 (Analysis 1.3)

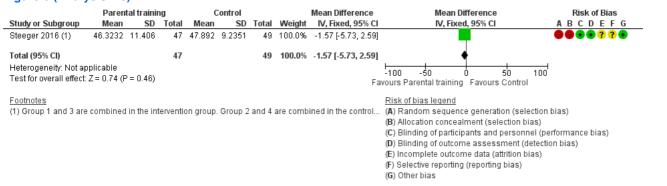


Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

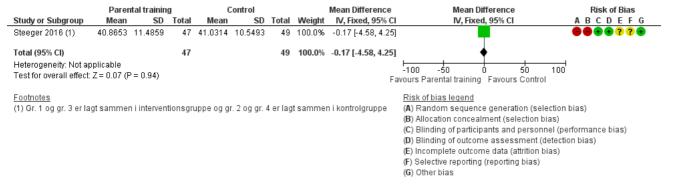
Forest plot of comparison: 1 Forældretræning vs. Kontrol, outcome: 1.3 ADHD kernesymptomer, lærerbedømt, mean SD.

Figure 5 (Analysis 1.5)



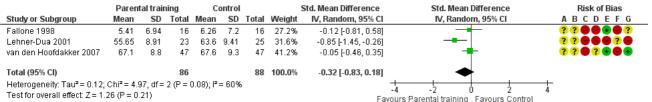
Forest plot of comparison: 1 Forældretræning vs. Kontrol, outcome: 1.5 Adfærdsforstyrrelser, forældrebedømt, mean SD.

Figure 7 (Analysis 1.7)



Forest plot of comparison: 1 Forældretræning vs. Kontrol, outcome: 1.7 Adfærdsforstyrrelser, lærerbedømt, mean SD.

Figure 8 (Analysis 1.9)

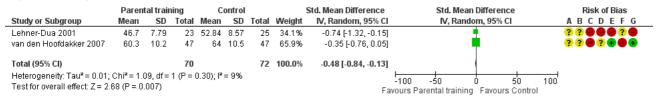


Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

Forest plot of comparison: 1 Forældretræning vs. Kontrol, outcome: 1.9 Eksternaliserende symptomer, forældrebedømt, mean SD.

Figure 9 (Analysis 1.10)

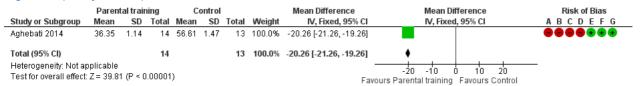


Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
 (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

Forest plot of comparison: 1 Forældretræning vs. Kontrol, outcome: 1.10 Internaliserende symptomer, forældrebedømt, mean SD.

Figure 10 (Analysis 1.11)



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

Forest plot of comparison: 1 Forældretræning vs. Kontrol, outcome: 1.11 Eksternaliserende og Internaliserende symptomer, total score (child behavior checklist), forældrebedømt, mean SD.