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Parent-training/education programmes in the management of children with conduct disorders

NICE technology appraisal guidance 102

Parent-training/education programmes in the management of children with conduct disorders

Ordering information

You can download the following documents from www.nice.org.uk/TA102

- The full guidance (this document).
- A quick reference guide for healthcare and social care professionals.
- Information for parents and carers of children with conduct disorders ('Understanding NICE guidance').
- Details of all the evidence that was looked at and other background information.

The full guidance and quick reference guide are also available at <http://www.scie.org.uk/publications/children.asp>

For printed copies of the quick reference guide or 'Understanding NICE guidance', phone the NHS Response Line on 0870 1555 455 and quote:

- N1078 (quick reference guide)
- N1079 ('Understanding NICE guidance').

This guidance is written in the following context

This guidance represents the view of NICE and SCIE, which was arrived at after careful consideration of the available evidence. Health and social care professionals are expected to take it fully into account when exercising their judgement. The guidance does not, however, override the individual responsibility of social and healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

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1 Guidance

This guidance only applies to the management of children aged 12 years or younger or with a developmental age of 12 years or younger.

- 1.1 Group-based parent-training/education programmes are recommended in the management of children with conduct disorders.
- 1.2 Individual-based parent-training/education programmes are recommended in the management of children with conduct disorders only in situations where there are particular difficulties in engaging with the parents or a family's needs are too complex to be met by group-based parent-training/education programmes.
- 1.3 It is recommended that all parent-training/education programmes, whether group- or individual-based, should:
 - be structured and have a curriculum informed by principles of social-learning theory
 - include relationship-enhancing strategies
 - offer a sufficient number of sessions, with an optimum of 8–12, to maximise the possible benefits for participants
 - enable parents to identify their own parenting objectives
 - incorporate role-play during sessions, as well as homework to be undertaken between sessions, to achieve generalisation of newly rehearsed behaviours to the home situation
 - be delivered by appropriately trained and skilled facilitators who are supervised, have access to necessary ongoing professional development, and are able to engage in a productive therapeutic alliance with parents

- adhere to the programme developer's manual and employ all of the necessary materials to ensure consistent implementation of the programme.
- 1.4 Programmes should demonstrate proven effectiveness. This should be based on evidence from randomised controlled trials or other suitable rigorous evaluation methods undertaken independently.
- 1.5 Programme providers should also ensure that support is available to enable the participation of parents who might otherwise find it difficult to access these programmes.

2 Clinical need and practice

- 2.1 The term 'conduct disorders' in this appraisal refers to conduct disorder and oppositional defiant disorder (ODD). Conduct disorders are characterised by a repetitive and persistent pattern of antisocial, aggressive or defiant conduct. Such behaviour is more severe than ordinary childish mischief or adolescent rebelliousness, and it goes beyond isolated antisocial acts. To meet the definitions of conduct disorders in the Diagnostic and Statistical Manual, fourth edition (DSM-IV) and the International Classification of Diseases, tenth edition (ICD-10), at least three behavioural criteria (including aggression to people and/or animals, destruction of property, deceitfulness, theft and serious violation of rules) must have been exhibited in the preceding 12 months, with at least one criterion present in the last 6 months.
- 2.2 Conduct disorders vary widely in their presentation, and both DSM-IV and ICD-10 subdivide them into different types. DSM-IV divides conduct disorders into childhood onset (onset before 10 years of age), adolescent onset (onset at 10 years of age or older) and ODD, characterised by persistently hostile or defiant behaviour outside the normal range, but without aggressive or antisocial behaviour. ICD-10

divides conduct disorders into socialised conduct disorder, unsocialised conduct disorder, conduct disorders confined to the family context, and ODD.

- 2.3 Conduct disorders need to be professionally assessed by a child and adolescent psychiatrist, a paediatrician, a child clinical psychologist specialising in the area of behaviour disorders or another professional who has the appropriate competencies. This professional will make an assessment based on observations and interviews with the parents, teachers and children. Several checklists are used for rating symptoms in children. One of the most commonly used is the Child Behaviour Checklist (CBCL), which has between 100 and 113 items that describe specific behavioural and emotional problems. A child with conduct disorder would be expected to score over 65.
- 2.4 Conduct disorders are often seen in association with attention deficit hyperactivity disorder (ADHD). Depression, learning disabilities (particularly dyslexia), substance misuse and, less frequently, psychosis and autism can also coexist with conduct disorders.
- 2.5 There are a number of risk factors that can predispose children to conduct disorders. These factors can be environmental or associated with the family or the children themselves. Environmental risk factors include social disadvantage, homelessness, low socioeconomic status, poverty, overcrowding and social isolation. Family risk factors include marital discord, substance misuse or criminal activities, and abusive and injurious parenting practices. Children with a 'difficult' temperament, brain damage, epilepsy, chronic illness or cognitive deficits are also more prone to conduct disorders.
- 2.6 Conduct disorders constitute the largest single group of psychiatric disorders in children and adolescents and are the main reason for referral to child and adolescent mental health services. From community-based surveys, it is estimated that in the UK, the

prevalence of conduct disorders in children between the ages of 5 and 10 years is 6.9% for boys and 2.8% for girls, of which ODD represents 4.5% and 2.4%, respectively. In older children (11–16 years of age), the prevalence of diagnosed conduct disorders is slightly higher, at 8.1% for boys and 5.1% for girls, although ODD is less prevalent, at 3.5% and 1.7%, respectively.

- 2.7 Prognosis is particularly poor in early-onset conduct disorders, reinforcing the importance of early effective treatment. More than 60% of 3-year-olds with conduct disorders still exhibit problems at the age of 8 years if left untreated, and many problems will persist into adolescence and adulthood. Approximately half of children diagnosed with conduct disorders receive a diagnosis of antisocial personality disorders as adults, with others being diagnosed with psychiatric disturbances including substance misuse, mania, schizophrenia, obsessive-compulsive disorder, major depressive disorder and panic disorder.
- 2.8 Conduct disorders have a significant and detrimental impact on the quality of life of both the child and the family or carer(s). Children with conduct disorders are at high risk of experiencing future disadvantage through social exclusion, poor school achievement, long-term unemployment, juvenile delinquency and crime, and poor interpersonal relationships leading to family break-up in adulthood, divorce and abuse of their own children.
- 2.9 Conduct disorders are currently managed through a combination of interventions targeted at both the child and the family. Child-focused therapies include behavioural therapy, cognitive therapy, psychotherapy, social skills training, play therapy, music/art therapy and occupational therapy. Family therapy usually involves a therapist meeting with the whole family to explore personal interactions that could be contributing to or sustaining a child's problem behaviours.

However, many children with conduct disorders will not receive treatment because of the limited resources currently available, the high prevalence of the condition, and also the difficulty of engaging some families in treatment.

3 The technology

- 3.1 The main goals of parent-training/education programmes are to enable parents to improve their relationship with their child and to improve their child's behaviour. This is undertaken through behaviour-management principles grounded in social-learning theory. The term 'parent' applies to the main carer of the child, even though in some situations the child does not live with his or her parents. The term 'programme' indicates that the intervention is structured and that its key components are documented, allowing the programme to be reliably applied by different workers with appropriate training.
- 3.2 There are many different types of parent-training/education programme. Many are conducted primarily with the parents and involve no direct intervention with the child. However, in some individual programmes, both parent and child will be observed by the facilitator in order to see how the parents are relating to their child; the intervention can then be modified accordingly. There are two main types of programme, behavioural and relationship, but most combine elements of both. Behavioural programmes focus on teaching the parenting skills needed to address the causes of problem behaviours. Relationship programmes aim to help parents understand both their own and their child's emotions and behaviour and to improve their communication with the child. Relationship programmes include Adlerian programmes and parent-effectiveness training (PET).

- 3.3 Parent-training/education programmes tend to be focused and short term, usually 1.5–2 hours every week for 8–12 weeks. They can be held in a variety of settings including the hospital, clinic, community or home, and they can be conducted in groups of 6–12 participants or individually. The basic requirements are that programmes are provided in a congenial setting, accessible by parents and with crèche facilities for children and siblings. Programmes can be run by psychologists, therapists/counsellors, social workers or community workers, but in some cases voluntary agencies or parents who have been through programmes themselves can be involved. Parent-training/education programmes can also be self-administered in the home, using printed training materials or audiovisual training tools such as videos.
- 3.4 Some parent-training/education programmes contain specific additional elements to help address factors interfering with effective parenting, such as marital problems, depression and lack of adult social skills, as well as their children’s behaviour problems. Some programmes also combine parent training with other interventions such as child training.
- 3.5 The cost of parent-training/education programmes for conduct disorders depends on the type of programme offered. Current estimates of costs for group-based programmes range from £500 per family attending a clinic-based programme to £720 per family attending a community-based programme: both estimates are based on a 2-hour session each week for 10 weeks, in a group of 10 families. For individual programmes, costs range from £2000 per family for a clinic-based programme to £3000 per family receiving an individual programme in the home: these estimates are both based on a 2-hour session per week for 8 weeks.

4 Evidence and interpretation

The Appraisal Committee (appendix A) considered evidence from a number of sources (appendix B).

The scope specified that the population to be appraised was children diagnosed with conduct disorders (including ODD), aged up to 12 years or with a developmental age of 12 years or younger.

4.1 Clinical effectiveness

Assessment report – systematic reviews

4.1.1 The Assessment Group identified 16 reviews that assessed the effectiveness of one or more parent-training programmes, using a number of child and parent outcome measures. The majority of reviews (n = 13) focused specifically on the effectiveness of parent-training/education programmes. Two reviews included parent-training/education programmes as part of a review of a broader range of programmes, such as psychosocial treatments for conduct-disordered children, and one focused on family-based crime prevention programmes. Only one review addressed the medium- and long-term effectiveness of parent-training programmes.

4.1.2 Six of the reviews obtained a quality rating of at least 8 out of a possible 11. All six of these reviews showed that parent-training programmes are effective in improving children's behaviour. Three of these compared the effectiveness of different types of parent-training/education programme (behavioural versus relationship). The results showed that behavioural programmes are the most effective in modifying children's behaviour, as measured by a combination of parent-report outcome measures and independent observations of children's behaviour. One review showed that Adlerian programmes were effective, while another showed them to be ineffective. PET

programmes were found to be less effective in modifying children's behaviour than the behavioural programmes.

4.1.3 One review examined the medium- and long-term effectiveness of parent-training/education programmes for children's behaviour problems. Fourteen out of the 15 rigorous studies showed positive long-term effects (between 1 and 10 years) on children's behaviour, 11 of which were statistically significant. There was also evidence of effectiveness in improving parental well-being (for example, depression, self-esteem, parenting stress, parenting attitudes) in the medium to long term (between 1 and 4.5 years). For societal and health service outcomes (for example, delayed pregnancy, further education, delinquency, drug use, police contacts and court records), all studies demonstrated a positive direction of effect, but for many the change was not statistically significant. The findings of this review suggest that parent-training/education programmes are effective in the medium to long term in improving children's behaviour, but the results were based only on follow-up of intervention groups and so do not provide firm evidence of long-term effectiveness.

Assessment report – trials

4.1.4 The Assessment Group identified 25 randomised controlled trials (RCTs) that were relevant to the scope of the appraisal. Trials were included if it appeared likely that 50% or more of the children involved in the study had a conduct disorder or ODD defined by using a standardised screening checklist.

RCT results for programmes versus control

4.1.5 The 19 studies comparing parent-training/education programmes with a control showed a clear trend towards demonstrating the effectiveness of parent-training/education programmes. Based on a vote-counting approach, 50% of all outcomes assessed showed a

statistically significant improvement in child behaviour in the group receiving parent-training/education. The remaining outcomes (50%) were neutral (that is, no statistically significant difference was found between the control and the intervention arms of the trials). No study reported a statistically significant outcome that favoured the control over parent-training/education programmes.

- 4.1.6 More results in the larger studies showed a positive improvement in child behaviour, indicating that statistical significance had not been reached in some of the smaller studies. Studies with a higher quality score, or in which only independent observations were counted, showed considerably fewer statistically significant results. Self-administered programmes appeared the most effective, but this was based on relatively small sample sizes. The type of diagnostic criteria used also appeared to have an effect, although again the relatively small sample sizes make it difficult to draw any conclusions.
- 4.1.7 The Assessment Group point out that studies that measured more outcomes (or investigated more than one parent programme versus control) were given greater weight than studies that measured only one outcome, because all outcomes were counted individually.
- 4.1.8 Two studies that performed an additional follow-up assessment on the same outcomes (following post-treatment assessment) found that treatment effects were maintained (whether they were statistically significant or not). These longer-term follow-up times were fairly short (2–4 months).
- 4.1.9 Meta-analyses in the RCTs were limited to those outcomes that were reported consistently across a high proportion of trials. Outcomes were reported consistently for the Child Behaviour Checklist (CBCL), the Eyberg Child Behaviour Inventory (ECBI), and the Dyadic Parent–Child Interaction Coding System (DPICS). Meta-analyses in the RCTs were also limited to where sufficient outcome data were reported. Outcomes

for the data were combined by pooling the post-intervention scores and comparing the outcome across groups. Where studies included more than one eligible parent-training/education intervention arm (for example, self-administered parent training versus group parent training versus control), outcomes of the parent-training/education arms were pooled in order to obtain a single comparison (parent-training/education versus no parent-training/education) for that trial. Where studies provided parent-reported outcomes from both mothers and fathers, analyses were limited to maternal reports. Intention-to-treat (ITT) results were used where available. One study reported early drop-outs from the intervention group separately; these data were combined with the intervention group to provide an ITT estimate for this trial.

4.1.10 The results showed a consistent trend across studies for an improvement in scores for parent-training/education programmes compared with controls. The weighted mean difference was statistically significant in favour of the parent-training/education programme for ECBI frequency score (−4.2, 95% confidence interval [CI] −6.5 to −1.9), ECBI intensity score (−21.4, 95% CI −29.6 to −13.1) and DPICS score (−8.9, 95% CI −13.7 to −4.0). The difference on the CBCL was not statistically significant although it was in the same direction (−3.8, 95% CI −7.8 to 0.2).

RCT results for programmes versus an active comparator

4.1.11 Of the 16 studies relevant to the scope of the appraisal that compared parent-training/education programmes with an active comparator, there were no statistically significant differences in effectiveness between interventions in six of the studies. In nine studies, parent-training/education programmes were found to be statistically significantly more effective than an active comparator. In one study, no formal statistical analyses were performed.

4.1.12 When self-administered programmes (with no additional treatments) were compared with group or individual contacts, they appeared to be slightly less effective. However, given the overall heterogeneity between studies and the small sample sizes, the Assessment Group considered that the identified trends should be interpreted with caution, and that it was difficult to draw firm conclusions.

4.1.13 Overall treatment effects were maintained at longer-term follow-up (2 months to 3 years) and there was little or no difference in effectiveness between groups. One study noted some further statistically significant decreases in problem behaviour from the period between post-treatment and 1 year, and one study noted deterioration in school behaviour from the period between post-treatment and 1 year. As comparisons with control groups were not undertaken, it is difficult to assess how much of this treatment effect was a result of the initial treatment.

4.1.14 Given the heterogeneity in the parent-training/education programmes and the heterogeneity in the active comparators, the Assessment Group considered it inappropriate to undertake a meta-analysis to compare these approaches directly.

4.1.15 Thirteen studies had a loss to follow-up of 20% or more. The Assessment Group noted that participants who did not complete the studies were more likely to:

- be significantly younger
- come from a lower socioeconomic group
- have less social support
- have higher levels of life stress
- be significantly less educated

- be a mother with higher ratings on the Depression Anxiety Stress Scales (DASS)
- have higher levels of parental dysfunction.

Additional work

4.1.16 After completion of the Assessment Report, further analysis was undertaken to assess other trials relating to parent-training/education programmes that included direct work with the child. An additional 16 RCTs were appraised, bringing a total of 41 RCTs together in a new report. Further analysis, by the NICE Decision Support Unit (DSU), was also undertaken to report in more detail parental mental health outcomes of these trials.

4.1.17 All of the trials failed to meet at least one of the required quality criteria (or failed to provide sufficient detail). However, most provided clear, concise and relevant information and were methodologically sound in their interpretations. Thirty-five studies had groups that were comparable at baseline in at least one respect (demographics and/or pre-treatment behaviour measures). Thirty-six studies provided information to make a decision on whether there was comparable treatment of groups throughout the trial. Twenty-one studies provided some details about the blinding of outcome assessment. Seventeen studies had a loss to follow-up of less than 20% or provided no details on any loss. Six of the studies with a loss to follow-up of less than 20% reported an ITT analysis.

4.1.18 All the studies compared between two and six groups. Thirteen studies compared a parent-training/education programme with a waiting-list control (WLC) group only. Fourteen studies compared a parent-training/education programme with a different parent programme or another intervention (such as child training/education). Fourteen

studies compared two or more parent-training/education programmes with a WLC.

4.1.19 The majority of studies (n = 22) were conducted in the USA. Twelve were conducted in Australia, two in Canada, four in the UK and one in Ireland.

4.1.20 Sample sizes for individual intervention/control groups within studies ranged from 4 to 303. The most common method of recruitment was using a media advertisement or fliers in community centres, medical practices, kindergartens, schools or similar, where parents would respond by referring their children. In 18 studies, children were recruited by using a combination of parent, school, social and medical service referrals. In seven studies, children were recruited from referrals to outpatient psychiatry clinics. In five studies, recruitment was from referrals made by community agencies, schools or social services. Two studies reported no details of the sample selection.

4.1.21 Twenty-five studies used child behaviour scales such as ECBI, CBCL or other checklists to restrict inclusion to children that were above a cut-off point. Fourteen studies used the DSM-III, DSM-III-R or DSM-IV diagnoses of conduct disorders and/or ODD for the inclusion of their population. Studies were not excluded if children had comorbidities, providing that more than 50% of children had a behavioural disorder. Only one study reported on prior treatments, and in this study, all children were receiving methylphenidate. Many studies excluded children involved in any treatment at the time of recruitment.

4.1.22 The overall population features included similar proportions of one-parent and two-parent families. A large proportion of parents involved in the studies were white, but parents were from a wide range of socioeconomic backgrounds. Mothers were the primary focus of the trials, with only a small proportion of fathers also participating.

4.1.23 The studies included group-based (therapist-led) training, self-administered (by parent) programmes and individual one-to-one sessions. The person delivering the interventions varied between studies and included people educated to graduate, masters or PhD level, nurses and school counsellors. Eleven studies noted few details on who delivered the intervention.

Results for child behaviour outcome

4.1.24 No results using the 'vote-counting' method previously used in the original Assessment Report were reported in the DSU report. Meta-analyses in the RCTs were limited to those outcomes that were reported consistently across a high proportion of trials. These were the ECBI, CBCL and DPICS, and where sufficient outcome data were reported. In recalculating the analyses, the DSU report compared the change in scores between pre- and post-treatment across groups. The DSU report examined the results only from mothers, using the CBCL and ECBI. Although it was recognised that fathers did participate in some studies, it was more common to report data on mothers alone. Several studies reported data on more than one intervention. In all cases, the more standard intervention was chosen in preference to interventions that included additional parent-training components.

4.1.25 Seven studies provided data on the change in total CBCL score between pre- and post-treatment. The heterogeneity test was not statistically significant, but these were very small trials and there was little power to investigate heterogeneity. The combined weighted mean difference between the parent-training and control groups was 5.96 (95% CI 3.40 to 8.52; $Z = 4.56$, $p < 0.00001$; test for heterogeneity = 4.49, $p = 0.61$), indicating a statistically significant improvement in total CBCL score from pre- to post-treatment in the parent-training group compared with the control.

- 4.1.26 Fifteen studies provided data on the change in ECBI intensity score between pre- and post-treatment. The heterogeneity test was not statistically significant, but these were very small trials and there was little power to investigate heterogeneity. The combined weighted mean difference between the parent training and control was 21.71 (95% CI 17.34 to 26.08; $Z = 9.74$, $p < 0.00001$; test for heterogeneity = 20.17, $p = 0.12$), indicating a statistically significant improvement in ECBI intensity score from pre- to post-treatment in the parent-training group compared with the control.
- 4.1.27 Eleven studies provided data on the change in ECBI frequency score between pre- and post-treatment. The heterogeneity test was not statistically significant, but these were very small trials and there was little power to investigate heterogeneity. The combined weighted mean difference between the parent-training and control groups was 5.57 (95% CI 4.10 to 7.04; $Z = 7.41$, $p < 0.00001$; test for heterogeneity = 12.17, $p = 0.27$), indicating a statistically significant improvement in ECBI frequency score from pre- to post-treatment in the parent-training group compared with the control. One study favoured the control group with a weighted mean difference of -2.00 (95% CI -11.33 to 7.33).
- 4.1.28 Three studies provided data on the change in DPICS child deviance total score between pre- and post-treatment. The heterogeneity test was not statistically significant, but these were very small trials and there was little power to investigate heterogeneity. The combined weighted mean difference between the parent-training and control groups was 5.74 (95% CI -0.49 to 11.97; $Z = 1.80$, $p = 0.07$; test for heterogeneity = 0.55, $p = 0.76$), in favour of parent training.
- 4.1.29 There was no evidence from the trials used in the meta-analysis for a differential effect between group and individual programmes. Only one trial included a programme that had a parent working directly with his

or her child, and therefore the DSU did not undertake separate analyses.

Results for parental mental health outcome

4.1.30 A range of outcome measures reported across the trials were related to stress, depression and anxiety in parents. Meta-analyses were undertaken using the Beck Depression Inventory (BDI) (n = 3), Depression–Anxiety Stress Scale (DASS) (n = 5) and Parent Stress Index (n = 8), because these were the most consistently reported. The DSU chose to examine these measures from using just the mothers' results because it was more common to report the mothers' data alone.

4.1.31 Of the seven measures that were meta-analysed from four trials, only one parental state measure (the DASS stress score) had a statistically significant overall effect ($Z = 2.79$, $p = 0.005$) with a weighted mean difference between the parent-training and control groups of 4.47 (95% CI 1.33 to 7.62), indicating a statistically significant improvement in the DASS stress score from pre- to post-treatment in the parent-training group compared with the control. For the other measures, although there were no statistically significant results, there were overall trends in favour of reductions in specific psychological difficulties (for example, depression, anxiety and stress) following parent training. However, these findings were limited by the small number of studies that could be included.

Summary

4.1.32 The results of the child behaviour outcomes showed a consistent trend across studies for an improvement in all measures for parent-training/education compared with no-treatment controls (WLC). The pooled results for the parental mental health outcomes showed a trend towards improvement in all measures for parent-training/education compared with no-treatment controls (WLC).

4.2 Cost effectiveness

4.2.1 Two published economic evaluations were found; neither was from the UK and neither included quality-of-life information. Five costing studies were found that provided estimates of the costs of parent-training/education programmes from a UK perspective. Two consultees included costing information in their submissions, although neither was for typical training programmes. The Assessment Group undertook a 'bottom-up' costing exercise and used this information to estimate the cost effectiveness of parent-training/education programmes based on assumed quality-of-life gains.

Published evaluations

4.2.2 Of the published evaluations, one found that a large-group community-based parent-training/education programme produced a greater improvement in behaviour scores at a statistically significantly lower cost than an individual clinic-based programme. The other evaluation found no statistically significant differences in effectiveness between individual clinic-based, individual home-based and group clinic-based programmes. When operation costs alone were considered, group delivery was the cheapest option.

4.2.3 The five costing studies were of little use; two provided little detail on the methods and sources of the costing data, one was retrospective and subject to recall bias, one was based on a very small sample size, and one considered only a small proportion of the costs that fall on the NHS.

Submission evaluations

4.2.4 The Triple P – Positive Parenting Programme submission included a cost-benefit analysis evaluating the introduction of a treatment and prevention programme to the entire population of children aged 2–12 years. The analysis suggested that the programme would pay for

itself by averting cases of conduct disorder that incur a high cost. The analysis does have some limited applicability because the programmes are not targeted only at children with a diagnosis of conduct disorders but also incorporate other levels of intervention with more of a prevention focus.

- 4.2.5 The Mellow Parenting Programme submission included a costing that covered an intensive 4-month package with both parents and children attending for a whole day every week. Estimated costs ranged from £801 to £2539 per family depending on the setting.

Assessment Group evaluation

- 4.2.6 The Assessment Group costed a typical parent-training/education programme consisting of a 2-hour session every week for 10 weeks. Costs included, where appropriate, staff time, supervision, travel, crèche facilities, course packs and room hire. An individual home-based programme was estimated to cost £3839. Group-based programmes were assumed to include eight families per group and were estimated to cost £899 in a community-based setting and £629 in a clinic-based setting.
- 4.2.7 In the absence of information on the impact of parent-training/education programmes on quality of life, the Assessment Group estimated cost effectiveness based on assumed improvements in quality of life. Assuming a typical programme improves quality of life by 5%, incremental cost-effectiveness ratios (ICERs) range from £12,600 per quality-adjusted life year (QALY) for a group clinic-based programme, to £76,800 per QALY for an individual home-based programme. Assuming a typical programme improves quality of life by 10%, ICERs range from £6300 per QALY for a group clinic-based programme to £38,400 per QALY for an individual home-based programme.

Additional work

- 4.2.8 The DSU found that the published natural history models for conduct disorders were not suited for economic purposes. Additional research conducted by the DSU did not lead to the identification of appropriate utility weights associated with conduct disorders, and it was unable to link outcomes recorded in the trials to appropriate utility scores.
- 4.2.9 Two studies on the costs associated with mental health services for antisocial behaviour were identified. One published study of the long-term financial costs of social exclusion of antisocial children collected data on service use for education, health, foster and residential care, benefits and crime to 28 years of age. The excess cost to all services of conduct disorders compared with no problems was estimated to be £63,000. The excess cost for the conduct disorder group compared with the conduct problem group (lower score on CBCL, 60–65) was £24,324.
- 4.2.10 A second unpublished study reported mean total annual costs for a cohort of 80 children aged 3–8 years, who were referred to the mental health services because of antisocial behaviour. Costs were reported for health, social care, voluntary and education services. The study did not report costs associated with crime or potential adult healthcare costs (for example, substance misuse, sexually transmitted diseases, teenage pregnancies and antisocial personality disorder). The mean annual total service cost was £1277 (standard deviation = £2309). NHS service use accounted for 37% of this, 49% was attributable to education, 13% to the voluntary sector and 1% to social services.

DSU economic evaluation

- 4.2.11 In the absence of a comprehensive natural history model of the condition that was suitable for economic evaluation, the DSU modelled a simple three-health-state categorisation that has been reported in the

literature: normal behaviour, conduct problems and conduct disorders. Using the T-score of the CBCL, an initial distribution of the population across these three states was specified, and annual costs were assigned to each state. They included costs to the NHS and to social and education services. Using the estimate of effectiveness taken from the CBCL meta-analysis (5.96, 95% CI 3.40 to 8.52), the expected change in the CBCL scores of children with conduct disorders and conduct problems attributable to parent-training/education programmes could be estimated. The time horizon for the analysis was 1 year.

4.2.12 The estimate of the annual costs was updated to 2004 costs. The costs of treating a child with conduct problems, whose parents have not undertaken a parent-training/education programme, are: £184 for the NHS, £244 for education services, £66 for voluntary services and £3 for social services. For conduct disorders, the costs per child per annum are: £531 for the NHS, £704 for education services, £191 for voluntary services and £9 for social services.

4.2.13 It was assumed that when parent-training/education programmes are being undertaken, the mean CBCL score in both conduct problems and disorder is reduced in line with the results from the meta-analysis. The model calculated whether the predicted reduction in CBCL score was sufficient to change the category from conduct disorders to conduct problems, or from conduct problems to no conduct problems. Thus, the model estimated the cost of providing programmes with respect to the costs that are avoided as a consequence of its use.

4.2.14 Four costs for parent-training/education programmes were inputted into the model, based on the Assessment Group's assumptions and comments received from experts on these assumptions. For group clinic-based and group community-based programmes, assuming 10 families in each group receiving 2 hours of training per week for 10 weeks, costs used were £500 and £720 respectively. For individual

home-based and individual clinic-based programmes, assuming 2 hours of training per week for 8 weeks, costs inputted were £3000 and £2000 respectively.

4.2.15 A probabilistic sensitivity analysis was undertaken to take into account the uncertainty regarding the input parameters in the model.

4.2.16 Using the four costs listed above, compared with no intervention, the mean incremental cost of parent-training/education programmes in improving a child's behaviour from conduct disorders to a better state (conduct problems or normal behaviour) is £90 for group community-based, £1380 for individual home-based, and £2400 for individual clinic-based programmes, and a saving of £70 per family for group clinic-based programmes.

Summary

4.2.17 The analysis undertaken reports the net cost of parent-training/education programmes and suggests that for children with conduct disorders, these programmes are cost saving. The vast majority of the cost savings would accrue to the education services and the health services. It was noted that the study used to provide the annual costs falling on the various agencies did not report either on the youth justice service or on potential cost savings for adult healthcare. The cohort in the study also had an unusually low level of usage and consequently, a low cost to social services. There was no evidence from the trials used in the meta-analysis for a differential effect between group and individual programmes. It was shown that group programmes cost less than individual programmes and therefore these programmes are likely to result in greater cost savings to the various agencies.

4.3 Consideration of the evidence

4.3.1 The Committee reviewed the evidence available on the clinical and cost effectiveness of parent-training/education programmes in the management of children with conduct disorders. It considered evidence on the nature of the condition and the value placed by users on the benefits of parent-training/education programmes from clinical experts and people who represent the parents/carers of children with conduct disorders. It was also mindful of the need to ensure that its advice took account of the efficient use of NHS resources.

4.3.2 At the first committee meeting, following full discussion of the Assessment Report and hearing the testimony of the clinical experts, the Committee concluded that additional evidence and analysis was needed regarding:

- parent-training/education programmes that include direct work with the child
- the effects of parent-training/education programmes on parental mental health
- the impact of conduct disorder on the lives of children and their parents in both the short and longer term, preferably in the form of a natural history model of the condition
- the feasibility of attaching a utility to improvements in children's health-related quality of life resulting from the parent-training/education programmes
- an economic evaluation linking short-term with longer-term health and cost outcomes
- the cost offsets outside the health sector, where a large potential economic benefit of parent-training/education programmes could lie.

4.3.3 At the second committee meeting, the Committee discussed the additional evidence base that had been made available for parent-

training/education programmes. It considered that two of the child behaviour outcome measures, the CBCL and ECBI, showed that parent-training programmes were statistically more effective compared with a waiting list control in treating children with conduct disorders. It also considered that for the DPICS, there was a strong trend in favour of parent-training/education programmes.

- 4.3.4 In relation to parental mental health, the Committee noted a trend in favour of improved maternal mental health indices for the parent-training/education intervention, but it was aware that only one of the measures had achieved statistical significance.
- 4.3.5 The Committee was concerned that, for both child behaviour and parental mental health outcome measures, only a small number of trials had been included in the meta-analyses. This was because of the lack of consistency of measures used across trials and the lack of sufficient outcome data reported. However, the Committee heard from the experts that the results reported were clinically meaningful and that because the meta-analysis had been conducted on the CBCL total score (and not the CBCL externalising score), there was a possibility of an underestimation of the effect of the intervention on the child behaviour outcome.
- 4.3.6 The Committee also noted that there was no difference in the effects of programmes administered to individuals or to a group. The experts agreed that this was so. They informed the Committee that it was best standard practice to prefer individual-based programmes only in situations where the parents are particularly difficult to engage with and/or the complexities of the family's needs cannot be met by group-based parent-training/education programmes.
- 4.3.7 The Committee discussed the issue of generalisability of the trial results to UK practice, because it was aware that the majority of trials were conducted outside the UK and had not included families from a

wide range of ethnic backgrounds. The Committee heard from the experts that parent-training/education programmes were generalisable, and they heard from the experts that there was good evidence from clinical practice that the programmes are equally effective across a range of cultures and communities.

- 4.3.8 The Committee noted that the DSU had been unable to construct a natural history model of conduct disorder for the purpose of cost-effectiveness evaluation. It heard testimony from the experts that data on the long-term effects of conduct disorder do exist and that around 40% of children with conduct disorder became young offenders later in life. In addition, almost all young offenders had a past history of conduct disorders during childhood. The Committee was also persuaded that the effectiveness of parent-training/education programmes was sustained at 3-year follow-up and could last for longer. The Committee considered, therefore, that because the DSU model used a 1-year time horizon, it would probably have underestimated the true cost effectiveness of the intervention.
- 4.3.9 The Committee noted that the DSU had been unable to identify evidence of direct health-related quality effects of parent-training/education programmes in the management of children with conduct disorders. It was, however, convinced of the importance of parent-training/education programmes in improving child behaviour and allowing children to have less impairment of everyday/social functioning. It was convinced that this would contribute to improvements in quality of life for the child. Additionally, the observed trend towards improvement in maternal mental health would also contribute to overall improvement in quality of life for both child and parent. The Committee therefore concluded that, given the one-off cost of parent-training/education programmes, in the majority of cases, relatively small improvements in terms of quality of life for both the

child and the parent would be needed to make these programmes cost effective.

4.3.10 The Committee considered the cost offsets of parent-training/education programmes across different agencies that might benefit from their use. It noted from the analyses undertaken that for group clinic-based and group community-based programmes, the model indicated that the mean additional cost of these programmes was cost neutral across all of the agencies involved. The Committee also noted that the principal cost savings accrued to the education services (49%) and health services (37%). However, it was also persuaded that the model could have underestimated the cost savings to social services, and did not consider the potential longer-term savings to the youth justice service and further savings to the NHS from potential adult healthcare costs. The Committee was persuaded therefore that a wide variety of public services stood to benefit from the appropriate implementation of parent-training/education programmes.

4.3.11 The Committee considered the piece of qualitative work conducted by the SCIE and NICE project team, and it discussed with the experts what should be considered as the essential characteristics of an effective programme. The Committee was convinced that parent-training/education programmes would result in the achievement of substantial and sustained changes in behaviour in children with conduct disorders, but only when the programmes contained certain essential characteristics. The Committee noted that the Webster-Stratton Incredible Years Programme and the Triple P – Positive Parenting Programme are examples that demonstrate these essential characteristics and are sufficiently effective with regard to cost. Thus, programmes should:

- be structured and have a curriculum informed by principles of social-learning theory. The content should incorporate learning

opportunities that reflect social-learning approaches, such as skills rehearsal and role play, watching recorded vignettes as triggers for discussion of alternative parenting strategies, and preparation and review of homework

- include relationship-enhancing strategies such as play and praise, and effective discipline strategies
- offer sufficient sessions, with an optimum of 8–12, to maximise the possibility of participants deriving benefit
- not be didactic, but should enable parents to identify their own parenting objectives
- incorporate role-play during sessions, as well as homework to be undertaken between sessions, to achieve generalisation of newly rehearsed behaviours to the home situation
- be delivered by appropriately trained and skilled facilitators¹ who are supervised, have access to necessary ongoing professional development and are to engage in a productive therapeutic alliance with parents.
- adhere to the programme developer's manual and employ all of the necessary materials to ensure consistent implementation of the programme.

4.3.12 The Committee was of the view that programmes should provide data on proven effectiveness, which would normally be based on RCT evidence. However, there was discussion about the robustness of alternative forms of outcome evaluation, which may be more appropriate to the social care sector, and the potential accreditation of programmes. The Committee was persuaded that these alternative

¹ Facilitators should be accredited as meeting relevant standards (such as the National Occupational Standards for Work with Parents).

forms of outcome evaluation should be undertaken independently of the programme providers.

- 4.3.13 In addition, programme providers should ensure that support is available to enable participation of those parents who could find it difficult to access these programmes and yet could have the greatest need (for example, by providing an accessible venue, helping with transport, and providing support for any caring responsibilities that might hinder participation).
- 4.3.14 The Committee concluded that parent-training/education programmes that contain these essential elements were clinically effective. Additionally, group-based programmes offered the best value for money. Therefore, group-based programmes containing the stated essential elements should be recommended for the management of children with conduct disorders, with individual programmes containing the same essential elements as an option only in situations where there are particular difficulties in engaging with the parents and/or the complexities of the family's needs cannot be met by group-based parent-training/education programmes.
- 4.3.15 The Committee noted that the national delivery of these group-based parent-training/education programmes would benefit from coordination and integrated financial support across health, education, social care, youth justice and voluntary sector agencies, in line with current policy.

5 Implementation

- 5.1 The Healthcare Commission assesses the performance of NHS organisations in meeting core and developmental standards set by the Department of Health in 'Standards for better health' issued in July 2004. The Secretary of State has directed that the NHS provides funding and resources for medicines and treatments that have been recommended by NICE technology appraisals normally within 3 months from the date that NICE publishes the guidance. Core standard C5 states that healthcare organisations should ensure they conform to NICE technology appraisals.
- 5.2 'Healthcare Standards for Wales' was issued by the Welsh Assembly Government in May 2005 and provides a framework both for self-assessment by healthcare organisations and for external review and investigation by Healthcare Inspectorate Wales. Standard 12a requires healthcare organisations to ensure that patients and service users are provided with effective treatment and care that conforms to NICE technology appraisal guidance. The Assembly Minister for Health and Social Services issued a Direction in October 2003 which requires Local Health Boards and NHS Trusts to make funding available to enable the implementation of NICE technology appraisal guidance, normally within 3 months.

5.3 NICE has developed tools to help organisations implement this guidance (listed below). These are available on our website (www.nice.org.uk/TA102).

- Slides highlighting key messages for local discussion.
- Costing report and costing template to estimate the savings and costs associated with implementation.
- Implementation advice on how to put the guidance into practice and national initiatives which support this locally.
- Audit criteria to monitor local practice (see appendix C).

6 Recommendations for further research

- 6.1 Research is needed examining the impact of parent-training/education programmes on the quality of life of children with conduct disorders, their parents, carers, siblings and the wider community.
- 6.2 Qualitative research looking at parental satisfaction and preference is needed. This is to obtain information to enable programmes to be sensitised to the needs of black and minority ethnic families and more socially excluded families, and possibly to decrease poor attendance/concordance.
- 6.3 RCTs of UK-developed parent-training/education programmes are needed.
- 6.4 A 'practice review' of parent-training/education programmes within social care contexts is needed in order to investigate a wider range of sources other than RCTs to identify good practice.

- 6.5 Research is needed examining the long-term impact of parent-training/education programmes on child behaviour and outcomes, such as educational achievement and criminality.
- 6.6 Research examining the impact of parent-training/education programmes on parents with learning disabilities is needed.
- 6.7 Research examining the impact of parent-training/education programmes on parents with children with learning disabilities is needed.
- 6.8 Research on consistent implementation of programmes is needed.
- 6.9 Similar outcome measures should be used in trials of these programmes to allow comparability of programmes.

7 Related guidance

- 7.1 NICE has issued the following related technology appraisal guidance:
 - Methylphenidate, atomoxetine and dexamfetamine for attention deficit hyperactivity disorder (ADHD) in children and adolescents (review). *NICE technology appraisal guidance* no. 98 (2006). Available from: www.nice.org.uk/TA098
- 7.2 NICE is in the process of developing the following guidance:
 - Attention deficit hyperactivity disorder. *NICE clinical guideline* (publication expected February 2008).

8 Review of guidance

- 8.1 The review date for a technology appraisal refers to the month and year in which the Guidance Executive will consider whether the technology should be reviewed. This decision will be taken in the light of information gathered by the Institute, and in consultation with consultees and commentators.
- 8.2 The guidance on this technology will be considered for review in September 2007 because of the further research that is needed.

Andrew Dillon
Chief Executive
July 2006

Appendix A. Appraisal Committee members and NICE/SCIE project team

A. Appraisal Committee members

The Appraisal Committee is a standing advisory committee of the Institute. Its members are appointed for a 3-year term. A list of the Committee members who took part in the discussions for this appraisal appears below. The Appraisal Committee meets twice a month except in December, when there are no meetings. The Committee membership is split into two branches, with the chair, vice-chair and a number of other members attending meetings of both branches. Each branch considers its own list of technologies and ongoing topics are not moved between the branches.

Committee members are asked to declare any interests in the technology to be appraised. If it is considered there is a conflict of interest, the member is excluded from participating further in that appraisal.

The minutes of each Appraisal Committee meeting, which include the names of the members who attended and their declarations of interests, are posted on the NICE website.

Professor A E Ades

MRC Senior Scientist, MRC Health Services Research Collaboration,
Department of Social Medicine, University of Bristol

Dr Tom Aslan

General Practitioner, Stockwell, London

Professor David Barnett (Chair)

Professor of Clinical Pharmacology, University of Leicester

Dr Sheila Bird

MRC Biostatistics Unit, Cambridge

Mrs Elizabeth Brain

Independent Patient Advocate

Professor Gary Butler

Professor of Paediatrics, University of Reading/Royal Berkshire Hospital

Dr Karl Claxton

Health Economist, University of York

Dr Richard Cookson

Senior Lecturer in Health Economics, School of Medicine Health Policy and Practice, University of East Anglia

Professor Christopher Eccleston

Director Pain Management Unit, University of Bath

Professor Terry Feest

Professor of Clinical Nephrology, Southmead Hospital

Ms Alison Forbes

Lay Representative, Health Consultant Associate, Eden Insight

Professor John Geddes

Professor of Epidemiological Psychiatry, University of Oxford

Mr John Goulston

Director of Finance, St Bartholomew's and the London NHS Trust

Mr Adrian Griffin

Health Outcomes Manager, Johnson & Johnson Medical Ltd

Dr Elizabeth Haxby

Lead Clinician in Clinical Risk Management, Royal Brompton Hospital

Dr Rowan Hillson

Consultant Physician, Diabeticare, The Hillingdon Hospital

Dr Catherine Jackson

Clinical Lecturer in Primary Care Medicine, Alyth Health Centre, Angus, Scotland

Mr Muntzer Mughal

Consultant Surgeon, Lancashire Teaching Hospitals NHS Trust

Ms Judith Paget

Chief Executive, Caerphilly Local Health Board, Wales

Dr Katherine Payne

Health Economist, The North West Genetics Knowledge Park, The University of Manchester

Dr Ann Richardson

Independent Patient Advocate

Mrs Kathryn Roberts

Nurse Practitioner, Hattersley Group Practice, Cheshire

Professor Philip Routledge

Professor of Clinical Pharmacology, College of Medicine, University of Wales, Cardiff

Dr Debbie Stephenson

Head of HTA Strategy, Eli Lilly and Company

Professor Andrew Stevens (Vice-Chair)

Professor of Public Health, University of Birmingham

Dr Cathryn Thomas

General Practitioner, & Senior Lecturer, Department of Primary Care & General Practice, University of Birmingham

Dr Norman Vetter

Reader, Department of Epidemiology, Statistics and Public Health, College of Medicine, University of Wales, Cardiff

Dr Paul Watson

Medical Director, Essex Strategic Health Authority

Dr David Winfield

Consultant Haematologist, Royal Hallamshire Hospital, Sheffield

B. NICE and SCIE project team

Each technology appraisal is assigned to a team consisting of one or more health technology analysts (who act as technical leads for the appraisal), a technical advisor and a project manager.

Joanna Richardson

Technical Lead, NICE

Nick Gould

Technical Lead, SCIE

Alec Miners

Technical Advisor, NICE

Alana Miller

Project Manager, NICE

Appendix B. Sources of evidence considered by the Committee

- A The assessment report for this appraisal was prepared by West Midlands Health Technology Assessment Collaboration (WMHTAC), Department of Public Health and Epidemiology, The University of Birmingham.

Taylor R, Hyde C, Raftery J et al., *The effectiveness and cost-effectiveness of parent-training/education programmes for the treatment of conduct disorder, including oppositional defiant disorder, in children*. April 2004.

An additional report was prepared by the Decision Support Unit (DSU), based at the School of Health and Related Research at the University of Sheffield.

McCabe C, Sutcliffe P, Kalthenthaler E, *Parent-training programmes in the management of conduct disorder: a report from the NICE Decision Support Unit and the SchARR Technology Assessment Group*. July 2005.

An additional paper was prepared by the technical leads for this appraisal from the Social Care Institute of Excellence (SCIE) and the National Institute for Health and Clinical Excellence (NICE).

Gould N, Richardson J, *Characteristics that make a 'good' parent-training/education programme*. A report from SCIE and NICE. July 2005.

B The following organisations accepted the invitation to participate in this appraisal. They were invited to make submissions and comment on the draft scope, the Assessment Report and the Appraisal Consultation Document (ACD). Consultee organisations are provided with the opportunity to appeal against the Final Appraisal Determination.

I Manufacturers/sponsors:

- Mellow Parenting
- Parents Plus Programme (Ireland)
- Triple P – Positive Parenting Programme (Australia)
- Webster-Stratton Programmes (USA)

II Professional/specialist and patient/carer groups:

- ADHD UK Alliance
- Barnardo's
- Barnardo's Cymru
- Contact a Family
- Fostering Network
- Gingerbread
- Hyperactive Children's Support Group
- Mental Health Foundation
- National Attention Deficit Disorder Information and Support Service
- National Children's Homes
- National Family and Parenting Institute
- National Society for the Prevention of Cruelty to Children (NSPCC)
- Parenting Education and Support Forum
- Parentline Plus
- Positive Parenting

- Supporting Others through Volunteer Action (SOVA)
- Strengthening Families, Strengthening Communities (REU)
- Voice for the Child in Care
- Association for Family Therapy
- Association for Family Therapy and Systemic Practice in the UK
- British Psychological Society
- Challenging Behaviour Foundation
- Child Psychotherapy Trust
- College of Occupational Therapists
- Community Practitioners' and Health Visitors' Association
- Institute of Family Therapy
- Mental Health Nurses Association
- Royal College of GPs
- Royal College of Nursing
- Royal College of Paediatrics and Child Health
- Royal College of Psychiatrists
- UK Council for Psychotherapy
- Young Minds
- Association of Directors of Social Services
- British Association of Social Workers
- British Association for Adoption and Fostering
- Care Council for Wales
- Foster Care Cooperative
- General Social Care Council
- Social Emotional and Behavioural Difficulties Association
- Caspari Foundation
- National Association for Special Educational Needs
- Children and Young People's Unit
- Children and Young People's Framework Partnerships in Wales

- Department for Education and Skills
- Department of Health
- Derbyshire, Dales and South Derbyshire Primary Care Trust
- Newcastle-under-Lyme Primary Care Trust
- Race Equality Unit
- Southwark Social Services Department
- Suffolk County Council Social Services Department
- Welsh Assembly Government
- Youth Justice Board for England and Wales

III Commentator organisations (without the right of appeal):

- British Medical Association
- Health Development Agency
- National Collaborating Centre for Mental Health
- NHS Confederation
- NHS Information Authority
- NHS Purchasing and Supplies Agency
- C'mon Everybody, Sheffield
- Campbell Collaboration Social Welfare Group
- Centre for Evidence-Based Social Services
- Cochrane Collaboration Developmental, Psychosocial and Learning Problems Review Group
- Disorders of Childhood Interdisciplinary Research Group, Institute of Psychiatry
- Health Services Research Unit, Department of Public Health, University of Oxford
- Joseph Rowntree Foundation
- JUC/SWEC Research Subcommittee
- Research in Practice
- NHS Quality Improvement for Scotland

- C The following individuals were selected from clinical specialist and patient advocate nominations from the professional/specialist and patient/carer groups. They participated in the Appraisal Committee discussions and provided evidence to inform the Appraisal Committee's deliberations. They gave their expert personal view on parent-training/education programmes in the management of children with conduct disorders by attending the initial Committee discussion and/or providing written evidence to the Committee. They were also invited to comment on the ACD.
- Dr Judy Hutchings, Director, Sure Start Parent Support Research Programme and Incredible Years Wales Centre
 - Dr Stephen Scott, Reader in Child Health & Behaviour, Consultant Child & Adolescent Psychiatrist, Institute of Psychiatry, South London and Maudsley NHS Trust
 - Mrs Dot Yellen, Area Children's Services Manager, NSPCC Tees Valley, York and North Yorkshire
 - Christine Bidmead, Training Facilitator, Centre for Parent and Child Support, South London and Maudsley NHS Trust
 - Ms Kate Smith, Children's Service Manager, Barnardo's Blackpool Project
 - Ms Julie Oldman, Team Leader, Barnardo's Blackpool Project
- D There was no direct parent involvement at the Appraisal Committee meetings. However, a video was produced by NICE staff and presented at the initial committee meetings. The video included six parents who had completed a parent-training/education programme run by Barnardo's in Blackpool. We would like to thank the parents and the Barnardo's staff involved in the production.

Appendix C. Detail on criteria for audit of the use of parent-training/education programmes in the management of children with conduct disorders

Possible objectives for an audit

An audit on the appropriate and effective use of parent-training/education programmes in the management of children with conduct disorders could be carried out to ensure the following.

- Parents/carers of children with conduct disorders are referred to group-based or individual-based parent-training/education programmes.
- Parent-training/education programmes to which parents/carers of children with conduct disorders are referred meet essential criteria.

Possible children to be included in the audit

An audit on the first objective above could be carried out on all children found to have a conduct disorder in a time period suitable for audit, for example, 6 months.

An audit on the second objective above could be carried out on all group-based or individual-based parent-training/education programmes to which parents/carers of children determined to have a conduct disorder were referred in a time period suitable for audit, for example, 6 months.

Measures that could be used as a basis for an audit

The measures that could be used in an audit of parent-training/education programmes in the management of children with conduct disorders are as follows.

Criterion	Standard	Exception	Definition of terms
<p>1. The parent/carer of a child with a conduct disorder is referred to a group-based parent-training/education programme.</p>	<p>100% of children found to have a conduct disorder.</p>	<p>A. There is no group-based parent-training/education programme available in the locality where the child lives.</p> <p>B. The parent/carer of a child with a conduct disorder is referred to an individual-based training/education programme when either of the following happens:</p> <ul style="list-style-type: none"> a. there are particular difficulties in engaging with the parents or b. a family's needs are too complex to be met by group-based parent-training/education programmes. 	<p>'Conduct disorder' refers to conduct disorder and oppositional defiant disorder (ODD). To meet DSM-IV and ICD-10 definitions of conduct disorder, at least three behavioural criteria (including aggression to people and/or animals, destruction of property, deceitfulness, theft and serious violation of rules) have to be exhibited in the preceding 12 months, with at least one criterion present in the last 6 months.</p> <p>Professional staff will need to agree locally on how to document the finding that the child has a conduct disorder and that the parent/carer of the child was referred to a group-based parent-training/education programme, for audit purposes.</p> <p>Professional staff also will need to agree locally on how to document the difficulties in engaging with parents or the complexities of the family's needs that cannot be met by group-based</p>

			<p>programmes as referred to in the exception, for audit purposes.</p> <p>'Parent' applies to the main carer of the child, even though in some situations the child does not live with his or her parents.</p> <p>'Programme' indicates that the intervention is structured and its key components are documented, allowing the programme to be reliably applied by different workers with appropriate training (see measure 3 below).</p>
<p>2. The parent-training/ education programme to which the parent/carer of a child with a conduct disorder is referred meets all of the following:</p> <p>a. is structured and</p> <p>b. has a curriculum informed by the principles of social-learning theory and</p> <p>c. includes relationship-enhancing strategies and</p> <p>d. offers a sufficient number of sessions and</p> <p>e. enables parents to identify their own parenting objectives and</p>	<p>100% of group-based and individual-based parent-training/ education programmes to which the parents/ carers of children with conduct disorders are referred, for 2a–2m.</p>	<p>None.</p>	<p>This measure applies to both group-based and individual-based parent-training/education programmes. Professional staff will need to agree locally on how the following are defined for audit purposes: 'structured programme'; 'curriculum informed by the principles of social-learning theory'; 'relationship-enhancing strategies', 'appropriately trained and skilled facilitators'; 'supervision of facilitators'; 'productive therapeutic alliance with parents' and 'programme</p>

<ul style="list-style-type: none"> f. incorporates role-play during sessions and g. incorporates homework to be undertaken between sessions and h. is delivered by appropriately trained and skilled facilitators and i. is delivered by facilitators who are supervised and j. is delivered by facilitators who have access to necessary ongoing professional development and k. is delivered by facilitators who are able to engage in a productive therapeutic alliance with parents and l. adheres to the programme developer's manual and m. uses all necessary programme materials. 			<p>developer's manual'. Social-learning approaches can include skills rehearsal and role play, watching recorded vignettes as triggers for discussion of alternative parenting strategies, and preparation and review of homework. Relationship-enhancing strategies can include play and praise, and effective discipline strategies. 'Sufficient number of sessions' means an optimum of 8 to 12 to maximize the possible benefits for participants. 'Homework' has the purpose of achieving generalisation of newly rehearsed behaviours to the home situation. Facilitators should be accredited as meeting relevant standards (such as the National Occupational Standards for Work with Parents). The programme developer's manual and materials are intended to ensure consistent implementation of the programme.</p>
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3. The parent-training/education programme to which the parent/carer of a child with a conduct disorder is referred demonstrates proven effectiveness.	100% of group-based and individual-based parent-training/education programmes to which the parents/carers of children with conduct disorders are referred.	None	'Proven effectiveness' is based on evidence from randomised controlled trials or other suitable rigorous evaluation methods undertaken independently. Professional staff will need to agree locally on what constitutes rigorous evaluation methods, undertaken independently, such as an audit.
4. Support is available to enable parents who could find it difficult to access the programme to participate.	100% of parent-training/education programmes to which the parents/carers of children with conduct disorders are referred.	None	Professional staff will need to agree locally on how 'support' is defined for audit purposes and the evidence needed for audit purposes. Support could be by providing an accessible venue, helping with transport, and providing support for any caring responsibilities that might hinder participation.

Calculation of compliance

Compliance (%) with the first measure described in the table above is calculated as follows.

$$\frac{\text{Number of children whose referral is consistent with the **crit**erion **plus** number of children who meet any **exception** listed}}{\text{Number of children to whom the **measure** applies}} \times 100$$

Compliance (%) with the other measures described in the table above is calculated as follows.

$$\frac{\text{Number of parent-training education programmes that are consistent with the **crit**erion *plus* number of programmes that meet an **exception** developed locally, if any}}{\text{Number of parent-training/education programmes}} \times 100$$

Professional staff should review the findings of measurement, identify whether practice can be improved, agree on a plan to achieve any desired improvement and repeat the measurement of actual practice to confirm that the desired improvement is being achieved.