

Data supplement for Sonuga-Barke et al., Nonpharmacological Interventions for ADHD: Systematic Review and Meta-Analyses of Randomized Controlled Trials of Dietary and Psychological Treatments. Am J Psychiatry (doi: 10.1176/appi.ajp.2012.12070991)

Section 1: Decision flow chart and citations for excluded trials including justification for exclusion of trials. More detailed information about the reasons for the exclusion of specific studies are available from the authors.

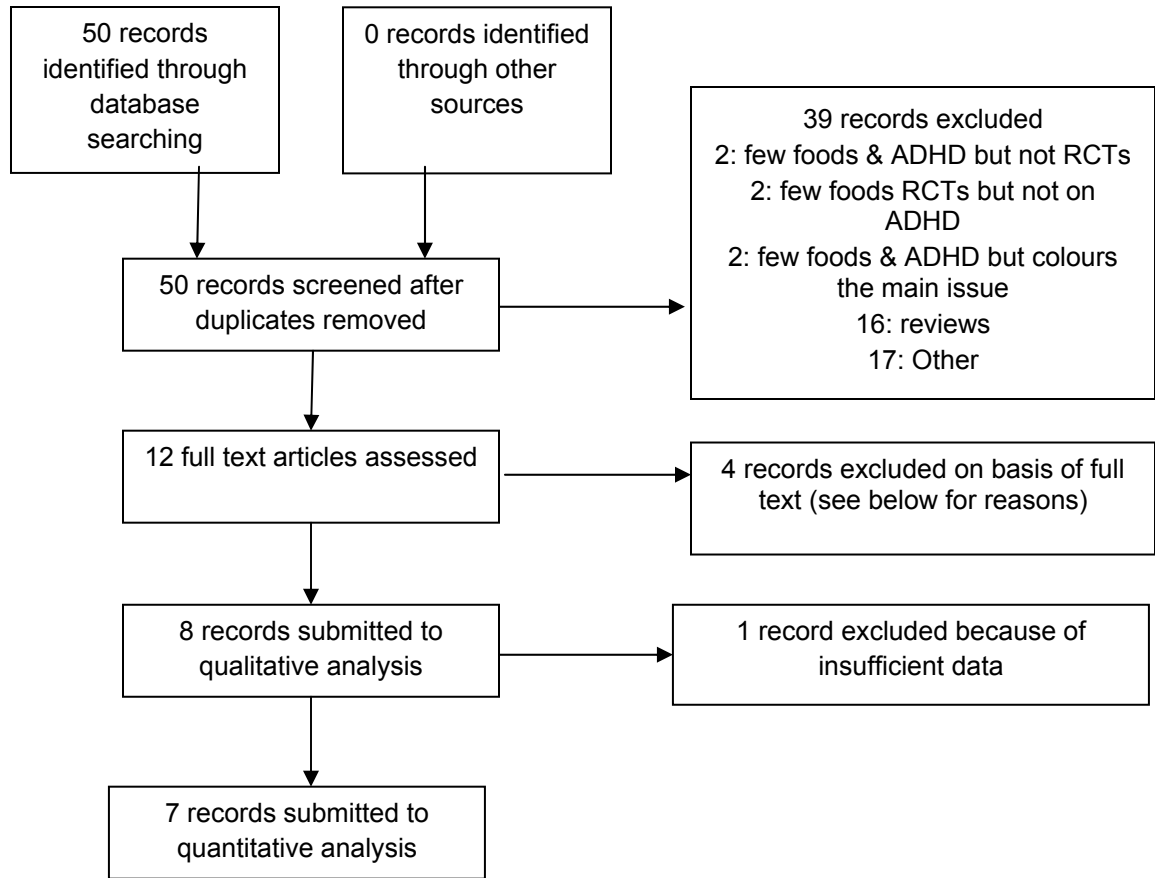
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Section 2: Detailed description of the included trials

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A) RESTRICTED ELIMINATION DIETS

Figure S1. PRISMA flow diagram for selection of studies on Restricted Elimination Diets and ADHD



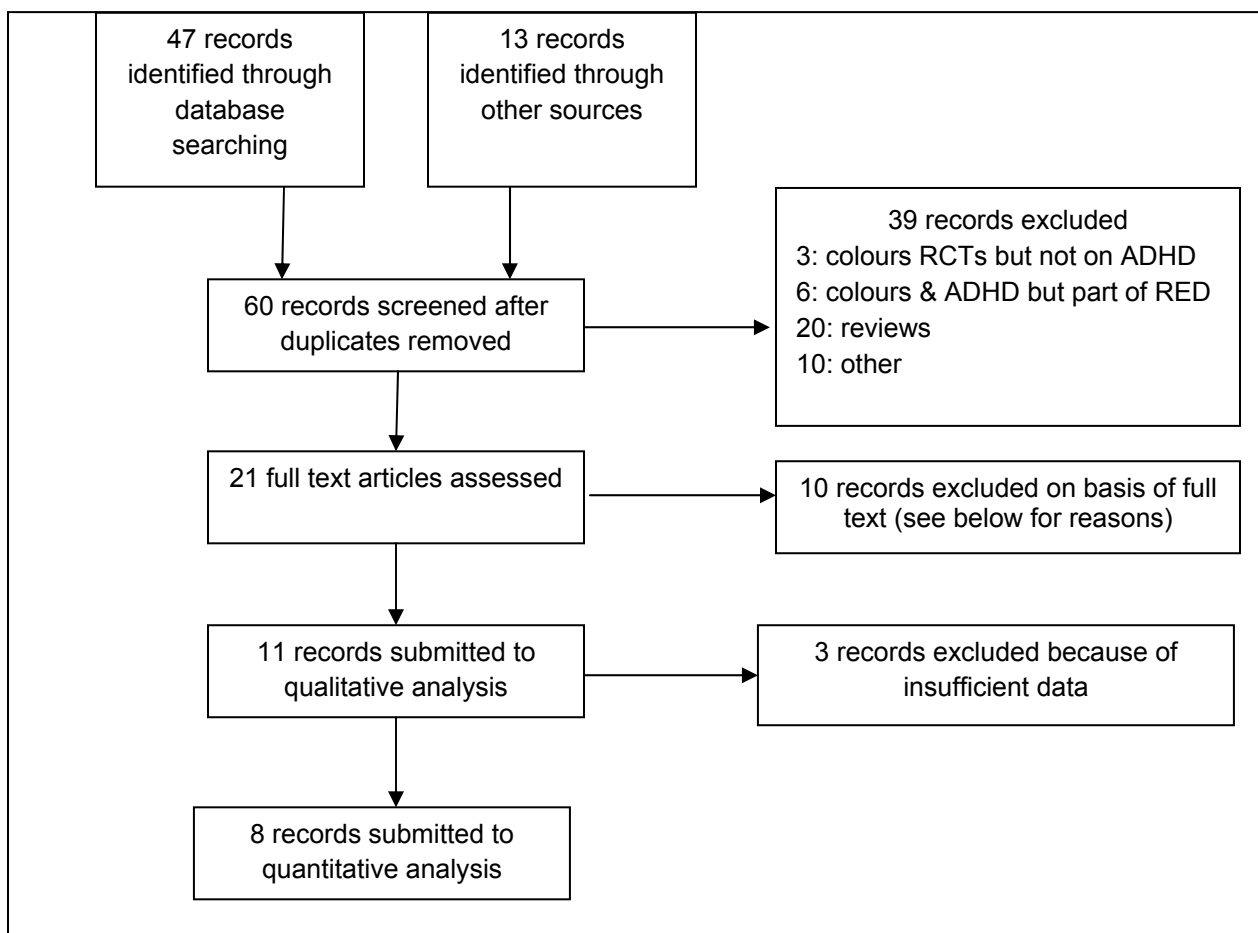
Trials excluded

Trial	References	Reasons for exclusion
Egger (1992a)	Egger, J., A. Stolla, et al. Controlled trial of hyposensitisation in children with food-induced hyperkinetic syndrome. <i>Lancet</i> 1992;199:1150-1153.	Study on RED and ADHD but not an RCT of RED.
Egger (1992b)	Egger, J., C. Carter, et al. Effect of diet treatment on enuresis in children with migraine or hyperkinetic behavior. <i>Clinical Pediatrics</i> 1992; 31(5): 302-307.	Study on RED and ADHD but not meeting inclusion criteria as ADHD behaviour not an outcome.
Pelsser (2010)	Pelsser, L. M., K. Frankena, et al. Effects of food on physical and sleep complaints in children with ADHD: a randomised controlled pilot study. <i>European Journal of Pediatrics</i> 2010 ;169(9): 1129-1138.	Study on RED and ADHD but not meeting inclusion criteria as ADHD behaviour not an outcome.

Rapp (1978)	Rapp, D. J. Does diet affect hyperactivity. <i>Journal of Learning Disabilities</i> 1978;11(6): 383-389.	Study on RED and ADHD but not an RCT.
Schulte-Korne (1996)	Schulte-Korne, G., Deimel, W. et al. The influence of an oligoantigenic diet on the behavior of children with attention-deficit hyperactivity disorders, Der Einfluss einer oligoantigenen Diat auf das Verhalten von hyperkinetischen Kindern. <i>Zeitschrift fur Kinder und Jugendpsychiatrie und Psychotherapie</i> 1996; 24(3): 176-183.	Insufficient details to permit calculation of SMD

B) ARTIFICIAL FOOD COLOUR ELIMINATION

Figure S2. PRISMA flow diagram for selection of studies on Food Colour Elimination and ADHD.



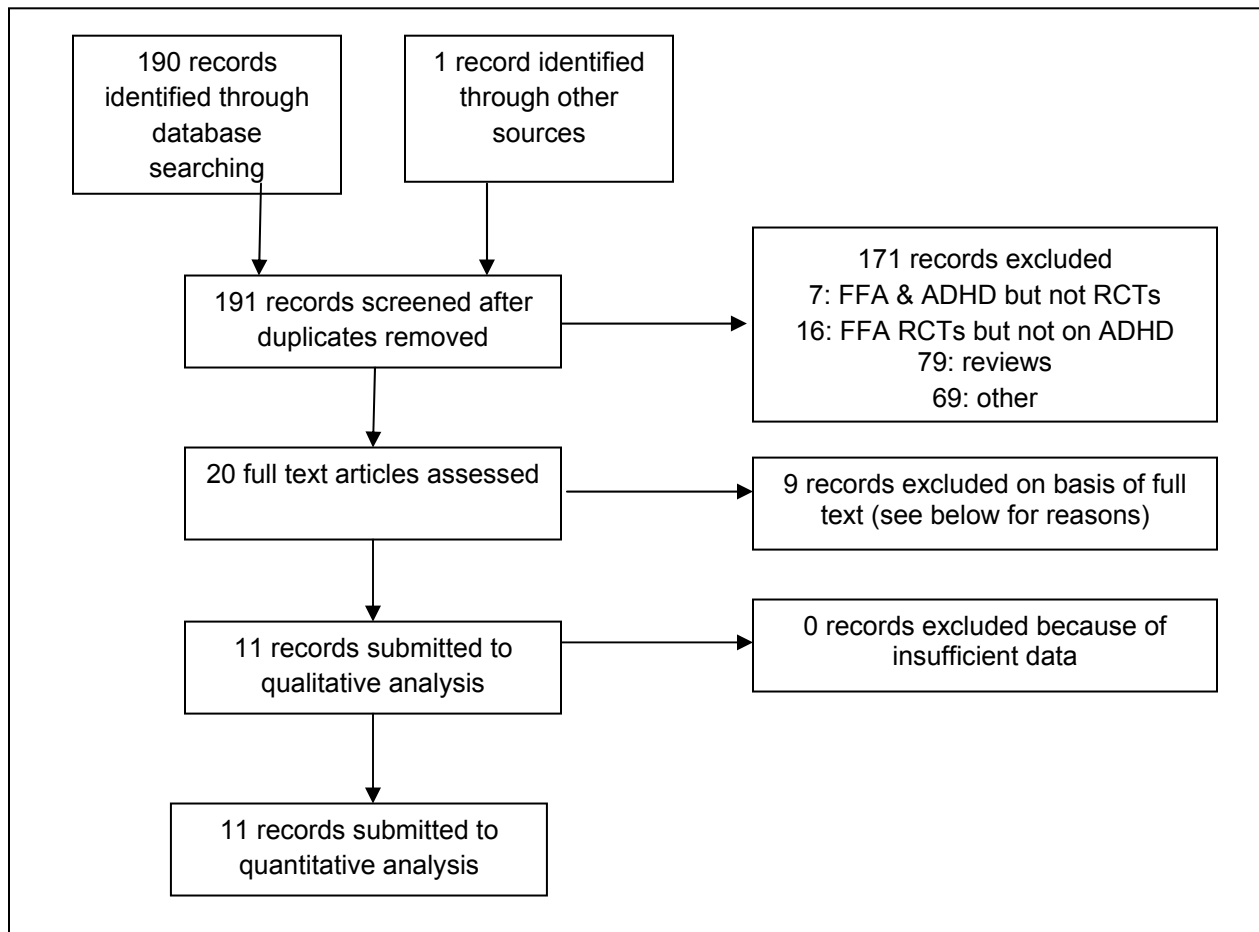
Trials excluded

Study	References	Reasons for exclusion
Conners (1980)	Conners, C.K. (1980) A third challenge trial. In: Food additives and hyperactive children. New York: Plenum Press.	RCT study but not on ADHD participants
David (1987)	David, T. J. Reactions to dietary tartrazine. Archives of Disease in Childhood 1987; 62(2): 119-122.	RCT study but not on ADHD participants
Eich (1979)	Eich, W., E. Thim, et al. Effect of the Feingold Kaiser Permanente diet in minimal brain dysfunction. Journal of the Medical Association of the State of Alabama 1979; 49(4): 16-18.	RCT study but not on ADHD participants
Mattes (1978)	Mattes, J., & Gittelman-Klein, R. Crossover study of artificial food colorings in a hyperkinetic child. American Journal of Psychiatry 1978;135(8): 987-988.	Study on Food colours and ADHD but not meeting inclusion criteria because n=1.
Mattes (1981)	Mattes, J. A. & R. Gittelman "Effects of artificial food colorings in children with hyperactive symptoms. A critical review and	RCT study but not on ADHD participants.

	results of a controlled study." Archives of General Psychiatry 1981; 38(6): 714-718.	
Rapp (1978)	Rapp, D. J. Does diet affect hyperactivity. Journal of Learning Disabilities 1978;11(6): 383-389.	not RCT
Rose (1978)	Rose, T. L. The functional relationship between artificial food colors and hyperactivity." Journal of Applied Behavior Analysis 1978;11(4): 439-446.	no ADHD symptom outcome scores
Rowe (1988)	Rowe, K. Synthetic food colourings and 'hyperactivity': A double-blind crossover study. Australian Paediatric Journal 1988; 24(2): 143-147.	RCT study but not on ADHD participants
Rowe (1994)	Rowe, K. S. & Rowe, K.J. Synthetic food coloring and behavior: a dose response effect in a double-blind, placebo-controlled, repeated-measures study. Journal of Pediatrics 1994; 125: 691-698.	RCT study but not on ADHD participants
Spring (1981)	Spring, C., Vermeersch, J., Blunden, D., & Sterling, H. Case studies of effects of artificial food colors on hyperactivity. Journal of Special Education, 198;15(3): 361-372	RCT study but not on ADHD participants
Levy (1978a),	Levy, F., Dumbrell, S., Hobbes, G., Ryan, M., Wilton, N., & Woodhill, J. M. Hyperkinesis and diet – double-blind crossover trial with a tartrazine challenge. Medical Journal of Australia 1978; 1(2): 61-64.	Insufficient detail in summary statistics to allow calculation of SMD on ADHD outcome.
Saratinos (1990)	Sarantinos, J, Rowe, K.S. & Briggs, D.R. Synthetic food colouring and behavioural change in children with attention deficit disorder: a double blind placebo controlled repeated measures study. Proceedings of the Nutrition Society of Australia 1990; 15: 233.	Insufficient detail in summary statistics to allow calculation of SMD on ADHD outcome.
Swanson (1980)	Swanson, J. M., & Kinsbourne, M. (1980). Food dyes impair performance of hyperactive children on a laboratory learning test. Science 1980; 207(4438): 1485-1487.	Insufficient detail in summary statistics to allow calculation of SMD on ADHD outcome.

C) FREE FATTY ACID SUPPLEMENTS

Figure S3. PRISMA flow diagram of selection of studies on Free Fatty Acid Supplementation and ADHD



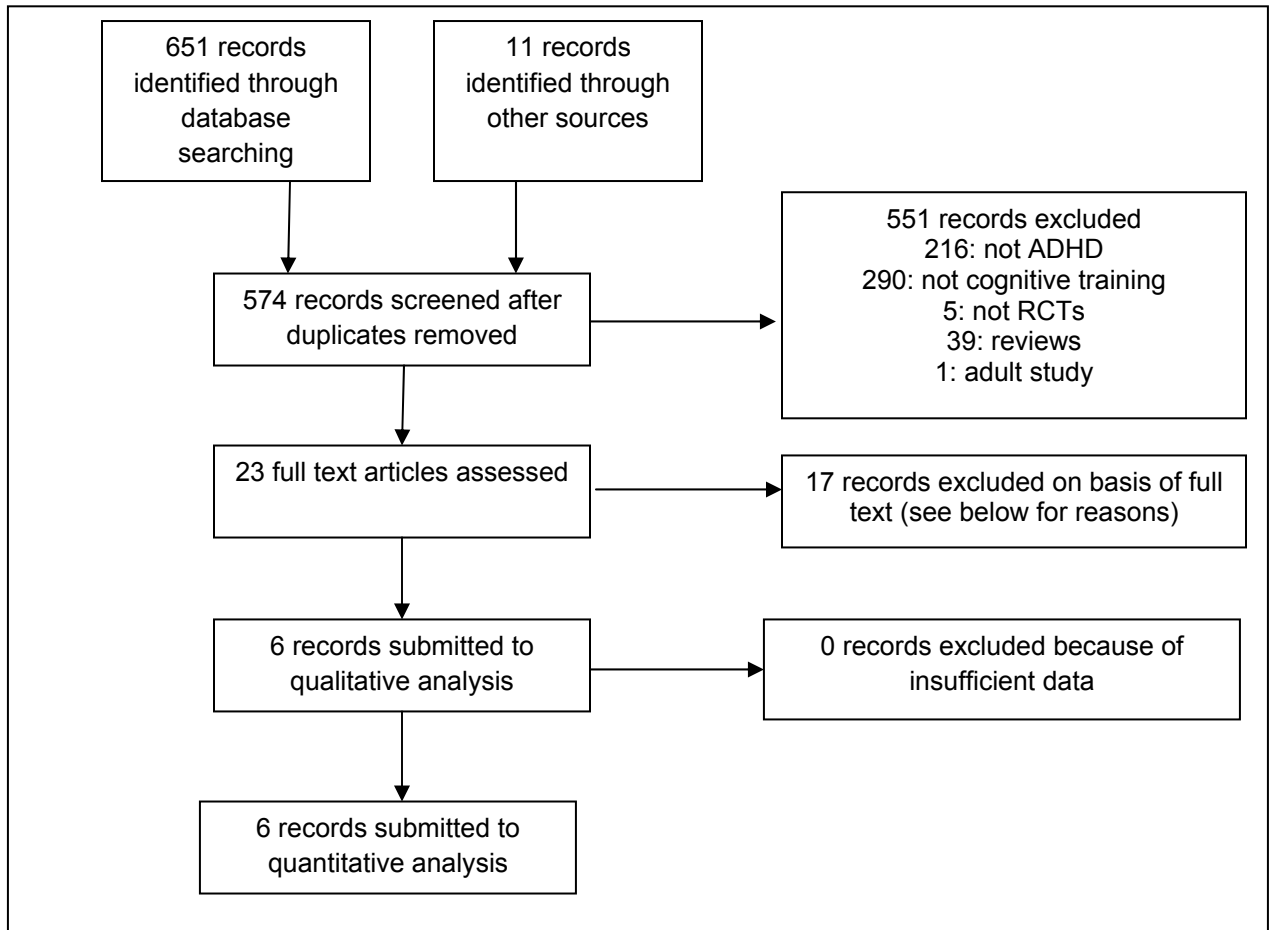
Trials excluded

Trial	References	Reasons for exclusion
Arnold (2007)	Arnold, L. E., Amato, A., Bozzolo, H., et al. Acetyl-L-carnitine in attention-deficit/hyperactivity disorder: A multi-site, placebo-controlled pilot trial. <i>Journal of Child and Adolescent Psychopharmacology</i> 2007;17(6):791-801.	Intervention with Acetyl-L-carnitine to be included in "Other supplements" review.
Arnold (2000)	Arnold, L. E., Pinkham, S. M., & V, N.. Does zinc moderate essential fatty acid and amphetamine treatment of attention-deficit/hyperactivity disorder? <i>Journal of Child and Adolescent Psychopharmacology</i> 2000;10(2):111-7.	Study on FFAs and ADHD but re-analysis of Arnold (1989).
Brue (2001)	Brue, A. W., Oakland, T. D., & Evans, R. A.. The use of a dietary supplement combination and an essential fatty acid as an alternative and complementary treatment for children with attention-deficit/hyperactivity disorder. <i>Scientific Review of</i>	Study on FFAs and ADHD but includes other simultaneous active treatments

	Alternative Medicine 2001;5(4):187-94.	
Germano (2007)	Germano, M., Meleleo, D., Montorfano, G., et al. Plasma, red blood cells phospholipids and clinical evaluation after long chain omega-3 supplementation in children with attention deficit hyperactivity disorder (ADHD). Nutritional Neuroscience 2007;10(1-2):1-9.	Study on FFAs and ADHD but no control condition
Harding (2003)	Harding, K.L, Judah, R.D. &G, C.. Outcome-based comparison of Ritalin versus food-supplement treat children with AD/HD. Alternative Medicine Review 2003;8(319-330).	Study on FFAs and ADHD but ADHD behaviour not an outcome
Joshi (2006)	Joshi, K., Lad, S., Kale, M., et al. Supplementation with flax oil and vitamin C improves the outcome of Attention Deficit Hyperactivity Disorder (ADHD). Prostaglandins Leukotrienes and Essential Fatty Acids 2006;74(1):17-21.	Study on FFAs and ADHD but no control condition
Richardson (2002)	Richardson, A. J., & P, B. K.. A randomized double-blind, placebo-controlled study of the effects of supplementation with highly unsaturated fatty acids on ADHD-related symptoms in children with specific learning difficulties. Progress in Neuro-Psychopharmacology & Biological Psychiatry, 26(2), 233-239. 2002;26(2):233-9.	RCT study on FFAs but not on ADHD participants
Sinn (2007b)	Sinn, N.. Physical fatty acid deficiency signs in children with ADHD symptoms.. Prostaglandins Leukotrienes and Essential Fatty Acids 2007;77(2):109-115.	Study on FFAs and ADHD but re-analysis of Sinn & Bryan (2007)
Sorgi (2007)	Sorgi, P. J., Hallowell, E. M., Hutchins, H. L., et al. Effects of an open-label pilot study with high-dose EPA/DHA concentrates on plasma phospholipids and behavior in children with attention deficit hyperactivity disorder. Nutrition Journal 2007;6:16.	Study on FFAs and ADHD but no control condition

D) COGNITIVE TRAINING

Figure S4. PRISMA flow diagram of selection of studies on Cognitive Training and ADHD



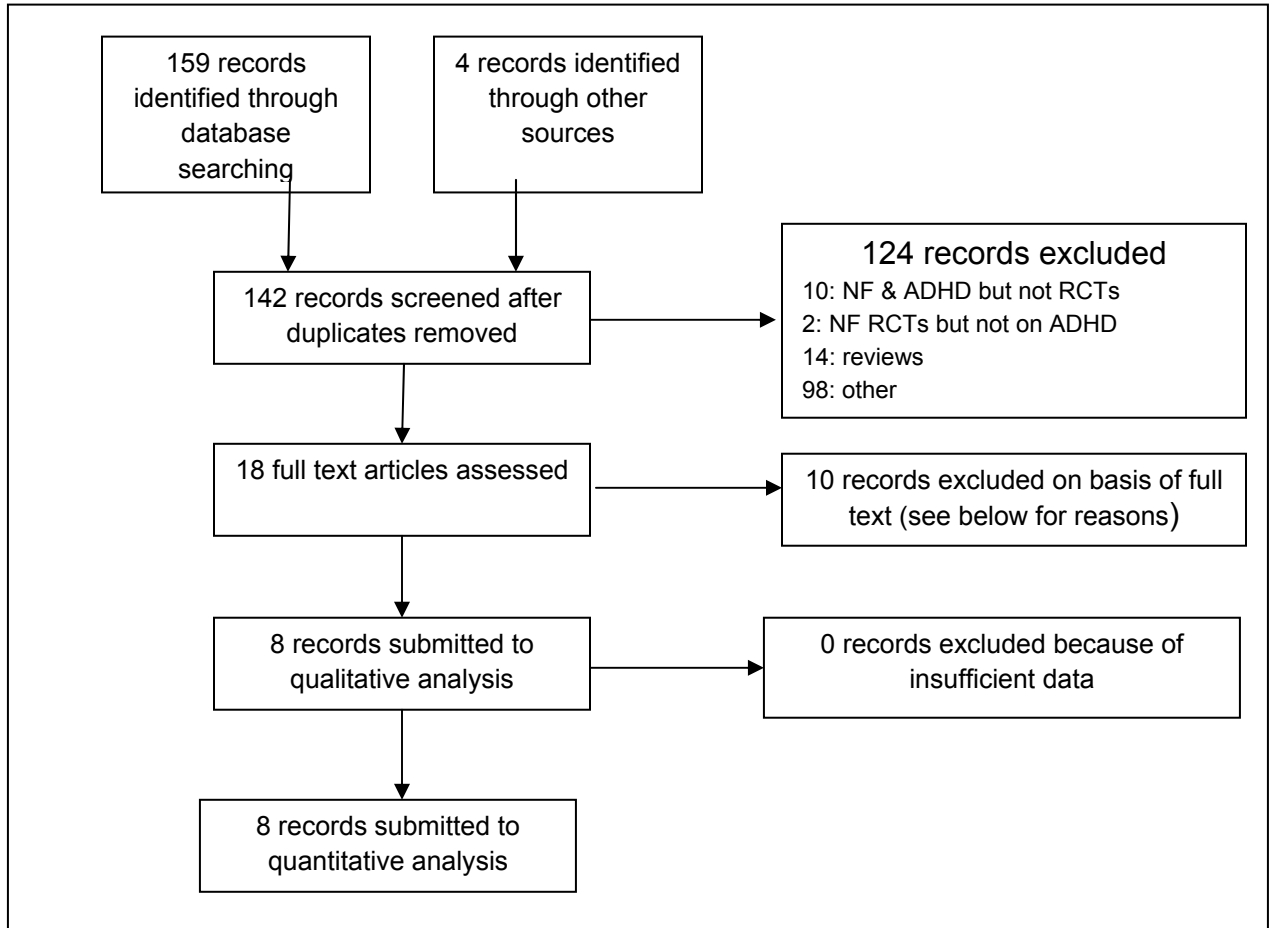
Trials excluded

Study	References	Reasons for exclusion
Abikoff (1985)	Abikoff H, Gittelman R. Hyperactive children treated with stimulants. Is cognitive training a useful adjunct? Arch Gen Psychiatry 1985;42:953-961.	No definition of cognitive training according to meta-analysis protocol.
Beck (2010)	Beck SJ, Hanson CA, Puffenberger SS, Benninger KL, Benninger WB. A controlled trial of working memory training for children and adolescents with ADHD. J Clin Child Adolesc Psychol 2010;39:825-836	No randomised.
Cho (2002)	Cho BH, Ku J, Jang D, Lee J, Oh M, Kim H, Lee J, Kim J, Kim I, Kim S. Clinical test for Attention Enhancement System. Stud Health Technol Inform 2002;85:89-95	No inclusion criteria for participants.
Douglas (1976)	Douglas VI, Parry P, Marton P, Garson C: Assessment of a cognitive training program for hyperactive children. J Abnorm Child Psychol 1976;4:389-410.	No definition of cognitive training according to meta-analysis protocol; not randomised.

Gibson (2011)	Gibson BS, Gondoli DM, Johnson AC, Steeger CM, Dobrzanski BA, Morrissey RA. Component analysis of verbal versus spatial working memory training in adolescents with ADHD: A randomized, controlled trial. <i>Child Neuropsychol</i> 2011;1-18.	Absence of appropriate control arm.
Holmes (2010)	Holmes J, Gathercole S, Place M, Dunning DL, Hilton KA, Elliott JG. Working memory deficits can be overcome: impacts of training and medication on working memory in children with ADHD; 2010, 827-836.	Not controlled.
Kerns (1999)	Kerns KA, Eso K, Thomson J. Investigation of a direct intervention for improving attention in young children with ADHD; 1999, 273-295.	Not randomised.
Klingberg (2002)	Klingberg T, Forssberg H, Westerberg H. Training of working memory in children with ADHD. <i>J Clin Exp Neuropsychol</i> 2002;24:781-791.	No ADHD outcome.
Kray (2011)	Kray J, Karbach J, Haenig S, Freitag C. Can task-switching training enhance executive control functioning in children with attention deficit/hyperactivity disorder. <i>Front Hum Neurosci</i> 2011; 5; 180	No ADHD outcome
Lloyd (2010)	Lloyd A, Brett D, Wesnes K. Coherence training in children with attention-deficit hyperactivity disorder: cognitive functions and behavioral changes. <i>Altern Ther Health Med</i> 2010;16:34-42.	No definition of cognitive training according to meta-analysis protocol.
Mezzacappa (2010)	Mezzacappa E, Buckner JC. Working memory training for children with attention problems or hyperactivity: a school-based pilot study; 2010; 202-208.	Not controlled.
Moore (1978)	Moore SF, Cole SD. Cognitive self-mediation training with hyperkinetic children. <i>Bull Psychon Soc</i> 1978; 18-20	No definition of cognitive training according to meta-analysis protocol.
O'Connell (2006)	O'Connell RG, Bellgrove MA, Dockree PM, Robertson IH. Cognitive remediation in ADHD: effects of periodic non-contingent alerts on sustained attention to response. <i>Neuropsychol Rehabil</i> 2006;16:653-665.	Not randomised.
Papazian (2009)	Papazian O, Alfonso I, Luzondo RJ, Araguez N. Training of executive function in preschool children with combined attention deficit hyperactivity disorder: a prospective, controlled and randomized trial. <i>Rev Neurol</i> 2009;48 Suppl 2:S119-S122.	No usable outcome at T1.
Rappoport (1996)	Rappoport MD, Loo S, Isaacs P, Goya S, Denney C, Scanlan S. Methylphenidate and attentional training. Comparative effects on behavior and neurocognitive performance in twin girls with attention-deficit/hyperactivity disorder. <i>Behav Modif</i> 1996;20:428-430.	Case report.
Semrud-Clikeman (1999)	Semrud-Clikeman M, Nielsen KH, Clinton A, Sylvester L, Parle N, Connor RT. An intervention approach for children with teacher- and parent-identified attentional difficulties. <i>J Learn Disabil</i> 1999;32:581-590.	No ADHD outcomes, not randomised.
Tucha	Tucha O, Tucha L, Kaumann G, Konig S, Lange KM, Stasik D, Streather Z, Engelschalk T, Lange KW. Training of attention functions in children with attention deficit hyperactivity disorder. <i>Atten Defic Hyperact Disord</i> 2011;3:271-283.	No appropriate control.

E) NEUROFEEDBACK

Figure S5. PRISMA Flow diagram of selection of studies on Neurofeedback and ADHD



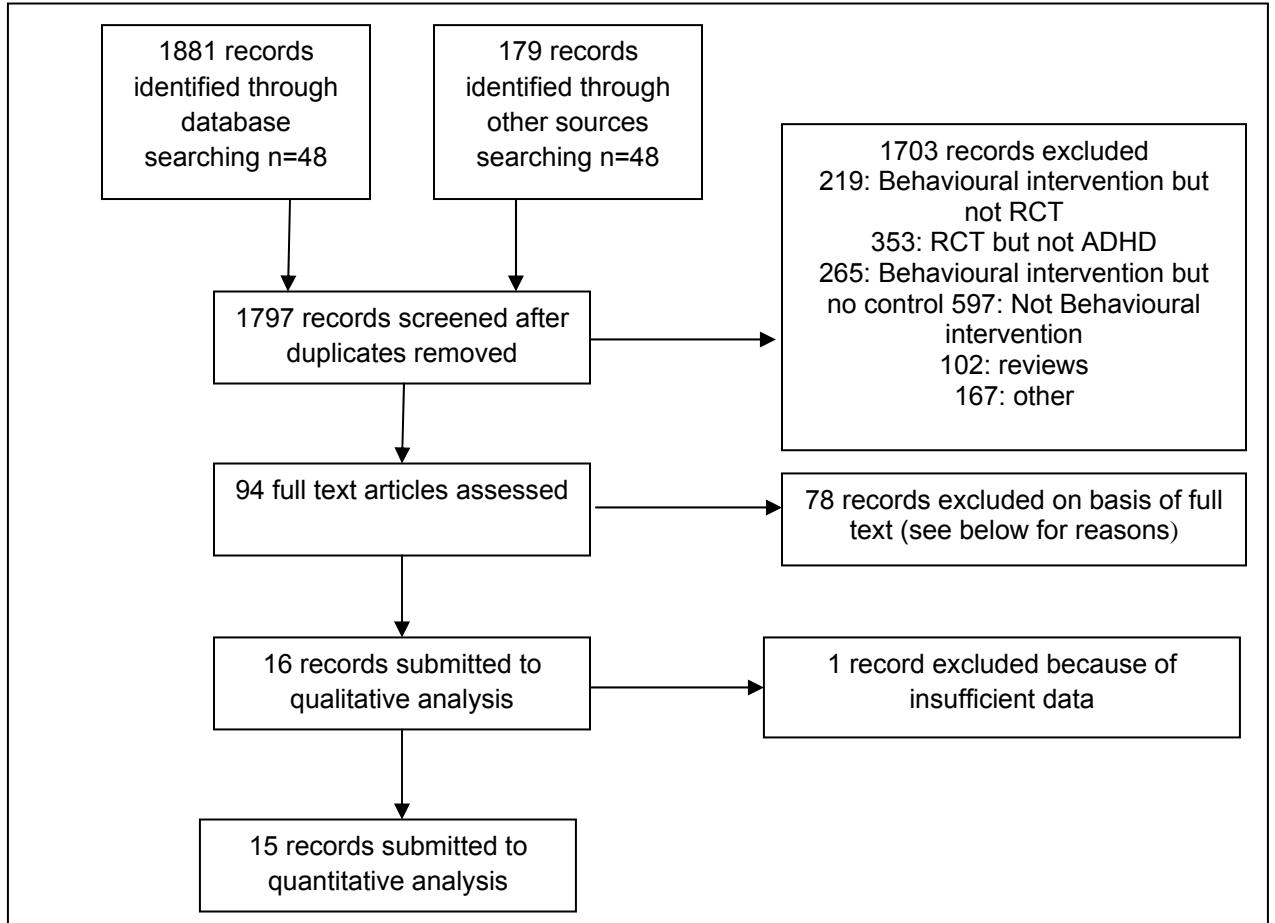
Trials excluded

Study	References	Reasons for exclusion
Doehnert (2008)	Doehnert M, Brandeis D, Straub M, Steinhausen H-C, and Drechsler R. (2008). "Slow cortical potential neurofeedback in attention deficit hyperactivity disorder: is there neurophysiological evidence for specific effects?" J Neural Transm 115: 1445-1456.	only partial randomisation.
Drechsler (2007)	Drechsler R, Straub M, Doehnert M, Heinrich H, Steinhausen HC, and Brandeis D (2007). „Controlled evaluation of a neurofeedback training of slow cortical potentials in children with Attention Deficit/Hyperactivity Disorder (ADHD).” Behav Brain Funct 3: 35.	Same study as Doehnert (2008); see above
Gevensleben (2009)	Gevensleben, H., B. Holl, et al. (2009). "Distinct EEG effects related to neurofeedback training in children with ADHD: A randomized controlled trial." International Journal of Psychophysiology 74(2): 149-157.	Secondary analysis of included trial (Gevensleben, H., B. Holl, et al. JCPP 2009).
Gevensleben (2010)	Gevensleben, H., B. Holl, et al. (2010). "Neurofeedback training in children with ADHD: 6-month follow-up of a	Secondary analysis of included trial

	randomised controlled trial." <i>European Child and Adolescent Psychiatry</i> 19(9): 715-724.	(Gevensleben, H., B. Holl, et al. JCPP 2009).
Heywood (2003)	Heywood, C. and I. Beale (2003). "EEG biofeedback vs. placebo treatment for attention-deficit/hyperactivity disorder: a pilot study." <i>J Atten Disord</i> 7(1): 43-55.	Case series with n=5 analyzed pre vs post.
Levesque (2006)	Levesque, J., M. Beauregard, et al. (2006). "Effect of neurofeedback training on the neural substrates of selective attention in children with attention-deficit/hyperactivity disorder: a functional magnetic resonance imaging study." <i>Neurosci Lett</i> 394(3): 216-221.	Secondary analysis of included trial (Beauregard & Levesque 2006).
Perreau-Linck (2010)	Perreau-Linck, E., N. Lessard, et al. (2010). "Effects of neurofeedback training on inhibitory capacities in ADHD children: A single-blind, randomized, placebo-controlled study." <i>Journal of Neurotherapy</i> 14(3): 229-242.	Case series, no group statistics provided.
Strehl (2004)	Strehl, U. et al. (2004). "EEG feedback for children with attention-deficit/hyperactivity disorder (ADHD). Preliminary results from a randomized, controlled study." <i>Kindheit und Entwicklung</i> 13(3): 180-189	No control group; compared two different Neurofeedback protocols.
Strehl (2006)	Strehl, U. et al. (2006). "Self-regulation of slow cortical potentials: A new treatment for children with attention-deficit/hyperactivity disorder." <i>Pediatrics</i> 118(5): E1530-E1540.	Same study as Strehl (2004); see above
Wangler (2011)	Wangler, S., H. Gevensleben, et al. (2010). "Neurofeedback in children with ADHD: Specific event-related potential findings of a randomized controlled trial." <i>Clin Neurophysiol</i> 122(5):942-50.	Secondary analysis of included trial (Gevensleben, H., B. Holl, et al. JCPP 2009).

F) BEHAVIOURAL INTERVENTIONS

Figure S6. PRISMA flow diagram of selection of trials on behavioural interventions and ADHD.



Trials excluded

Trial	References	Reasons for exclusion
Abikoff (1985)	Abikoff, H. & Gittelman, R. Hyperactive children treated with stimulants: Is cognitive training a useful adjunct? <i>Archives of General Psychiatry</i> 1985; 42, 953 – 961.	No appropriate control.
Abikoff (2004)	Abikoff, H., Hechtman, L., Klein, R.G., Weiss, G., Fleiss, K., Etcovitch, J., Cousins, L., Greenfield, B., Martin, D., Pollack, S. Symptomatic improvement in children with ADHD treated with long-term methylphenidate and multimodal psychosocial treatment. <i>Journal of The American Academy of Child and adolescent Psychiatry</i> 2004;43(7):802-11.	No appropriate control.
Abikoff (2004a)	Abikoff, H., Hechtman, L., Klein, R.G., Gallagher, R., Fleiss, K., Etcovitch, J., Cousins, L., Greenfield, B., Martin, D., Pollack, S. Social functioning in children with ADHD treated with long-term methylphenidate and multimodal psychosocial	No appropriate control. No ADHD outcomes.

	treatment. <i>Journal of The American Academy of Child and Adolescent Psychiatry</i> 2004;43(7):820-9.	
Anastopolos (1993)	Anastopoulos, A.D., Shelton, T.L., DuPaul, G.J., Guevremont, D.C. Parent training for attention-deficit hyperactivity disorder: its impact on parent functioning. <i>Journal of Abnormal Child Psychology</i> 1993;21(5):581-96.	Not randomised.
Antshel (2003)	Antshel, K.M., Remer, R. Social skills training in children with Attention Deficit Hyperactivity disorder: a randomized-controlled clinical trial. <i>Journal of Clinical Child and Adolescent Psychiatry</i> 2003; 1, 153-165	No ADHD outcomes.
Barkley (1980)	Barkley, R.A., Copeland, A.P. & Sivage, C. A self-control classroom for hyperactive children. <i>Journal of Autism and Developmental Disorders</i> . 1980; 10(1),75-89.	Not randomised. No appropriate control
Barkley (1992)	Barkley, R.A., Guevremont, D.C., Anastopoulos, A.D., Fletcher, K.F. A comparison of three family therapy programs for treating family conflicts in adolescents with Attention-Deficit Hyperactivity Disorder. <i>Journal of Consulting and Clinical Psychology</i> 1992; 60 (3), 450-462	No appropriate control.
Barkley (1996)	Barkley, R.A., Terri, L., Shelton, T.L, Crosswait, C., Moorehouse, M., Fletcher, K.F., Barrett, S., Jenkins, L., Metevia, L. (1996). Preliminary findings of an early intervention programme with aggressive hyperactive children. <i>Annals New York Academy of Science</i> ,794, 277 – 287.	Not fully randomised.
Barkley (2000)	Barkley, R.A., Terri, L., Shelton, T.L, Crosswait, C., Moorehouse, M., Fletcher, K.F., Barrett, S., Jenkins, L., Metevia, L. Multi-method Psycho-educational Intervention for Pre-school children with disruptive behaviour: preliminary results at post treatment. <i>Journal of Child Psychology and Psychiatry</i> 2000; 41(3) 319-332	Violation of randomisation in 8 children.
Barkley (2001)	Barkley, R.A., Edwards, G., Laneri, M., Fletcher, K., Metevia, L. The efficacy of problem-solving communication training alone, behavior management training alone, and their combination for parent-adolescent conflict in teenagers with ADHD and ODD. <i>Journal of Consulting and Clinical Psychology</i> 2001;69(6):926-41	No appropriate control.
Carlson (1992)	Carlson, C.L., Pelham, W.E. Jr., Milich, R., Dixon, J. Single and combined effects of methylphenidate and behavior therapy on the classroom performance of children with attention-deficit hyperactivity disorder. <i>Journal of Abnormal Child Psychology</i> 1992;20(2):213-32	No appropriate control.
Christensen (1973)	Christensen, D.E., Sprague, R.L. Reduction of hyperactive behavior by conditioning procedures alone and combined with methylphenidate (Ritalin). <i>Behaviour Research and Therapy</i> 1973;11(3):331-4.	Not randomised. No ADHD outcome.
Chronis (2004)	Chronis, A.M., Fabiano, G.A., Gnagy, E.M., Onyango, A.N., Pelham, W.E., Lopez-williams, A., Chacko, A., Wymbs, B.T., Coles, E.K., Seymour, K.E. An evaluation of the summer treatment programme for children with Attention Deficit/Hyperactivity Disorder using a treatment withdrawal design. <i>Behavior Therapy</i> 2004; 35, 561 – 585.	Within subjects design, not possible to identify the unique effects of the behavioural intervention alone.
Cohen (1981)	Cohen, N.J., Sullivan, J., Minde, K., Novak, C., Helwig, C. Evaluation of the relative effectiveness of methylphenidate and cognitive behavior modification in the treatment of kindergarten-aged hyperactive children. <i>Journal of Abnormal</i>	Not randomised .

	<i>Child Psychology</i> 1981;9(1):43-54.	
Cunningham (1995)	Cunningham, C.E., Bremner, R. & Boyle, R. (1995). Large group community based parenting programmes for families of preschoolers at risk for disruptive behaviour disorders: Utilization, cost effectiveness and outcomes. <i>Journal of Child Psychology and Psychiatry</i> , 36 (7), 1141 – 1159.	Not an ADHD sample.
Dubey (1983)	Dubey, D.R., O’Leary, S.G. Training parents of hyperactive children in child management: A comparative outcome study. <i>Journal of Abnormal Child Psychology</i> 1983; 11 (2), 229-246	Randomisation unclear.
Evans (2005)	Evans, S.W., Langberg, J., Raggi, V., Allen, J., Buvinger, E.C. Development of a School-Based Treatment Program for Middle School Youth With ADHD. <i>Journal of Attention Disorders</i> , 2005; 9, 343-353.	Not randomised
Evans (2007)	Evans, S.W., Serpell, Z.N., Schultz, B.K., Pastor, D.A. Cumulative Benefits of Secondary School-Based Treatment of Students With Attention Deficit Hyperactivity Disorder. <i>School Psychology Review</i> 2007; 36, 256 – 273.	Randomisation compromised
Fabiano (2004)	Fabiano, G.A., Pelham, W.E., Manus, M.J., Gnagy, E.M., Chronis, A.M., Onyango, A., Lopez-williams, A., Burrows-Maclean, L., Coles, E.K., Meichenbaum, D.L., Caserita, D.A., Swain, S. An Evaluation of Three Time-Out Procedures for Children With Attention-Deficit/Hyperactivity Disorder, <i>Behavior Therapy</i> 2004; 35, 449 – 469.	No appropriate control. No ADHD outcome
Fabiano (2007)	Fabiano, G.A., Pelham, W.E., Gnagy, E.M., Burrows-Maclean, L., Coles, E.K., Chacko, A., Wymbs, B.T., Walker, K.S., Arnold, F., Garefino, A., Keenan, J.K., Onyango, A.N., Hoffman, M.T., Massetti, G.M., Robbs, J.A. (2007). The Single and Combined Effects of Multiple Intensities of Behavior Modification and Methylphenidate for Children With Attention Deficit Hyperactivity Disorder in a Classroom Setting. <i>School Psychology Review</i> 2007; 26, 195 – 216.	Not randomised. No appropriate control
Fabiano (2009)	Fabiano, G.A., Chacko, A., Pelham, W.E., Robb, J., Walker, K.S., Wymbs, F., Sastry, A.L., Flammer, L., Keenan, J.K., Visweswaraiyah, H., Shulman, S., Herbst, L., Pirvics, L. (2009). A Comparison of Behavioral Parent Training Programs for Fathers of Children With Attention-Deficit/Hyperactivity Disorder, <i>Behavior Therapy</i> 2009; 40, 190 – 204.	No appropriate control
Firestone (1981)	Firestone, P., Kelly, M.J., Goodman, J.T., & Davey, J. Differential effects of parent training and stimulant medication with hyperactives: A progress report. <i>Journal of the American Academy of Child and American Psychiatry</i> 1981;20(1):135-47.	No appropriate control.
Firestone (1986)	Firestone, P., Crowe, D., Goodman, J.T. & McGrath.P. Vicissitudes of follow up studies: Differential effects of Parent training and stimulant medication with hyperactives. <i>American Journal of Orthopsychiatry</i> 1986; 56 (2) 184 – 194	No appropriate control. Follow-up of an excluded study.
Frankel (1997)	Frankel, F., Myatt, R., Cantwell, D.P., Feinberg, D.T. Parent-assisted transfer of children’s social skills training: effects on	Children with and without ADHD in one

	children with and without attention-deficit hyperactivity disorder. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> 1997;36(8):1056-64.	sample.
Hechtman (2004a)	Hechtman, L., Abikoff, H., Klein, R.G., Weiss, G., Respitz, C., Kouri, J., Blum, C., Greenfield, B., Etcovitch, J., Fleiss, K., Pollack, S. Academic achievement and emotional status of children with ADHD treated with long-term methylphenidate and multimodal psychosocial treatment. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> 2004; 43(7):812-819.	No appropriate control. No ADHD outcome.
Hechtman (2004b)	Hechtman, L., Abikoff, H., Klein, R.G., Greenfield, B., Etcovitch, J., Cousins, L., Fleiss, K., Weiss, M., Pollack, S. Children with ADHD treated with long-term methylphenidate and multimodal psychosocial treatment: impact on parental practices. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> 2004; 43(7):830-838	No appropriate control. No ADHD outcome.
Hinshaw (1984a)	Hinshaw, S.P., Henker, B. & Whalen, C. Self control in hyperactive boys in anger inducing situations: Effects of cognitive-behavioral training and of methylphenidate. <i>Journal of Abnormal Child Psychology</i> 1984; 12 (1) 55 – 77.	No appropriate control.
Hinshaw (1984b)	Hinshaw, S.P., Henker, B. & Whalen, C. Cognitive-behavioral and pharmacologic interventions for hyperactive boys: Comparative and combined effects. <i>Journal of Consulting and Clinical Psychology</i> 1984; 52 (5) 739 – 749.	No ADHD outcome.
Horn (1987)	Horn, W.F., Ialongo, N., Popovich, S., Peradotto, D. Behavioral parent training and cognitive-behavioral self-control therapy with ADD-H children: Comparative and combined effects. <i>Journal of Clinical Child Psychology</i> 1987; 16(1): 57-68	No appropriate control.
Horn (1990)	Horn, W.F., Ialongo, N., Greenberg, G., Packard, T. Additive effects of 15behavioural parent training and self-control therapy with attention deficit hyperactivity disorder children. <i>Journal of Clinical Child Psychology</i> 1990; 19(2); 98-110.	No appropriate control.
Hupp (2002)	Hupp, S.D.A., Reitman, D., Northup, J., O'Callaghan, P., LeBlanc, M. The Effects of Delayed Rewards, Tokens, and Stimulant Medication on Sportsmanlike Behavior with ADHD-diagnosed children. <i>Behavior Modification</i> 2002; 26, 148-162.	Case Studies
Ialongo (1993)	Ialongo, N.S., Horn, W.F., Pascoe, J.M., Greenberg, G., Packard, T., Lopez, M., Wagner, A., Puttler, L. The effects of a multimodal intervention with attention-deficit hyperactivity disorder children: a 9-month follow-up. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> 1993; 32 (1): 182-9.	Same dataset as Horn et al 1991.
Kapalka (2005)	Kapalka, G.M. Avoiding repetitions reduces ADHD children's management problems in the 15behaviour. <i>Emotional and Behavioural Difficulties</i> 2005;10 (4): 269-279.	No ADHD outcome.
Klein (1997)	Klein, R.G., Abikoff, H. Behavior therapy and methylphenidate in treatment of children with ADHD. <i>Journal of Attention Disorders</i> 1997; 2(2), 89-114	No appropriate control.
Klein (2004)	Klein, R.G., Abikoff, H., Hechtman, L., Weiss, G. Design and rationale of controlled study of long-term methylphenidate and multimodal psychosocial treatment in children with ADHD. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> 2004; 43(7):812-819.	No data/study protocol

	<i>Adolescent Psychiatry</i> 2004;43(7):792-801	
Kolko (1999)	Kolko, D.J., Bukstein, O.G., Barron, J.C. Methylphenidate and behavior modification in children With ADHD and comorbid ODD or CD: Main and incremental effects across settings. <i>Journal of The American Academy of Child and Adolescent Psychiatry</i> 1999; 38, 578 – 586.	Not randomised, not possible to identify the unique effects of the behavioural intervention alone.
McNeil (1991)	McNeil, C.B., Eyberg, S., Eisenstadt, T.H., Newcomb, K. & Funderburk, B. Parent-child interaction therapy with behaviour problem children: Generalization of treatment effects to the school setting. <i>Journal of Clinical Child Psychology</i> 1991;20 (2) 140 – 151.	Not an ADHD sample.
Mikami (2010)	Mikami, A.Y., Lerner, M.D., Griggs, M.S., McGrath, A., Calhoun, C.D. Parental influence on children with attention-deficit/hyperactivity disorder: II. Results of a pilot intervention training parents as friendship coaches for children. <i>Journal of Abnormal Child Psychology</i> 2010;38(6):737-49.	No ADHD outcome.
Miranda (2002)	Miranda, A., Presentación, M.J., Soriano, M. Effectiveness of a school-based multicomponent program for the treatment of children with ADHD. <i>Journal of Learning Disabilities</i> 2002;35(6):546-62.	Not fully randomised.
Molina (2008)	Molina, B.S., Flory, K., Bukstein, O.G., Greiner, A.R., Baker, J.L., Krug, V., Evans, S.W. Feasibility and preliminary efficacy of an after-school program for middle schoolers with ADHD: A randomized trial in a large public middle school. <i>Journal of Attention Disorders</i> 2008;12(3):207-17.	No ADHD outcome.
O,Callaghan (2003)	O’Callaghan, P.M., Reitman, D., Northup, J., Hupp, S.D.A, Murphy, M.A. Promoting Social Skills Generalization With ADHD-Diagnosed Children in a Sports Setting, <i>Behavior Therapy</i> 2003; 34, 313 – 330.	Not randomised No appropriate control
Odom (1996)	Odom, S.E. Effects of an educational intervention on mothers of male children with attention deficit hyperactivity disorder. <i>Journal of Community Health Nursing</i> 1996; 13 (4): 207-220.	No ADHD outcome.
O’Leary (1976)	O’Leary KD, Pelham, WE, Rosenbaum A, & Price GH.). Behavioral Treatment of Hyperkinetic Children. <i>Clinical Pediatrics</i> 1976; 15: 510 – 515	Insufficient detail in summary statistics to allow calculation of SMD on ADHD outcome.
Owens (2005)	Owens, J.S., Richerson, L., Beilstein, E.A., Crane, A., Murphy, C.E., Vancouver, J.B. School-Based Mental Health Programming for Children With Inattentive and Disruptive Behavior Problems: First-Year Treatment Outcome. <i>Journal of Attention Disorders</i> 2005; 9, 261-274.	Children with and without ADHD in one sample
Papazian (2009)	Papazian, O., Alfonso, I., Luzondo, R.J., & Aranguéz, N. Training of executive function in preschool children with combined attention deficit hyperactivity disorder: A prospective, controlled and randomized trial_ <i>Revista de Neurologia</i> 2009; 48(Supl 2):S119-S122	Does not meet treatment definition.
Pariseau (2010)	Pariseau, M.E., Fabiano, G., Massetti, G.M., Hart, K.C. & Pelham, W.E. Extended time on academic assignments: Does increased time lead to improved performance for children with ADHD? <i>School Psychology Quarterly</i> 2010; 25 (4): 236 – 248	No appropriate control. No ADHD outcome. Does not meet treatment definition.
Pelham (1977)	Pelham, W.E. Withdrawl of a stimulant drug and concurrent Behavioural intervention in the treatment of a hyperactive	Case study.

	child. <i>Behavior Therapy</i> 1977; 8: 473 – 479.	
Pelham (1980)	Pelham, W.E., Schnedler, R.W., Bologna, N.C., Contreras, A. Behavior and stimulant treatment of hyperactive children: A therapy study with Methylphenidate probes in a within-subject design. <i>Journal of Applied Behavior Analysis</i> 1980; 13, 221-236.	Not randomised No appropriate control
Pelham (1993)	Pelham, W.E. Jr., Carlson, C., Sams, S.E., Vallano, G., Dixon, M.J., Hoza, B. Separate and combined effects of methylphenidate and 17ehaviour modification on boys with attention deficit-hyperactivity disorder in the classroom. <i>Journal of Consulting and Clinical Psychology</i> 1993; 61 (3): 506-15.	No appropriate control.
Pelham (1999a)	Pelham W.E. The NIMH Multimodal Treatment Study for Attention-Deficit Hyperactivity Disorder: Just say yes to drugs alone? <i>Canadian Journal of Psychiatry</i> 1999; 44 (10): 981-990.	No data. Review.
Pelham (1999b)	Pelham, W.E., Gnagy, E.M. Psychosocial and combined treatments for ADHD. <i>Mental Retardation and Developmental Disabilities Research Reviews</i> 1999; 5 (3): 225-236.	No data. Review.
Pelham (2000)	Pelham, W.E., Gnagy, E.M., Greiner, A.R., Hoza, B., Hinshaw, S.P., Swanson, J.M., Simpson, S., Shapiro, C., Bukstein, O., Baron-Myak, C., McBurnett, K. Behavioral versus 17ehavioural and pharmacological treatment in ADHD children attending a summer treatment program. <i>Journal of Abnormal Child Psychology</i> 2000; 28(6):507-25.	No appropriate control. Same sample as MTA cooperative group (1999).
Pelham (2005)	Pelham, W.E., Burrows-Maclean, L., Gnagy, E.M., Fabiano, G.A., Coles, E.K., Tresco, K.E., Chacko, A., Wymbs, B.T., Wienke, A.L., Walker, K.S., Hoffman, M.T. Transdermal Methylphenidate, Behavioral, and Combined Treatment for Children With ADHD. <i>Experimental and Clinical Psychopharmacology</i> 2005; 13, 111 – 126.	No appropriate control
Pfeiffer (2008)	Pfeiffer, B., Henry, A., Miller, S., Witherell, S. Effectiveness of Disc 'O' Sit cushions on attention to task in second-grade students with attention difficulties. <i>American Journal of Occupational Therapy</i> 2008;62(3):274-81.	Not an ADHD sample. Does not meet treatment definition.
Pfiffner (1997)	Pfiffner, L.J., McBurnett, K. Social skills training with parent generalization: treatment effects for children with attention deficit disorder. <i>Journal of Consulting and Clinical Psychology</i> 1997;65(5):749-57	No ADHD outcome.
Pisterman (1989)	Pisterman S, McGrath P, Firestone P, Goodman JT, Webster I, Mallory R. Outcome of parent-mediated treatment of preschoolers with attention deficit disorder with hyperactivity. <i>Journal of Consulting and Clinical Psychology</i> 1989;57(5):628-35.	No ADHD outcome reported.
Presentacion (2010)	Presentacion Herrero, M. J., Siegenthaler Hierro, R., Jara Jimenez, P., Miranda Casas A. Psychosocial intervention follow-up in children with ADHD: Effects on academic, emotional and social functioning. <i>Psicothema</i> 2010; 22 (4): 778-783	Not fully randomised.
Rapport (1980)	Rapport, M.D., Murphy, H.A., Bailey, J.S. Ritalin vs. Response cost in the control of hyperactive children: a within-subject comparison. <i>Journal of Applied Behavior Analysis</i>	Case studies

	1982;15(2):205-16.	
Robinson (1981)	Robinson, P.W., Newby, T.J., Ganzell, S.L. A token system for a class of underachieving hyperactive children. <i>Journal of Applied Behavior Analysis</i> 1981; 14, 307 – 315.	No appropriate control No ADHD outcome.
Rosen (1984)	Rosén, L.A., O'Leary, S.G., Joyce, S.A., Conway, G., Pfiffner, L.J. The importance of prudent negative consequences for maintaining the appropriate behavior of hyperactive students. <i>Journal of Abnormal Child Psychology</i> . 1984;12(4):581-604.	Not randomised No appropriate control
Rutter (2000)	Rutter, M. & Sroufe, A. Developmental psychopathology: Concepts and challenges. <i>Development and Psychopathology</i> 2000; 12: 265 – 296.	No data. Review.
Sanders (2007)	Sanders, M.R., Bor, W., Morawska, A. Maintenance of treatment gains: a comparison of enhanced, standard, and self-directed Triple P-Positive Parenting Program. <i>Journal of Abnormal Child Psychology</i> 2007 Dec; 35(6):983-98.	Not an ADHD sample.
Sayal (2010)	Sayal, K., Owen, V., White, K., Merrell, C., Tymms, P., Taylor, E. Impact of early school-based screening and intervention programs for ADHD on children's outcomes and access to services: follow-up of a school-based trial at age 10 years. <i>Archives of Pediatrics and Adolescent Medicine</i> 2010;164(5):462-9	Does not meet treatment definition
Schumann (1998)	Schuhmann, E.M., Foote, R.C., Eyberg, S.M., Boggs, S.R. & Algina, J. Efficacy of parent-child interaction therapy: Interim report of a randomised trial with short term maintenance. <i>Journal of Clinical Child Psychology</i> 1998; 27 (1): 34 – 45.	Not an ADHD sample. No ADHD outcome.
Schafto (1977)	Shafto, F., Sulzbacher, S. Comparing treatment tactics with a hyperactive preschool child: stimulant medication and programmed teacher intervention. <i>Journal of Applied Behavior Analysis</i> 1977 10(1):13-20	Case-study
So (2008)	So, C.Y., Leung, P.W., Hung, S.F. Treatment effectiveness of combined medication/behavioural treatment with chinese ADHD children in routine practice. <i>Behaviour Research and Therapy</i> 2008; 46(9):983-92.	No appropriate control.
Springer (2010)	Springer C, Reddy LR. Measuring parental treatment adherence in a multimodal treatment program for children with ADHD: a preliminary investigation. <i>Child & Family Behavior Therapy</i> 2010, 32:272-290	No appropriate control. Not randomised.
Strayhorn (1989)	Strayhorn, J.M., Weidman, C.S. Reduction of attention deficit and internalizing symptoms in preschoolers through parent-child interaction training. <i>Journal of the American Academy of Child and American Psychiatry</i> 1989 Nov;28(6):888-96.	Not an ADHD sample.
Swanson (2001)	Swanson, J.M., Kraemer, H.C., Hinshaw, S.P., Arnold, L.E., Conners, C.K., Abikoff, H.B., Clevenger, W., Davies, M., Elliott, G.R, Greenhill, L.L., Hechtman, L., Hoza, B., Jensen, P.S., March, J.S., Newcorn, J.H., Owens, E.B., Pelham, W.E., Schiller, E., Severe, J.B., Simpson, S., Vitiello, B., Wells, K., Wigal, T., Wu, M. Clinical relevance of the primary findings of the MTA: success rates based on severity of ADHD and ODD symptoms at the end of treatment. <i>Journal of the American Academy of Child and American Psychiatry</i> 2001;40(2):168-79	Reanalysis of MTA Cooperative Group (1999).
Thorell 2009	Thorell, L.B. The Community Parent Education Program (COPE): treatment effects in a clinical and a community-based sample. <i>Clinical Child Psychology and Psychiatry</i> .	Not fully randomised.

	2009;14(3):373-87..	
Thurston (1979)	Thurston, L.P. Comparison of the effects of parent training and of Ritalin in treating hyperactive children. <i>International Journal of Mental Health</i> 1979; 8(1), 121-8.	Randomisation unclear.
Tutty (2003)	Tutty, S., Gephart, H., Wurzbacher, K. Enhancing behavioral and social skill functioning in children newly diagnosed with attention-deficit hyperactivity disorder in a pediatric setting. <i>Journal of Development and Behavioral Pediatrics</i> 2003;24(1):51-7	No appropriate control. Effects of an additional behavioural intervention on children with medication.
Van der Oord (2007)	Van der Oord, S, Prins, P.J, Oosterlaan, J, Emmelkamp, P.M. Does brief, clinically based, intensive multimodal behavior therapy enhance the effects of methylphenidate in children with ADHD? <i>European Child and Adolescent Psychiatry</i> 2007;16(1):48-57	No appropriate control.
Waxmonsky (2008)	Waxmonsky, J, Pelham, W.E, Gnagy, E, Cummings, M.R, O'Connor, B, Majumdar, A, Verley, J, Hoffman, M.T, Massetti, G.A, Burrows-MacLean, L. Fabiano, G.A, Waschbusch, D.A., Chacko, A., Arnold, F.W, Walker, K.S, Garefino, A.C, Robb, J.A. The efficacy and tolerability of methylphenidate and behavior modification in children with attention-deficit/hyperactivity disorder and severe mood dysregulation. <i>Journal of Child And Adolescent Psychopharmacology</i> 2008;18(6):573-88.	No appropriate control. Only ADHD with severe mood dysregulation included.
Waxmonsky (2010)	Waxmonsky, J.G., Waschbusch, D.A., Pelham, W.E., Draganac-Cardona, L., Rotella, B., Ryan, L. Effects of atomoxetine with and without behavior therapy on the school and home functioning of children with attention-deficit/hyperactivity disorder. <i>Journal of Clinical Psychiatry</i> 2010;71(11):1535-51	No appropriate control.
Wells (2006)	Wells, K.C., Chi, T.C., Hinshaw, S.P., Epstein, J.N., Pfiffner, L., Nebel-Schwalm, M., Owens, E.B., Arnold, L.E., Abikoff, H.B., Conners, C.K., Elliott, G.R., Greenhill, L.L., Hechtman, L., Hoza, B., Jensen, P.S., March, J., Newcorn, J.H., Pelham, W.E., Severe, J.B., Swanson, J., Vitiello, B., Wigal, T. Treatment-related changes in objectively measured parenting behaviors in the multimodal treatment study of children with attention-deficit/hyperactivity disorder. <i>Journal of Consulting and Clinical Psychology</i> 2006;74(4):649-57	Reanalysis of the MTA cooperative group (1999)
Wolraich (1978)	Wolraich, M., Drummond, T., Salomon, M.K., O'Brien, M.C. & Savage, C. Effects of methylphenidate alone and in combination with behaviour modification procedures on the behaviour and academic performance of hyperactive children. <i>Journal of Abnormal Child Psychology</i> 1978; 6 (1): 149 – 161.	No appropriate control.
Wulbert (1977)	Wulbert, M., Dries, R. The relative efficacy of methylphenidate (ritalin) and behavior-modification techniques in the treatment of a hyperactive child. <i>Journal of Applied Behavior Analysis</i> 1977;10(1):21-31	Case-study.

Section 2: Detailed description of the included trials

A) Restricted Elimination Diets

Table SII.a: Characteristics of studies included in the meta-analysis

Trial	Participant inclusion	Design	Treatment duration	Concurrent stimulant medication %	Participant selection by prior treatment response	Treatment	Control condition	N ^A T C	Age range in months	Gender % male
Boris (1994)	DSM-III-R	cross-over ^B of food challenges whilst on few food elimination diet	1 wk.	no report	responders in open label uncontrolled trial of few food elimination diet ^C	active challenges: 5gm of powdered food (either milk, corn, wheat, soya or orange) or, for 4 children, 100 mg dyes: Green #3 (E143) 0.15mg, Red #3 (E127) 6.30mg, Red #4 (E120) 0.52, Red #40 (E129) 40.02, Yellow #5 (E102) 28.00, Yellow #6 (E110) 24.83 in lentil soup or apple cranberry sauce	placebo challenges: lentil soup or apple cranberry sauce	16 16	90 (mean)	69

Carter (1993)	DSM III	cross-over ^B of food challenges whilst on few food elimination diet	1 wk. active challenge; 1 wk. placebo	no report	responders in open label uncontrolled trial of few food elimination diet ^D and open label re-introduction	active challenges: individually selected provoking food items previously established in open label challenge phase.	placebo challenges: specifics not reported.	19 19	36 to 144 (in initial open label diet trial)	88 (in initial open label diet trial)
Egger (1985)	score of more than 14 on the CPRS	cross-over ^B of food challenges whilst on few food elimination diet	1 to 2 wk.	7 children on sedatives and 5 on methylphenidate during the study ^E	responders in open label uncontrolled trial of few food elimination diet ^F and open label re-introduction	active challenges: individually selected provoking food item previously established in open label challenge phase	placebo challenges: specifics not reported.	31 31 ^G	36 to 144 Divided into younger 3 to 5 and older 6 to 12 years groups for analysis.	74
Kaplan (1989)	DSM-III	cross-over DBPC trial of diet	3 or 4wk.	0	no	Alberta Children's Hospital ACH) diet ^H	placebo equivalent diet ^I	25 25	42 to 72	100
Pelsser (2009)	DSM IV	open label parallel group RCT of diet	5 wk.	0	no	restricted elimination diet (RED) ^J	wait list	15 12	42 to 100	81
Pelsser (2011)	DSM IV	open label parallel group RCT of diet	5 wk.	0	no	restricted elimination diet (RED) ^J	wait list	50 50	48 to 107	86
Schmidt (1997)	DSM-III-R (1 child had CD only)	cross-over DBPC trial of diet	9 days	0	no	oligoantigenic diet ^K	control diet ^L	49 49	72 to 144	96

^A N is the number of individuals randomly assigned to the Treatment (T) and Control (C) conditions. ^B Summary statistics not presented separately for periods before and after cross-over so analysed for whole group during treatment and control periods. ^C No dairy products, wheat, corn, yeast, soy, citrus, egg, chocolate, peanuts, food colours or preservatives. ^D The foods allowed were typically two meats (often lamb and turkey), two carbohydrate sources (rice and potato), two fruits (often banana and pear), a range of root and green vegetables, bottled water, sunflower oil, and milk free margarine. ^E Not reported how many children on medication for the double-blind placebo controlled food challenge phase. ^F The foods allowed were typically two meats (often lamb and turkey), two carbohydrate sources (rice and potato), two fruits (often banana and pear), a range vegetables (e.g. brassicas), bottled water, calcium and vitamin tablets. ^G Assigned N not specified for the younger and older sub-samples for analysis. ^H The experimental Alberta Children's Hospital (ACH) diet eliminated artificial colours and flavours, monosodium glutamate, preservatives, chocolate, caffeine, and any substances that families reported might affect their specific child. The diet was also low in simple sugars, and it was dairy-free if the family reported a history of possible problems with cow's milk. The participants also received a multivitamin supplement that contained no sugar or artificial colours/flavours. In addition, an attempt was made to reduce common environmental inhalants in the home. ^I Food intake for the child for the equivalent was matched for foods and nutrients on a day-by-day basis with his own baseline period i.e. usual diet. ^J RED consisted of rice, lamb, vegetables, fruits, margarine, vegetable oil, tea, pear juice and water. ^K Two types of meat (lamb, turkey), two carbohydrate sources (rice, potatoes), two types of vegetables (any cabbage, carrots), two fruits (apple, banana). For preparing meals a special oil/margarine, salt and water were allowed. Beverages were confined to apple juice and mineral water. ^L The control diet included common food ingredients, artificial colorants and other additives and substances assumed to be antigenic, such as cereal proteins and citrus fruits. Specifically 20mg of Yellow #5 Tartrazine (E102), 10mg of Quinoline Yellow (E104), 10 mg of New Coccine (E124) and 10 mg of Carmoisine (E122) were included in a daily beverage.

Table SII.b: Trial quality ratings and outcome measures for studies included in the meta-analysis

Trial	Jadad Ratings			Timing of outcomes from start of treatment/challenge	Long term follow-up	Outcomes	
	Randomization	Blinding	Selection/Withdrawals			M-PROX	P-BLIND
Boris (1994)	2	2	1	7 days	no	CPRS ^A Hyperactivity index	CPRS ^A Hyperactivity index
Carter (1993)	2	2	1	7 days	no	CPRS ^B	tester observations ^C
Egger (1985)	2	2	1	7-14 days	no	psychologist's rating of behaviour ^D	psychologist's rating of behaviour ^D
Kaplan (1989)	0	2	1	3-4 wk.	no	CPRS ^B Hyperkinesis Index	CTRS ^B Hyperkinesis Index
Pelsser (2009)	2	0	1	5 wk.	no	CPRS ^E Hyperkinesis Index	none

Pelsser (2011)	2	0	1	4 wk.	no	Parent ARS ^F total score completed by masked paediatrician	none
Schmidt (1997)	1	2	1	7 days	no	CTRS ^B Hyperkinesis Index	CTRS ^B Hyperkinesis Index

Note: Cross-over designs were rated as 0 for randomization on the Jadad scheme. ^A Conners Parent Rating Scale (Goyette et al. ,1978). ^B Conners Parent Rating Scale; Conners Teacher rating Scale (Conners ,1973). ^C Tester observation – an unstandardised rating of hyperactive behaviour during testing. ^D The authors report treatment by order interaction in the CPRS scores and these CPRS results are only presented in graphical form with no SDs. Effect sizes have therefore been derived from the psychologist's rating of behaviour. ^E Conners Parent Rating Scale; Conners Teacher rating Scale (Conners et al. ,1976). ^F ADHD Rating Scale (DuPaul, 1991); M-PROX = most proximal measure; P-BLIND = probably blind measure; ITT = Intention to treat analysis.

B) Artificial Food Colour Elimination

Table SII.c: Characteristics of studies included in meta-analysis

Trial	Participant inclusion	Design	Treatment duration	Concurrent stimulant medication %	Participant selection by prior response to food	Treatment, diet or Food colour challenges mg/day	Control diet or Placebo challenge	N ^A T C	Age range in months	Gender % male
Adams (1981)	more than 2 standard deviations above norm on CPRS	cross-over ^B of food challenges whilst on Feingold diet	no report	no report	previous Feingold diet responsiveness	active challenges: 26mg colour in lemonade and a cupcake	placebo challenge: lemonade and cupcake which adhered to Feingold Diet guidelines	18 18	53 to 139	83
Conners (1976)	Hyperkinetic reaction of childhood (308.0 of the APA DSM II)	cross-over ^B of control vs K-P diet	4 wk.	0	no	Kaiser-Permanente Diet ^C	control diet non-overlapping with the K-P diet	17 17	72 to 155	not reported
Goyette (1976a) ^D	more than 15 on Conners Hyperkinesis Index	cross-over ^B of food challenges whilst on Feingold diet	8 wk.	no report	previous Feingold diet responsiveness	active challenges 2 chocolate cookies per day, containing all the artificial colours approved by the U.S. Food and Drug Administration, in a dosage of half the adult recommended	placebo challenges: 2 chocolate cookies without artificial colouring	16 16	56 to 140	94

						daily allowance				
Goyette (1976b) ^E	more than 15 on Conners Hyperkinesia Index (n=8) Borderline on Conners Hyperkinesia Index (n=5)	cross-over ^B of food challenges whilst on Feingold diet	2 wk.	no report	previous Feingold diet responsiveness	active challenges: 2 chocolate cookies per day, containing all the artificial colours approved by the U.S. Food and Drug Administration, in a dosage of half the adult recommended daily allowance.	placebo challenges: 2 chocolate cookies without artificial colouring.	13 13	40 to 122	69
Harley (1978a)	More than 15 on Conners Hyperkinesia Index rated by either Teacher or Parent or a clinical diagnosis Hyperkinetic reaction of childhood (308.0 of the APA DSM II)	cross-over of control vs Feingold diet	3 to 4 wk.	0	No	Feingold diet ^D	ordinary control diet	36 36	72 to 155	100

Harley (1978b)	more than 15 on Conners Hyperkinesis Index rated by either Teacher or Parent or a clinical diagnosis Hyperkinetic reaction of childhood (308.0 of the APA DSM II)	cross-over ^B of food challenges whilst on Feingold diet	2 wk.	0	previous Feingold diet responsiveness in Harley 1976a	active challenge: candy bar or cookie challenge snacks, containing 27mg of certified food colours per day	placebo challenge: candy bar or cookie placebo snacks, containing no certified food colours	9 9	111 (mean)	100
Levy (1978b)	more than 15 on Conners Hyperkinesis Index	cross-over ^B of food challenges whilst on Feingold diet	2 wk.	no report	not reported but suggested that the same inclusion criteria as used by Goyette (1976) – so possibly previous Feingold diet responsiveness	active challenge: cookies containing 4mg tartrazine (Yellow No. 5; E102) a day	placebo challenge: cookie without food colour	8 8	62 (mean)	88
Williams (1978)	clinically assessed as hyperactive on the basis of behaviors observed and reported by parents and teachers AND taking stimulant medications for at least three months and have been	cross-over ^B of food challenges whilst on Feingold diet	1 wk. in each treatment condition	0 (data extracted from medication free periods only)	judged to be responsive to stimulant medication before start of the trial	active challenge: cookies contained artificial food colouring including Red No. 2 (E123), No. 3 (E127) and No. 4 (E120), Blue No. 1 (E133) and No. 2 (E132), Yellow No. 5 (E102)and No. 6 (E110), Green No. 3 (E143) and Orange B.	placebo challenge: chocolate cookies identical to challenges but without colours	2929	72 to 168	93

	judged responsive to them					Participants ingested 2 cookies per day for the first 4 school days each week. Dosage estimated as half the daily dietary intake of artificial colours in U.S. children				
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^A N is the number of individuals randomly assigned to the Treatment (T) and Control (C) conditions. ^B Summary statistics not presented separately for periods before and after cross-over so analysed for whole group during treatment and control periods. ^C The Feingold Diet which eliminates salicylates, synthetic food colouring and flavours. Specific dosage not applicable. ^D Data from Conners (1980) Chapt 3. ^E Data from Conners (1980) Chapt 4.

Table SII.d: Trial quality ratings and outcome measures for studies included in meta-analysis

Trial	Jadad ratings			Timing of outcomes from start of treatment/ challenge	Long term follow-up	Outcomes	
	Rando mization	Blindin g	Selection/With drawals			M-PROX	P-BLIND
Adams (1981)	1	2	0	3- 4 hrs.	no	parent ratings - unstandardised observations	parent ratings - unstandardised observations
Conner s (1976)	1	2	1	repeatedly over 4 wk.	no	CPRS ^A Hyperkinesis Index	CTRS ^B Hyperkinesis Index
Goyette (1976a)	0	1	0	repeatedly over 4 wk.	no	CPRS ^A Hyperkinesis Index	CTRS ^B Hyperkinesis Index
Goyette (1976b) E	0	1	0	3 hrs.	no	CPRS ^A Hyperkinesis Index	CTRS ^B Hyperkinesis Index
Harley (1978a)	1	2	1	repeatedly over 3-4 wk.	no	CPRS ^A Hyperkinesis Index	CTRS ^B Hyperkinesis Index
Harley (1978b)	0	2	1	repeatedly over 9 wk.	no	CPRS ^A Hyperkinesis Index	CTRS ^B Hyperkinesis Index
Levy (1978b)	1	1	1	repeatedly over 2 wk.	no	CPRS ^A Hyperkinesis Index	CPRS ^A Hyperkinesis Index
William s (1978)	1	2	1	repeatedly over 4 wk.	no	CPRS ^A Hyperkinesis Index	CTRS ^B Hyperkinesis Index

^A Conners Parent Rating Scale (Conners, 1970). ^B Conners Teacher Rating Scale (Conners, 1969). M-PROX = most proximal measure; P-BLIND = probably blind measure. ITT=Intention to treat analysis.

C) Free Fatty Acid Supplements

Table SII.e: Characteristics of studies included in meta-analysis

Trial	Participant inclusion	Design	Treatment duration	Concurrent Stimulant Medication %	Treatment		Control	N ^C T C	Age range in months	Gender % male
					Omega-3 Dose ^A (mg/day)	Omega-6 Dose ^B (mg/day)				
Aman (1987)	above 90 th percentile on RBPC on both Attention Problems and Inattention Scales OR DSM-III	cross-over ^D	4	0	none	2160 LA 270 GLA	liquid paraffin	31 31	107 (mean)	87
Arnold (1989)	DSM-III	cross-over ^D	4 wk.	0	none	40 GLA 350 LA	liquid paraffin	18 18	72 to 144	100
Belanger (2009)	DSM-IV	cross-over ^E	8 wk.	0	300 ^F DHA 750 ^F EPA	none	sunflower oil ^G	19 18	100 (mean)	69
Gustafsson (2010)	DSM-IV	parallel group	15 wk.	0	2.7 DHA 500 EPA	none	rapeseed oil & triglycerides ^H	46 46	84 to 144	80
Hirayama (2004)	32 DSM-IV confirmed 8 DSM-IV strongly suspected	parallel group	2 mo.	15	514 DHA 70 EPA	none	olive oil ^I	20 20	72 to 144	80
Johnson (2009)	more than 1.5 SD above norms on ADHD-RS-IV	cross-over ^E	3 mo.	0	174 DHA 558 EPA	60 GLA	olive oil ^I	37 38	96 to 216	85
Manor (2011)	DSM-IV	parallel group	15 wk.	0	40 DHA 80 EPA ^J	none	cellulose	137 63	72 to 156	70
Raz (2009)	clinical diagnosis of ADHD	parallel group	7 wk.	0	120 ALA	480 LA	vitamin C	39 39	84-156	60
Sinn (2007a)	more than 2 SDs above norm for	parallel group	15 wk.	0	174 DHA 558 EPA	60 GLA	palm oil ^K	167 ^L	84 to 144	74

	Conners ADHD Index									
Stevens (2003)	clinical diagnosis of ADHD and the presence of thirst/skin problems	parallel group	4 mo.	79	480 DHA 80 EPA	96 GLA 40 AA	olive oil ^l	25 25	72 to 156	87
Voigt (2001)	DSM-IV	parallel group	4 mo.	100	348 DHA	none	details not given	27 26	72 to 144	78

^A omega-3 free fatty acids: EPA eicosapentaenoic acid (EPA), DHA - docosahexaenoic acid, ALA - α -linolenic acid. ^B omega-6 free fatty acids: γ -linolenic acid (GLA), linoleic acid (LA) and arachidonic acid (AA). ^C N is the number of individuals randomly assigned to the Treatment (T) and Control (C) conditions. ^D Summary statistics not presented separately for periods before and after cross-over so analysed for whole group during treatment and control periods. ^E Data only used from first period so analysed as a parallel group trial before one-way cross-over. ^F Values based on a child in the 26 to 35 kg body weight range. ^G Sunflower oil is high in omega-6 FFA and should be considered an "active" control. ^H Although rapeseed oil contains only low levels of omega-6 and omega-3 fatty acids, it could be considered an "active" control. ^I Although olive oil is low in FFAs there was evidence in Stevens 2003 that it was having a physiological effect and should be considered an "active" control. ^J Plus 300mg of phosphatidylserine. ^K Palm oil contains omega-6 FFA and could be considered an "active" control. ^L N assigned to T and C not specified. N analysed 77 and 27 respectively.

Table SII.f: Trial quality ratings and outcome measures for studies included in meta-analysis

Trial	Jadad ratings			Timing of outcomes from start of treatment/ challenge	Long term follow-up	Outcomes	
	Randomization	Blinding	Selection/Withdrawals			M-PROX	P-BLIND
Aman (1987)	1	2	1	2 and 4 wk.	no	Parent RBPC ^A Attention problem	CTRS ^B average of Inattention and Hyperactivity
Arnold (1989)	1	2	1	4 wk.	no	CTRS ^B Average item	CTRS ^B Average item
Belanger (2009)	1	1	1	8 wk.	no	CPRS ^C ADHD Index	CPRS ^C ADHD Index
Gustafsson (2010)	2	2	1	15 wk.	no	CPRS ^D Total score	CTRS ^D Total score
Hirayama (2004)	2	1	1	8 wk.	no	DSM-IV combined parent and teacher symptom count ^E	DSM-IV combined parent and teacher symptom count ^E
Johnson (2009)	2	2	1	3 mo.	no	Parent ADHD-RS-IV ^F Total	Parent ADHD-RS-IV ^F Total
Manor (2011)	2	2	1	15 wk.	no	CPRS ^G ADHD Index	CTRS ^G ADHD Index
Raz (2009)	2	1	1	7 wk.	no	Parent ADHD-RS-IV ^F Average of Inattention/Hyperactivity/Impulsivity	CTRS ^H ADHD
Sinn (2007a)	1	2	1	15 wk.	no	CPRS ^I ADHD Index	CPRS ^I ADHD Index
Stevens (2003)	1	2	0	4 mo.	no	CASQ ^J Parent	CASQ ^J Teacher
Voigt (2001)	2	2	1	4 mo.	no	CBCL ^K Attention problem sub-scale	CBCL ^K Attention problem sub-scale

^A Revised Behavior Problem Checklist (Quay, 1983). ^B Conners Teacher Rating Scale (Conners, 1969). ^C Conners Parent Rating Scale (Conners, 1997). ^D Conners Parent Rating Scale; Conners Teacher Rating Scale (Conners, 1990). ^E Developed by the authors. ^F DuPaul et al. (1998). ^G Conners Parent Rating Scale; Conners Teacher Rating Scale (Conners, 1998). ^H Conners Teacher rating Scale; Conners Parent rating Scale (1973). ^I Conners Parent Rating Scale (Conners, 2000). ^J Conners Abbreviated Symptom Questionnaire (Conners, 1992). ^K Child Behaviour Checklist (Achenbach & Edelbrock, 1983). M-PROX = most proximal measure; P-BLIND = probably blind measure. ITT=Intention to treat analysis.

D) Cognitive Training

Table SII.g: Characteristics of studies included in meta-analysis

Trial	Participant inclusion	Design	Treatment duration	Concurrent stimulant medication %	Treatment	Control condition	N ^A T C	Age range in months	Gender % male
Johnstone ^B (2010)	DSM-IV	2 parallel groups	5 wk.	55% ^C	working memory training (six computer games) high intensity (10 levels of difficulty)	working memory (six computer games) training low intensity (low moderate level difficulty)	20 20	95-149	85
Klingberg (2005)	DSM-IV	parallel group	5 wk.	no ^D	working memory training increasingly higher level difficulty automatically adjusted (RoboMemo (R)). ^E	working memory training low level difficulty (2-3 items) (RoboMemo (R)) ^E	26 27	116 (mean)	72
Rabiner (2010) ^F	T-score > 60 DSM-IV Inattentive Scale CTRS-R:L	3 parallel groups	14 wk.	7% on ADHD medication (type of medication not specified)	computerized training of auditory and visual attention, Captain's Log ^G	wait list	25 25 ^H	NS	69

Shalev (2007)	DSM-IV	parallel group	8 wk.	no ¹	computerized progressive training based on four tasks ¹	computer games in sessions of the same frequency, length, and format than training	20 16	72-156	83
Steiner (2011) ^L	diagnosis of ADHD confirmed by the physician	3 parallel groups	average 23.4 sessions, 4 mo.	60 % (type not specified)	attention training and working memory training moduls of Brain Train ^M	Wait list	13 15	no report; mean 148.8 ± 10.8	52
Johnstone (2012)	DSM-IV	3 parallel groups	5 wk.	87%	working memory and inhibitory control training,	Wait list	22 20	95-145	86%

^A N is the number of individuals in the Treatment (T) and Control (C) conditions; ^B The study also included an arm on inhibition training, not considered for the present meta-analysis ; ^C 15 participants on methylphenidate stopped 24 hrs. prior the pre-training assessment; ^D Two children stopped stimulants more than 1 year before the study; one discontinued stimulant medication 1 week before the study; the other participants were stimulant-naïve; ^E Cognitive Medical Systems AB, Stockholm, Sweden; ^F This study also included an arm on "Computer assisted instruction" not considered for the present meta-analysis; ^G Braintrain @ <http://www.braintrain.com/captainslogmentalgyim/>; ^H 27 additional participants were allocated to Computer assisted instruction; ^I 4 participants in the treatment group and 3 the control group received psychostimulants throughout the duration of the study. None were medicated neither during the training sessions nor during the pre- and post-testing sessions. ¹ 1) *Computerized Continuous Performance Task* (CCPT; Rosvold et al. 1956), to improve *Sustained Attention*. 2) *Conjunctive Search Task* (Treisman & Gelade, 1980), to improve the function of *Selective Attention*. 3) *Combined Orienting and Flanker Task* (Eriksen & Eriksen, 1974) to improve the function of *Orienting Attention*. 4) *Shift Stroop-like Task* (Navon, 1977), designed to improve the function of *Executive Attention*. ^L This trial also included an arm of neurofeedback considered against wait list in neurofeedback analysis. ^M <http://www.braintrain.com>

Table SII.h: Characteristics of studies included in meta-analysis

Trial	Jadad ratings			Timing of outcome measures from start of treatment	Long term Follow-up	Outcomes	
	Randomization	Blinding	Selection/Withdrawals			M-PROX	P-BLIND
Johnstone (2010)	1	1	1	within 7 days of the end of the training period	no	Parent ADHD symptoms frequency rating	Parent ADHD symptoms frequency rating
Klingberg (2005)	1	2	2	5-6 wk. after baseline visit	3 mo.	CPRS-R:S, I +H/I ^A	CTRS, R:S, I +H/I ^B
Rabiner (2010)	1	1	0	6 mo. after baseline	12 mo. after baseline	CTRS, R:L ^C	CTRS, R:L
Shalev (2006)	1	1	0	Within 2 wk. of completing the 8-wk.treatment	no	Du Paul ADHD parent rating scale ^E	Du Paul ADHD parent rating scale ^E
Steiner (2011)	2	0	1	within one mo. of end training	no	CPRS-R, ADHD index ^F	CTRS- R, ADHD index ^G
Johnstone (2012)	1	0	1	30–35 days after the pre-training session.	6 mo.after baseline	Purpose designed ADHD rating scale (unvalidated)	none

^A CPRS-R:S: Conners Parent Rating Scale-Revised, Short form (Conners 1997); ^B CTRS-R:S: Conners Teacher Rating Scale-Revised, Short form (Conners 1997); ^C CTRS-R:L: Conners Teacher Rating Scale-Revised, Long form (Conners 1997) ^D Teachers were initially blind to students' condition but the authors state that "some undoubtedly became aware of who received intervention"; ^E Parent ADHD Rating Scale (DuPaul 1991) ^F CPRS-R: Conners Parent Rating Scale-Revised (Conners 1997); ^G CTRS-R: Conners Teacher Rating Scale-Revised (Conners 1997). M-PROX = most proximal measure; P-BLIND = probably blind measure; ITT = intention to treat analysis.

E) Neurofeedback

Table SII.i: Characteristics of studies included in meta-analysis

Trial	Participant inclusion	Design	Treatment duration	Concurrent stimulant medication %	Treatment	Control condition	N ^A T C	Age range in months	Gender % male
Bakhshayesh (2011)	Hyperkinetic Disorder (ICD-10 F90.0 or F98.8); structured standardized interview	parallel group	30 sessions; 10-15 wk.	T: 22% C: 18% medication constant throughout training	Theta-Beta training (theta (4–8 Hz) suppression and beta (16–20 Hz) enhancement)	EMG (relaxation training, instruction to keep EMG amplitude below baseline)	18 17	72-168	74
Beauregard (2006)	DSM-IV; structured clinical interview	parallel group	40 sessions; 13 wk.	no - washout for pre-treated children	Theta-Beta training: 20 sessions SMR ^B enhancement and theta suppression; 20 sessions beta1 (15-18 Hz) enhancement and theta suppression	no treatment	15 5	96-144	55
Gevensleben (2009)	DSM-IV; semi-structured clinical interview	parallel group, multisite	36 sessions, 2 mo.	no	18 sessions Theta-Beta + 18 sessions SCP ^C in balanced order	"Skillies" ^D , attentional exercises plus meta-cognitive strategies	64 38	8-12	82

Heinrich (2004)	DSM-IV; semi-structured clinical interview	parallel group	25 sessions; 3 wk.	T: 6/13 C: 4/9 medication constant throughout training	SCP ^c	wait list	13 9	84-156	95
Holtmann (2009)	Hyperkinetic Disorder (ICD-10 F90.0, 90.1 or F98.8); semi-structured standardized interview	parallel group	20 sessions in 2 wk.	79%	Theta-Beta training	Captain's Log Attentional Skills ^g , targeting perception, attention and cognition; progressive	20 14	84-144	91
Lansbergen (2011)	DSM-IV	parallel group	30 sessions, 3 mo.	T: 5/8 C: 4/6	Individualised frequency band training (in most subjects: enhancement of sensorimotor rhythm and suppression of theta activity)	placebo-neurofeedback (feedback on a simulated EEG signal)	8 6	96-180	93
Linden (1996)	DSM-III; family interview and rating scales	parallel group	40 sessions, 6 mo.	No ADHD medication allowed	Theta-Beta training	wait list	9 9	60-180	No report
Steiner (2011)	diagnosis of ADHD confirmed by the physician	3 parallel groups ^f	average 23.4 sessions, 4 mo.	60% (type not specified)	Theta-Beta training	wait list	13 15	no report; mean 148.8 ± 10.8	52

^a N is the number of individuals in the Treatment (T) and Control (C) condition. ^b SMR: sensorimotor rhythm(12-15 Hz). ^c SCP: Training of slow cortical potentials. ^d Auer-Verlag, Donauwörth, Germany. ^e QEEG : Quantitative EEG. ^f This trial also included a computerised attention training arm which was included against wait list in the cognitive training analysis. ^g <http://www.braintrain.com>

Table SII.j: Trial quality ratings and outcome measures for studies included in meta-analysis

Trial	Jadad ratings			Timing of outcomes from start of treatment	Long term follow-up	Outcomes	
	Randomization	Blinding	Selection/Withdrawals			M-PROX	P-BLIND
Bakhshayesh (2011)	1	1	1	after completion of training	6 mo.	P-FBB-HKS _A	T-FBB-HKS _B
Beauregard (2006)	1	0	0	1 week after completion of training	no	CPRS-R, ADHD index _C	none
Gevensleben (2009)	1	0	1	1 week after completion of training	6 mo.	P-FBB-HKS	T-FBB-HKS
Heinrich (2004)	1	0	1	after completion of training	no	P-FBB-HKS	none
Holtmann (2009)	1	0	1	1 month after completion of training	no	P-FBB-HKS	none
Lansbergen (2011)	1	2	1	after completion of training	6 mo.	P-ADHD-RS _E	Du Paul ADHD-RS _F
Linden (1996)	1	0	0	after completion of training	no	P-SNAP _G inattention subscale	none
Steiner (2011)	2	0	1	within one mo. of end training	no	CPRS-R, ADHD index	CTRS-R, ADHD index _D

^A P-FBB-HKS: German ADHD Rating Scale, parent version (Döpfner & Lehmkuhl 2000). ^B T-FBB-HKS: German ADHD Rating Scale, teacher version (Döpfner & Lehmkuhl 2000). ^C CPRS-R: Conners Parent Rating Scale-Revised (Conners 1997). ^D CTRS-R: Conners Teacher Rating Scale-Revised (Conners 1997). ^E P-ADHD-RS: Parent ADHD Rating Scale (DuPaul et al. 1998). ^F Du Paul ADHD-RS : Parent ADHD Rating Scale (DuPaul 1991). ^G P-SNAP: Parent rating scale (Swanson, Nolan, Pelham 1981). M-PROX = most proximal measure; P-BLIND = probably blind measure; ITT = Intention to treat analysis.

F) Behavioural Interventions

Table SII.k: Characteristics of studies included in meta-analysis

Trial	Participant selection	Design	Treatment duration	Concurrent stimulant medication %	Treatment	Control condition	N ^A T C	Age range in months	Gender % male
Bloomquist (1991)	DICA-R	3 parallel group school based cluster design comparing multi-component, teacher only and wait list	10 wk.	no report ^B	multi-component cognitive behavioural therapy which included 20 hours of child CBT plus 8 hours of teacher CBT plus 10.5 hours of parent CBT	wait list	20 16	treat 100.92 (mean) control 105.72 (mean)	69 ^C
Bor (2002)	DSM-IV	3 parallel group -comparing standard and enhanced behavioural intervention against wait list	15 wk. Standard 17 wk. enhanced	no	enhanced Behavioural Family Intervention (Triple P) plus additional partner support and coping skills training.	wait list	26 37	treat 40.41 (mean) ^D control 42.81 (mean) ^D	73.5 ^D
Brown (1986)	DSM III	4 parallel group - comparing cognitive training and placebo against methylphenidate and attention control against methylphenidate and cognitive training against	11 wk.	no	22 hours of Cognitive Behavioural Self-control training which aimed to teach the child to cope more effectively and independently with cognitive	22 hours of Attention control which offered similar exposure but no problem solving strategies	10 8	68 – 157 ^C	85

		attention control and placebo			problems				
Evans (2011)	KSADS	parallel group	1 school year ^E	67 % of controls; 52 % of intervention	family check-up a brief motivational intervention for families followed by the Challenging Horizons After School Programme by Behavioural parent and child intervention, This included parent and family groups held 2 – 4 times a week for part of a school term. The programme aimed to help students to learn skills to succeed socially and academically	community care: families in community care were given contact details for local services and summary of their assessment was sent to school psychologist .	31 18	120 – 156	71
Fehlings (1991)	DSM IIIR	parallel group	16 wk.	no	child and family cognitive behavioural therapy; child therapy included defining the problem, setting a goal, generating workable	The supportive therapy control included education on ADHD, however instructions on cognitive behavioural	13 13	99 - 130	100

					problem solving strategies, choosing a solution and evaluating outcomes using self-reinforcement. Family therapy included education on ADHD, and strategies to encourage the child to solve problems arising in the home.	therapy was replaced with supportive listening.			
Hoath (2002)	type not specified	parallel group	17 wk.	88% in intervention and 64% in control	Enhanced Behavioural Family Intervention (Triple P) plus additional partner support and coping skills training	wait list	9 11	60 – 108	76
Horn (1991)	DSM IIIR	6 parallel group double blind placebo design comparing high and low doses of methylphenidate alone and in combination with behavioural parent training and child self-	12 wk.	no	18 hours of Behavioural parent training which aimed to apply principles of social learning theory to the management of ADHD plus 18 hours of self-control training for the child	drug placebo	16 16	84 - 121	no report

		control training			which consisted of a six step problem solving plan that included deep muscle relaxation, in conjunction with imaginal rehearsal plus drug placebo				
Jones (2007)	SDQ	parallel group	12 wk.	no	behavioural parent training (Incredible Years BASIC 12) based on principles of social learning theory.	wait list	50 29	treat 46.5(mean) control 45.9(mean)	68
MTA cooperative group(1999)	DSM IV DISC	4 parallel group - comparing medication only against behavioural intervention (parent, teacher and child support) only, against combined medication and behavioural intervention against community care	14 mo.	26% of Behavioural intervention and 67.4 % of community care	parent training, child focused treatment and school based intervention. Parent intervention included 27 group and 8 individual sessions per family. Child intervention was a summer treatment programme for 8 weeks, 5 days a week for 9 hours. School based intervention	community care ^F	14 4 14 6	treat 99.6(mean) control 105 (mean)	treat 79 control 82

					included 10 – 16 biweekly teacher consultations and 60 days' worth of a paraprofessional aid who supported the child in the classroom				
Pisterman (1992)	DSM III as reported by parent or teacher on SNAP	parallel group	12 wk.	2 in intervention and 1 in control ⁹	attention training behavioural intervention aimed at shaping on-task behaviour, enhancing compliance and implementing time-out procedures for non-compliance.	wait list	23 22	treat 46.78(mean) control 52.41(mean)	91
Sonuga-Barke (2001)	PACS ADHD/Hyperkinetics Scale	3 parallel group -comparing Behavioural parent training against parent counselling against wait list	8 wk.	no	behavioural parent training (New Forest Parenting Programme) which included introducing parents to a range of strategies specifically designed to target the underlying aetiology of	parent counselling 8, 1 hour sessions which did not contain any training in behavioural strategies but which disused and explored issues of concern to	30 28	33 - 39	62 ^c

					ADHD	the parent			
Sonuga-Barke (2004)	Above clinical cut-off on PACS ADHD/Hyperkinesias Scale	parallel group	8 wk.	no	behavioural parent training (New Forest Parenting Programme) which included introducing parents to a range of strategies specifically designed to target the underlying aetiology of ADHD	wait list	59 30 ^H	33 - 39	no report
Thompson (2009)	Above clinical cut-off on the PACS ADHD/Hyperkinesias Scale	parallel group	8 wk.	no	behavioural parent training (New Forest Parenting Programme) which included introducing parents to a range of strategies specifically designed to target the underlying aetiology of ADHD.	treatment as usual: Participants received no treatment from study, but received contact information for other health professionals and agencies. ⁱ	21 20	30 - 77	73
van den Hoofdakker (2007)	DSM-IV DISC	parallel group	12 wk.	47 no breakdown for intervention and control	12 120 minute sessions of behavioural parent training that drew on the techniques of Barkley (1987)	treatment as usual: clinicians were instructed to provide care as usual	48 48	48 - 144	76

					and Forehand & McMahon (1981)	including medication, psycho-education, counselling, and crisis management whenever necessary			
Webster-stratton (2011)	DSM-IV DISC	parallel group	20 wk.	5 in intervention and 7 in control ^j	20 2 hours behavioural parent training sessions focusing on academic, persistence, social, and emotional coaching. Establishing predictable household routines, and schedules, emotional regulation, and problem solving. 20 2 hours child sessions of IY Dinosaur training which included following group rules, identifying and articulating feelings, problem solving, anger management,	wait list	49 50	treat 64.1(mean) control 64.4(mean)	treat 73 (mean) control 78 (mean)

					friendship skills and teamwork				
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^A N is the number of individuals randomly assigned to Treatment (T) and Control (C) condition. ^B Concurrent medication is only reported for those dropped from trial 50%. ^C in full sample. ^D Values only reported before considerable attrition and intention to treat analysis was not used. ^E Number of weeks not stated Brief 3 X 90 minutes Family check-up motivational intervention for parents given between September and December and Challenging Horizons intervention given between January and end of school year. ^F % of behavioural intervention accessed by community care group. ^G Medication status was considered during randomisation procedure. ^H 20 out of the 30 control in this study were shared with the control group from Sonuga-Barke 2001. ^I None of the treatment as usual group received any intervention or parent training during the course of the study, so the group functioned as a no treatment group. ^J Five control families also received additional therapeutic services. In the intervention group one child received a social skills group at school.

Table SII.I: Trial quality ratings and outcome measures for studies included in meta-analysis

Trial	Jadad ratings			Timing of outcomes from start of treatment	Long term follow-up	Outcomes	
	Randomization	Blinding	Selection/Withdrawals			M-PROX	P-BLIND
Bloomquist (1991)	1	0	1	10 wk.	6 wk.	CTRS ^A	none
Bor (2002)	1	0	1	no report	52 wk.	ECBI ^B	none
Brown (1986)	1	0	1	13 wk.	25 wk.	CPRS HYP ^C	ACRS ^D
Evans (2011)	1	0	0	no report	no	Parent ADHD RS ^E	none
Fehlings (1991)	1	0	1	16 wk.	20 wk.	Parent WWP ^F	none
Hoath (2002)	1	0	0	12 wk.	no	Parent CAPS ^G	Teacher CAPS ^{G&H}
Horn (1991)	1	0	1	not report	no	CPRS ^A	none ^I
MTA cooperative group (1999)	2	0	1	60 wk.	Yes up to 8 years	Parent SNAP ^J	classroom observation ^K
Jones (2007)	2	0	1	Variable ^L	18 months	CPRS ^L	None
Pisterman (1992)	1	0	1	12 wk.	12 wk.	Time on task ^M	observation of time on task ^M
Sonuga-Barke (2001)	1	2	1	9 wk.	12 wk.	PACS ADHD ^N	home observation ^O
Sonuga-Barke (2004)	1	2	1	9 wk.	12 wk.	PACS ADHD ^N	none
Thompson (2009)	2	2	1	9 wk.	7 wk	PACS ADHD ^N	home observation ^P
van den Hoofdakkar (1997)	2	0	1	20 wk.	24wk	CPRS-R:S ^Q	none
Webster-Stratton (2011)	1	0	1	Variable ^R	no	CPRS-R ^S	none

^A Conners Parent Rating Scale (Goyette et al 1978). ^B Eyberg Child Behavior Inventory. Factor analysis of this measure indicates 3 factors Oppositional, Inattention and Conduct (Burns 2000). ^C Conners (1969) Hyperactivity Scale. ^D Abbreviated Conners Activity Scale (Conners 1969). ^E ADHD rating scale DuPaul et al 1998). ^F Werry Weiss Activity Scale (Werry 1968). ^G Child Attention Problem Rating Scale (Edelbrock et al 1987). ^H Teacher ratings were available for this study but teachers intervention was augmented with school consultation so teacher were not blind to condition. ^I Structured Observations of Clinic and Play Settings (Roberts 1984). ^J Swanson, Nolan & Pelham Scale (Swanson et al 1992). ^K Abikoff Classroom Observation Code (Abikoff et al 1985). ^L Conners Abbreviated Parent Rating Scale (Conners 1994) Post intervention assessment was conducted six months after recruitment with intervention occurring at some point between those two intervals but at different points for different groups within the trial. ^M independent free play observation sessions (Pisterman 1992). ^N Parental Account of Childhood Symptoms Interview (Taylor et al 1991). ^O Engagement represented time on task divided by number of switches. ^P Ratings of time off task, fidgeting with body, fidgeting with object and squirming. ^Q Short Form Conners Parent Rating Scale Revised: Short Form (Conners 2001). ^R All pre-tests were conducted in September or October and post-test in May or June of each year ^S Conners Parent Rating Scale Revised (Conners 1998). M-PROX = most proximal measure; P-BLIND = probably blind measure: ITT = Intention to treat analysis.