Foundations
What Works Centre for Children & Families

Last reviewed: July 2016

Intervention website: https://nfppprogram.com/

GUIDEBOOK INTERVENTION INFORMATION SHEET

New Forest Parenting Programme

Please note that in the 'Intervention Summary' table below 'child age', 'level of need', and 'race and ethnicities information is **as evaluated in studies**. Information in other fields describes the intervention as **offered/supported by the intervention provider**.

Intervention summary	
Description	The New Forest Parenting Programme (NFPP) is for parents with a child between 3 and 11 years old with attention deficit hyperactivity disorder (ADHD). NFPP is delivered by a single practitioner to parents and children in their homes through eight weekly two-hour visits. During these visits, parents learn about ADHD symptoms and the ways in which they may affect their child's behaviour and parents' relationship with their child. Parents also learn strategies for managing their child's behaviour and attention-related difficulties.
Evidence rating	3+
Cost rating	3
Child outcomes	• Preventing crime, violence and antisocial behaviour - Improved behaviour - Reduced hyperactivity.
Child age (population characteristic)	3 and 11 years old
Level of need (population characteristic)	Targeted Indicated

Intervention summary	
Race and ethnicities (population characteristic)	• African American • Asian • Hispanic • White • Other minoritised ethnic groups.
Type (model characteristic)	Individual
Setting (model characteristic)	Home
Workforce (model characteristic)	Health visitors
UK available?	Yes
UK tested?	Yes

Model description

The New Forest Parenting Programme (NFPP) is for families with a child between the ages of 3 and 11 with moderate to severe symptoms of Attention Deficit, Hyperactivity Disorder (ADHD).

NFPP is delivered by a single practitioner to the parents and in their through eight weekly home visits lasting two hours each. During these visits, parents learn about the nature of ADHD and are introduced to a range of behavioural strategies for increasing their child's attention and reducing challenging behaviour. Some of these strategies are taught through games that engage children's attention, encourage their patience, and increase their concentration. The practitioner also observes the parent and child playing games together and provides feedback on the quality of their interaction.

The content is delivered as follows:

- **Week 1:** (parent only) The practitioner discusses the nature of ADHD with the parent and introduces simple strategies, such as the use of praise and eye contact, to manage the child's behaviour and attention.

- **Week 2:** (parent only) The practitioner reviews the weekly diary with the parent and discusses the child's behaviour. Parents learn how to develop routines, communicate clear messages, set limits, and avoid confrontation.
- **Week 3:** (parent and child) Parents learn how to manage their child's temper tantrums and difficult behaviour through the use of firm limits and distraction strategies.
- **Week 4:** (parent and child) Parents learn how to use time out and quiet time effectively.
- **Week 5:** (parent only) The practitioner and parent assess the success of the new strategies.
- **Weeks 6&7:** (parent and child) The practitioner observes the parent and child interacting for 15 minutes. The practitioner then provides feedback about the quality of the interaction.
- **Week 8:** (parent only) The practitioner reviews the key messages from the previous weeks and discusses strategies for managing behaviours that may still be challenging.

Target population

Age of child	3 to 11 years old
Target population	• Children who score more than 20 on the Werry-Weiss-Peters Activity Scale (Routh, 1978) • Children meeting clinically validated cutoffs on the Parental Account of Childhood Symptoms (PACS) ADHD/Hyperkinesis scale • Parents reporting that their child's condition is associated with impairment significant enough to warrant clinical intervention.

Please note that the information in this section on target population is as **offered/supported by the intervention provider**.

Theory of change

Why		Who	How	What		
Science-based assumption	**Science-based assumption**	**Science-based assumption**	**Intervention**	**Short-term outcomes**	**Medium-term outcomes**	**Long-term outcomes**
• ADHD is a common developmental disorder impacting children's behaviour and ability to concentrate • Symptoms of ADHD can negatively impact children's success at school and relationship with others.	Effective parenting behaviours can help children with ADHD better manage their behaviour and concentrate better at school.	Parents with a child diagnosed with ADHD frequently benefit from further support .	Parents learn: • How ADHD symptoms impact children's behaviour • How to respond positively to their child's behaviour • Strategies for reinforcing positive child behaviour • Strategies for helping children manage their emotions • Strategies for helping children control their impulses • Methods for helping children concentrate for longer periods of time.	• Parental stress reduces • Parent–child interaction improves • Children are better able to manage their emotions and impulses.	• Children's self-regulatory capabilities and behaviour improves • Children are better able to engage positively with others.	• Children are at less risk of antisocial behaviour in adolescence • Children experience greater success at school.

Implementation requirements

Who is eligible?	Children aged between 3 and 11 years old with moderate to severe symptoms of ADHD.
How is it delivered?	The NFPP is delivered in eight sessions of between one and 1.5 hours' duration each, by one senior family-support worker, psychologist, health visitor, or nursery nurse to individual families.
What happens during the intervention?	During the weekly visits, parents are made aware of symptoms and signs of ADHD and the ways in which they may affect their child's behaviour and their relationship with their child. Parents also learn strategies for managing their child's behaviour and attention difficulties. Some of these strategies are taught through games that engage children's attention, encourage their patience, and increase their concentration. The practitioner observes the parent and child playing the game together and provides feedback on the quality of their interaction.
Who can deliver it?	The practitioner who delivers this intervention is a senior family-support worker, psychologist, health visitor, or nursery nurse.
What are the training requirements?	The practitioners have 24 hours of intervention training. Booster training of practitioners is recommended.
How are practitioners supervised?	It is recommended that practitioners supervised by one intervention developer supervisor , and one host-agency supervisor .
What are the systems for maintaining fidelity?	Intervention fidelity is maintained through the following processes: • Training manual • Other printed material • Face-to-face training • Fidelity monitoring • Supervision • Accreditation or certification process • Booster training.
Is there a licensing requirement?	Yes

Implementation requirements (cont.)

***Contact details**	Contact person: Cathy Laver-Bradbury Organisation: CAMHS, The Orchard Centre Email address: cathy.laver-bradbury@solent.nhs.uk Website: https://nfppprogram.com/ *Please note that this information may not be up to date. In this case, please visit the listed intervention website for up to date contact details.

Evidence summary

NFPP's most rigorous evidence comes from two RCTs consistent with Foundations' Level 3 evidence strength criteria. Evidence from at least one level 3 study, along with evidence from other studies rated 2 or better qualifies NFPP for a 3+ rating.

The first study was conducted in the UK, observing statistically significant reductions in NFPP parents' reports of their children's behaviour, hyperactivity and attention compared to families not receiving the intervention. This difference was observed immediately after the intervention had finished and then again at a 15-month follow-up assessment. This study also observed significant improvements in NFPP parents' reports of their own mental health relative to those not receiving the intervention, as well as increased satisfaction in their parenting role.

The second study was conducted in the United States, observing statistically significant reductions in NFPP parents' reports of their children's symptoms of ADHD compared to parents not receiving the intervention. This study also observed significant improvements in researcher observation of parenting behaviours compared to parents not receiving the intervention.

NFPP can be described as evidence-based: it has evidence from at least one rigorously conducted RCT or QED demonstrating a statistically significant positive impact on at least one child outcome.

Outcome	Improvement index	Interpretation	Study
Child outcomes			
Reduced conduct problems	+10	1.69-point improvement on the Parental Account of Childhood Symptoms Scale post-intervention	1
Reduced conduct problems	+13	2.14-point improvement on the Parental Account of Childhood Symptoms Scale at 15 weeks follow-up	1
Reduced inattentive behaviour	+43	2.73-point improvement on the ADHD-Rating Scale-IV post-intervention	2
Reduced inattentive behaviour	+31	11.71-point improvement on the Conners Rating Scale-Revised (Inattentive Scale) post-intervention	2
Reduced hyperactive/impulsive behaviour	+33	9.83-point improvement on the Conners Rating Scale-Revised (Hyperactive/Impulsive Scale) post-intervention	2
Reduced hyperactive/impulsive behaviour	+45	1.84-point improvement on the ADHD-Rating Scale-IV post-intervention	2
Reduced hyperactivity	+33	5.55-point improvement on the Parental Account of Childhood Symptoms Scale post-intervention	1
Reduced hyperactivity	+4	1.51-point improvement on a measure of observed attention and engagement post-intervention	1

Outcome	Improvement index	Interpretation	Study
Reduced hyperactivity	+31	5.28-point improvement on the Parental Account of Childhood Symptoms Scale at 15 weeks follow-up	1
Reduced hyperactivity	+26	11.91-point improvement on a measure of observed attention and engagement at 15 weeks follow-up	1
Reduced defiant behaviour	+22	0.26-point improvement on the New York Parent Rating Scale post-intervention	2
Reduced behaviour problems	+34	11.18-point improvement on the Conners Rating Scale-Revised post-intervention	2
Reduced behaviour problems	+45	4.57-point improvement on the ADHD-Rating Scale-IV post-intervention	2
Other outcomes			
Improved maternal wellbeing		General Health Questionnaire Post-intervention	1
Improved maternal wellbeing		General Health Questionnaire 15 weeks follow-up	1
Parenting Efficacy		Parental Sense of Competence post-intervention	1
Parenting Efficacy		Parental Sense of Competence 15 weeks follow-up	1
Parenting Satisfaction		Parental Sense of Competence post-intervention	1

Outcome	Improvement index	Interpretation	Study
Parenting Satisfaction		Parental Sense of Competence 15 weeks follow-up	1

Search and review

	Number of studies
Identified in search	4
Studies reviewed	2
Meeting the L2 threshold	0
Meeting the L3 threshold	2
Contributing to the L4 threshold	0
Ineligible	2

Individual study summary: Study 1

Study 1	
Study design	RCT
Country	United Kingdom
Sample characteristics	78 children aged three with symptoms of ADHD.
Race, ethnicities, and nationalities	Not reported
Population risk factors	18% of families were from social classes 5 or 6 (unskilled occupations)

Study 1	
Timing	• Baseline • Post-intervention (eight weeks after baseline) • 15-week follow-up (23 weeks after baseline).
Child outcomes	• Reduced ADHD symptoms (parent report) • Reduced conduct problems (parent report).
Other outcomes	• Improved maternal mental health (parent report) • Improved parental satisfaction (parent report) • Improved parental efficacy (parent report).
Study Rating	3
Citation	Sonuga-Barke, E. J. S., Daley, D., Thompson, M., Laver-Bradbury, C. & Weeks, A. (2001) Parent-based therapies for preschool attention-deficit/hyperactivity disorder: A randomized, controlled trial with a community sample. *Journal of the American Academy of Child and Adolescent Psychiatry*. 40, 402–408.

Brief summary

Population characteristics

This study included 78 children (48 boys and 30 girls) aged 3 born between January 1992 and September 1993. Children had all scored over 20 on the Werry-Weiss-Peters Activity Scale and met clinically validated cutoffs on the Parental Account of Childhood Symptoms (PACS) ADHD/Hyperkinesis scale, as well as demonstrating impairment significant enough to warrant clinical intervention (as identified by parents). Children were excluded from the trial if their parents had a serious mental illness, they had a serious learning disability, or they had a previous diagnosis for an unrelated mental health condition. 42% of families were from social classes 1 or 2 (professional), 40% from social classes 3 or 4 (skilled), and 18% from social classes 5 or 6 (unskilled). The ethnicity of participants was not reported.

Study design

Families were randomly assigned to one of three conditions as follows:

- The New Forest Parenting Programme (30 children) where parents were educated about ADHD and introduced to a range of behavioural strategies.
- Parent counselling/support (28 children) where no training in behavioural strategies was provided, though parents could explore issues of concern and discuss their feelings about the impact their child had on the family.
- Wait-list control group (20 children) who received no intervention.

Measurement

Assessments took place at baseline, post-intervention (8 weeks after baseline), and at a 15-week follow-up (23 weeks after baseline).

Parent report measures included the Parental Account of Childhood Symptoms (PACS), the General Health Questionnaire, and the Parental Sense of Competence Scale (PSOC).

Researcher-led assessments included a coded observation of child play, developed for the study.

Study retention

91% (71) of parents participated in the post-intervention assessment. The study did not specify which of the three conditions the participants who dropped out were from.

Results

Data-analytic approach

Repeated-measures ANCOVA (Analysis of covariance) was used to assess intervention effects, with baseline (T1) scores as covariates and scores at T2 and T3 as repeated measures. Supplementary pairwise ANCOVA comparisons were conducted if there was a significant interaction effect to identify which intervention was effective. An intention to treat analysis was used and missing data was addressed by replacing missing scores with values representing the poorest outcome for participants in their condition.

Findings

In the NFPP treatment group, ADHD symptoms and conduct problems were reduced in comparison to the wait-list control group. Mothers' sense of wellbeing, parental efficacy, and parental satisfaction also increased relative to the control group.

Study 1: Outcomes table

Outcome	Measure	Effect size	Statistical significance	Number of participants*	Measurement time point
Child outcomes					
ADHD Symptoms	PACS (parent report)	0.87	Yes	50	Post-intervention & follow-up data combined
Conduct Problems	PACS (parent report)	0.43	Yes	50	Post-intervention & follow-up data combined

Outcome	Measure	Effect size	Statistical significance	Number of participants*	Measurement time point
Parent outcomes					
Maternal Wellbeing	GHQ (parent report)	0.48	Yes	50	Post-intervention & follow-up data combined
Parental Efficacy	PSOCS (parent report)	0.61	Yes	50	Post-intervention & follow-up data combined
Parental Satisfaction	PSOCS (parent report)	1.29	Yes	50	Post-intervention & follow-up data combined
*Combined effect sizes of both post-intervention (T2) and follow-up (T3) scores.					

Individual study summary: Study 2

Study 2	
Study design	RCT
Country	United States
Sample characteristics	164 children aged 3 to 5 with symptoms of ADHD living in New York
Race, ethnicities, and nationalities	• 69.2% White • 25.6% Hispanic • 16.4% African American • 8.8% Asian • 5.6% Other.
Population risk factors	76.4% of mothers and 60.3% of fathers were college graduates
Timing	• Baseline • Post-intervention (eight weeks after baseline) • 6.8-month follow-up.

Study 2	
Child outcomes	• Reduced total symptoms of ADHD (parent and clinician report) • Reduced inattentive behaviour (parent and clinician report) • Reduced hyperactivity/impulsive behaviour (parent and clinician report) • Reduced defiant behaviours (parent report).
Other outcomes	Improved parenting practices (parent report)
Study Rating	3
Citation	Abikoff, H. B., Thompson, M., Laver-Bradbury, C., Long, N., Forehand, R. L., Miller Brotman, L., Klein, R. G., Reiss, P., Huo, L. & Sonuga-Barke, E. (2015). Parent training for preschool ADHD: A randomized controlled trial of specialized and generic programs. *Journal of Child Psychology and Psychiatry*. 56, 618–631.

Brief summary

Population characteristics

The sample consisted of 164 boys and girls aged between 3 and 5-years with symptoms of ADHD, living in New York, USA. Participants attended a preschool, daycare or nursery school at least 2 and-a-half days a week. 73.8% of the children were male. DSM-IV ADHD subtype diagnoses included 50.6% Combined, 33.5% Hyperactive/Impulsive 15.2% Inattentive. 41.5% had a diagnosis of oppositional-defiant disorder and 6.7% had an anxiety disorder. 76.4% of mothers and 60.3% of fathers were college graduates. The ethnicities of children were 69.2% White, 25.6% Hispanic, 16.4% African American, 8.8% Asian and 5.6% Other.

Study design

This study used a randomised controlled trial with a three-arm design. Randomisation was stratified by child age and gender and assigned in a 2:2:1 ratio:

- New Forest Parenting Programme group (NFPP) (67 children)
- Helping the Noncompliant Child group (HNC) (63 children)
- Wait-list control group (34 children).

There were no significant group differences on any demographic and clinical variables.

Measurement

Measurement occurred at baseline, post-intervention, and 6.8-month follow-up.

- **Parent report** measures included Conners scales, Parent Rating Scales, and the Parenting Practice Interview

- **Teacher report** measures included Conners scales and the New York Teacher rating scale.
- **Researcher-led** assessments included a coded observation of a sustained and focused attention activity and the Global Impressions of Parent-Child Interactions –Revised.

Study retention

Post intervention

93.3% (153) children participated at post-intervention, representing 93.7% (59) Helping the Non-Compliant child participants, 88.1% (59) New Forest Parenting Programme children, and 100% (34) in wait-list control.

100% of the data (164) was included in the intent-to-treat analysis.

6.8-month follow-up

Only New Forest Parenting Programme children and Helping the Non-Compliant child participants completed assessments at 6.8-month follow-up. In total, 63.4% (104) submitted data, representing 77.8% (49) Helping the Non-Compliant child participants and 82.1% (55) New Forest Parenting Programme participants.

Results

Data-analytical approach

Linear mixed-effect models were used to compare changes in outcomes across treatment groups and timepoints. Pairwise contrasts between the three groups were conducted using t-tests. An intention-to-treat approach was applied.

Findings

The study observed statistically significant improvements in ADHD symptoms reported by parents and clinicians for children in the New Forest Parenting Programme compared to the control group. These improvements included reductions in total ADHD symptoms, inattention symptoms, and hyperactivity symptoms. However, no significant changes in ADHD symptoms were observed based on teacher reports. The study also found significant improvements in children's defiant behaviour as reported by parents, though no significant changes were noted in parent-reported aggressive behaviour or teacher-reported defiance or aggression. No significant improvements were observed in children's delay of gratification or sustained and focused attention and activity, as measured through expert observations of behaviour.

Parenting outcomes demonstrated statistically significant improvements also, including increased positive parenting behaviours.

Study 2: Outcomes table

Outcome	Measure	Effect size	Statistical significance	Number of participants	Measurement time point
Child outcomes					
ADHD symptoms – total	Conners Rating Scale – Revised (parent report)	d=-1.01	Yes	101	Post-intervention
ADHD symptoms – Inattention	Conners Rating Scale – Revised (parent report)	d=-0.89	Yes	101	Post-intervention
ADHD symptoms – hyperactivity	Conners Rating Scale – Revised (parent report)	d=-0.97	Yes	101	Post-intervention
ADHD symptoms – Total	Conners Rating Scale – Revised (teacher report)	N/A	No	101	Post-intervention
ADHD symptoms – Inattention	Conners Rating Scale – Revised (teacher report)	N/A	No	101	Post-intervention
ADHD symptoms – hyperactivity	Conners Rating Scale – Revised (teacher report)	N/A	No	101	Post-intervention
ADHD symptoms – total	ADHD-Rating Scale-IV (clinician rating)	d=-1.66	Yes	101	Post-intervention
ADHD symptoms – Inattention	ADHD-Rating Scale-IV (clinician rating)	d=-1.27	Yes	101	Post-intervention

Outcome	Measure	Effect size	Statistical significance	Number of participants	Measurement time point
ADHD symptoms – hyperactivity	ADHD-Rating Scale-IV (clinician rating)	d=-1.07	Yes	101	Post-intervention
Delay of gratification	Delay of Gratification-Cookies Delay Task (expert observation of behaviour)	N/A	No	101	Post-intervention
Levels of sustained and focused attention and activity – Time on task	Videotaped five-minute observation (expert observation of behaviour)	N/A	No	101	Post-intervention
Levels of sustained and focused attention and activity – Number of switches	Videotaped five-minute observation (expert observation of behaviour)	N/A	No	101	Post-intervention
Levels of sustained and focused attention and activity – index of attention/ engagement	Videotaped five-minute observation (expert observation of behaviour)	N/A	No	101	Post-intervention
Defiance – parent	New York Teacher and Parent Rating (parent report)	d=-0.59	Yes	101	Post-intervention

Outcome	Measure	Effect size	Statistical significance	Number of participants	Measurement time point
Aggression – parent	New York Teacher and Parent Rating (parent report)	N/A	No	101	Post-intervention
Defiance – teacher	New York Teacher and Parent Rating (teacher report)	N/A	No	101	Post-intervention
Aggression – teacher	New York Teacher and Parent Rating (teacher report)	N/A	No	101	Post-intervention
Parent outcomes					
Parenting behaviours	Parenting Practice Interview (parent report)	d= 1.20	Yes	101	Post-intervention
Observed parenting	Global Impressions of Parent Child Interactions-Revised (GIPCI-R) (expert observation of behaviour)	N/A	No	101	Post-intervention
Parenting stress	Parenting Stress Index-Short Form (PSI-R) (parent report)	N/A	No	101	Post-intervention

Other studies

The following studies were identified for this intervention but did not count towards the intervention's overall evidence rating. An intervention receives the same rating as its most robust study or studies.

Sonuga-Barke, E. J. S., Thompson, M., Daley, D. & Laver-Bradbury, C. (2004) Parent training for attention deficit/hyperactivity disorder: Is it as effective when delivered as routine rather than as specialist care? *British Journal of Clinical Psychology*. 43, 449–457.

Thompson, M. J. J., Laver-Bradbury, C., Ayres, M., le Poidevin, E., Mead, S., Dodds, C., Psychogiou, L., Bitsakou, P., Daley, D., Weeks, A., Miller Brotman, L., Abikoff, H., Thompason, P. & Sonuga-Barke, E. J. S. (2009) A small-scale randomized controlled trial of the revised New Forest Parenting Programme for preschoolers with attention deficit hyperactivity disorder. *European Journal of Adolescent Psychiatry*. 18, 605–616.

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Note on provider involvement: This provider has agreed to Foundations' terms of reference (or the Early Intervention Foundation's terms of reference), and the assessment has been conducted and published with the full cooperation of the intervention provider.