

Incredible Years parent training support for foster carers in Wales: a multi-centre feasibility study

T. Bywater,* J. Hutchings,* P. Linck,† C. Whitaker,‡ D. Daley,* S. T. Yeo† and R. T. Edwards†

*College of Health and Behavioural Science, School of Psychology, Bangor University

†Centre for Economics and Policy in Health/Canolfan Economeg a Pholisi Iechyd, IMSCaR, College of Health and Behavioural Sciences, Dean Street Building, Bangor University, and

‡College of Health and Behavioural Science, North Wales Organisation for Randomised Trials in Health, Bangor University, Gwynedd, UK

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Abstract

Background the incidence of conduct disorder in young children is 10% in the general population and 37% among fostered children. Up to 40% of untreated children diagnosed with conduct disorder develop problems later in life including drug misuse, criminal and violent behaviour. There are more than 80 000 looked after children in the UK, with 5000 in Wales. Challenging child behaviour is the main reason for placement breakdown and has huge cost implications as challenging children cost up to 10 times more in service use than children without conduct disorder. The Incredible Years (IY) evidence-based parenting programme is an effective, low cost solution in improving child behaviour and social competence in 'conventional' families and thus has the potential to support foster carers in managing difficult behaviours.

Our main aims were to establish:

- The feasibility of delivery and the effectiveness of the IY parenting programme in supporting carers in managing difficult behaviour in looked after children.
- Service use costs for foster carers and looked after child.

Methods This was a 12-month trial platform study with 46 foster carers in three authorities in Wales. Carers were allocated 2:1 intervention to waiting-list control. Validated measures were used to assess 'parenting' competency, carers' depression levels, child behaviour and service use. Measures were administered at baseline and 6-month follow-up. Intervention carers received the programme between baseline and follow-up.

Results Analyses showed a significant reduction in child problem behaviour and improvement in carers' depression levels for intervention families at follow-up, compared with control. Unexpectedly, there was a significant improvement in control carers' self-reported 'parenting' strategies. Special education was the greatest service cost for looked after children.

Conclusions Initial foster carer training could incorporate the IY programme to support carers in establishing positive relationships and managing difficult child behaviour. Programme participation may lead to reduced service use and improved placement stability.

Keywords

conduct disorder, foster carers, Incredible Years parenting programme, looked after children, service use and associated costs

Correspondence:

Tracey Bywater, BSc, PhD,
College of Health and Behavioural Science,
School of Psychology,
Bangor University,
College Road, Gwynedd
LL57 2DG, UK
E-mail:
t.bywater@bangor.ac.uk

Introduction

In 2008, there were 80 000 looked after children in local authority care in the UK (UK National Statistics 2008). Looked after children often have a difficult start in life and approximately 16% experience three placements in the course of a year (DfES 2006). 'Care' does not always address emotional and behavioural difficulties, and can therefore lead to a vicious cycle of failed placements, poor school achievement and exclusion, poor social relationships and escalating challenging and antisocial behaviour resulting in high use of health, social care and local authority special educational services (Roberts *et al.* 2004). There is a 37% prevalence of conduct disorder in looked after children (Tapsfield & Collier 2005), which is almost 3 times that found in the general population (NICE 2006). It has been estimated that by age 28, the costs of publicly resourced specialist services for those with conduct disorder at age 10 is 10 times higher (£70 019) than for those without behavioural problems (£7423) (Scott *et al.* 2001). Given the high levels of conduct problems among looked after children and the added cost to families, society and services, there is a pressing need to support foster carers in the care and management of this behaviour.

Parenting programmes can be both effective and cost-effective in helping children in conventional family circumstances with challenging behaviour (Webster-Stratton 1998; Edwards *et al.* 2007; Hutchings *et al.* 2007; Bywater *et al.* 2009). There is now international evidence of the effectiveness of the Incredible Years (IY) parenting programme (Mihalic *et al.* 2002) and an evidence base in the UK from three randomized-controlled trials (Scott *et al.* 2001; Gardner *et al.* 2006; Hutchings *et al.* 2007), with the Welsh Assembly Government endorsing the IY programme in its Parenting Action Plan for Wales (DfTE 2005).

The UK government has recognized a need to improve training for foster carers in order to support the health, wellbeing and educational attainment of looked after children (Tapsfield & Collier 2005) and the IY parenting programme with its excellent evidence base serves as a good candidate to contribute to this.

Prior to this study, the IY parenting programme has not been formally evaluated with foster carers. In addition to the formal evaluation, this study addresses the lack of information surrounding the costs of health, social services and education services used by looked after children and their carers. Looked after children may access many services for their range of difficulties or needs, and carers may find the demands of looking after children quite stressful, perhaps leading to increased service use for themselves.

Foster carers' parenting capacity can be markedly reduced when experiencing stress during placement and they are less likely to meet their foster children's needs such as integration or fostering independence, with significantly higher disruption rates being experienced by strained carers (Farmer *et al.* 2005).

It is therefore important to support carers in their difficult task of nurturing looked after children while assessing any involved costs of both implementing the programme and accessing additional services.

The main aims are to establish the feasibility of delivery and the effectiveness of the IY parenting programme by piloting the programme with foster carers, comparing participants who attended an IY programme to those who had not, while establishing service use costs of foster carers and looked after children.

Research questions

- 1 How effective is the IY basic parenting programme in reducing child problem behaviour, reducing carer depression and increasing 'parenting' competencies?
- 2 What are the successes/difficulties in offering and delivering the IY programme to foster carers based on uptake, attendance, client and facilitator feedback?
- 3 What range of health, social care and local authority educational services do looked after children and their carers receive, and what is the cost to public sector agencies?

Method

The intervention: the Incredible Years basic parenting programme

The IY basic parenting programme (Webster-Stratton 1989) consists of 12 weekly 2-h sessions, involving facilitator-led group discussion, videotape modelling and rehearsal of intervention strategies. The programme is delivered in a group format with up to 12 'parents' and two facilitators. The programme focuses on strengthening 'parenting' skills, with the intention of preventing, reducing and/or treating conduct problems among children aged 2–8 years while increasing their social competence.

The sessions emphasize the importance of play, ways to help children learn, effective praise, use of incentives, limit setting and non-aversive ways to deal effectively with misbehaviour.

Study design and procedure

This was a feasibility study employing controlled randomization, at the individual level, of foster carers within each partici-

pating local authority with a 2:1 intervention to waiting-list control condition. Foster carers were randomly allocated to either condition using a random number generator unless they had commitments ruling out possible attendance at a specific group ($n = 6$).

Head of children's services in three local authorities in North and Mid Wales agreed to participate, and each allocated 2–3 staff to deliver the programme. Service staff initially approached foster carers on our behalf for participation in the research. Three visits to each family were carried out by the research team: an initial visit to discuss the research and recruit and obtain written consent from willing foster carers; a second visit to interview and administer questionnaires at baseline; and a third visit to administer questionnaires 6 months post-baseline. The intervention IY group was run in each of the three authorities between baseline and follow-up. Control carers were offered the programme after follow-up.

Foster carers received £25 at each data collection point to recompense for the time taken to complete questionnaires.

Sample

Forty-six foster carers participated. The intervention foster carers' ($n = 29$) looked after children comprised 14 female and 15 males with a mean age of 8.86 years ($SD = 3.43$); the control group ($n = 17$) comprised 8 female and 9 males with a mean age of 10.47 years ($SD = 4.48$) (see Table 1 for demographic information by allocation group). The children ranged between 2 and 17 years at baseline. Foster carers who were looking after more than one child were asked to focus on one child for this study, the index child. This practice reflects programme delivery with typical parents, with parents focusing on one child in order to conduct homework and practice skills. For research purposes, choice was guided by which child was likely to remain with the carer for at least the following 6 months.

All children, with the exception of one, remained with the same carer at the 6-month follow-up. The child that was no

longer with the same carer had left one week prior to the follow-up visit; data were collected and analysed as the parent-report child behaviour measures ask parents/carers to focus on recent behaviour.

There were seven facilitators: one was a qualified IY mentor; three had previously delivered the parenting programme; and the remaining three were delivering the programme for the first time. Each group was delivered collaboratively with at least one experienced and non-experienced facilitator. All facilitators completed a semi-structured interview to share experiences and views on their delivery of the programme to foster carers; it was the first time that any of the facilitators had delivered the programme to this client group.

For economic analyses, the sample consisted of 27 and 15, intervention and control because of incomplete cost data. This smaller sample did not significantly differ from the main sample.

Implementation fidelity

Facilitators received weekly supervision by either an IY mentor (a Clinical Child Psychologist), or IY trainer (a Consultant Clinical Psychologist and the second author), to ensure the programme was delivered as intended. All facilitators video-recorded their delivery of the programme and took their tapes to supervision to receive feedback. Supervision was given in a group format, run solely for this research group because of confidentiality and child protection issues.

Ethical issues

Ethical approval was granted by the Ethics and Research Governance Committee, School of Psychology, Bangor University.

Biological parents were asked whether they had any objections to their child's foster carer completing questionnaires regarding their child's behaviour. Foster carers were only approached if parents did not object. Foster carers gave

Table 1. Demographic data by condition

Variable	Condition							
	Control				Intervention			
	<i>n</i>	Min	Max	Mean (SD)	<i>n</i>	Min	Max	Mean (SD)
Age of looked after child (years)	17	3	17	10.47 (4.48)	29	2	15	8.86 (3.43)
Length of time looked after child has resided with current carer (months)	15	1	48	25.40 (17.56)	27	1	84	21.88 (24.87)
Age of carer (years)	15	37	66	47.33 (8.94)	28	28	61	46.28 (9.51)
Length of time carer has fostered in total (months)*	16	14	360	83.00 (88.37)	28	1	360	58.46 (68.40)

*Significant at $P < 0.05$.

informed consent and were given up to 2 weeks to consider their participation.

All data were kept confidential and was anonymized by use of an identifier. Computer databases were password protected.

Behavioural outcomes

Measures

Standardized, validated measures were administered to foster carers to assess foster carer parenting competencies (*The Parenting Scale*, Arnold *et al.* 1993), foster carer depression levels [*Beck Depression Inventory* (BDI), Beck *et al.* 1961] and child behavioural and emotional problems [*Eyberg Child Behavior Inventory* (ECBI), Eyberg & Ross 1978; *The Strengths and Difficulties Questionnaire* (SDQ), Goodman 1997]. A demographic questionnaire was administered to gather background information about the foster carer and looked after index child.

The ECBI was the primary outcome measure. This has two subscales to assess the number and intensity of conduct problems; scoring above the 127 and 11 cut-offs are cause for concern on each respective subscale.

All measures are age-appropriate; the SDQ and ECBI were designed for children aged 3–16 and 2–16 years, respectively. The parent scale, although designed initially for parents of children aged up to 7 years of age, has been used in large-scale studies with children aged 3–16 years, for example, in the Pathfinder Early Intervention Project (Lindsay *et al.* 2008) and achieved significant results.

Statistical analysis

Analysis of Covariance (ANCOVA), *t*-tests and effect sizes were used to establish whether any differences existed between the intervention and waiting list-control conditions at baseline and at 6-month follow-up, and to establish the magnitude of change in outcomes on foster carer parenting competencies and depression levels, and child behaviour. Effect sizes were calculated using Cohen's (1988) guidelines whereby a figure of 0.3 denotes a small but effective change, 0.5 denotes a medium-effect size and 0.8 and above denotes a large-effect size.

Qualitative feedback

Thematic content analysis was used to assess (1) intervention foster carer feedback following programme attendance, and (2) facilitator feedback following first-time delivery of the programme to foster carers.

Economic evaluation

Measures

Costs were examined from a multi-agency public sector perspective. We measured health, social care and special educational service costs using an interviewer administered Client Service Receipt Inventory (CSRI) (Patel *et al.* 2005). Questions related to carer, looked after child, and use of services in the preceding 6 months and was collected at the 6-month follow-up to capture service use costs within the research trial period. National costs were applied to these services, drawn from a number of published sources including Unit Costs of Health and Social Care 2006/2007 (see Curtis 2007), *NHS Reference Costs* (DOH 2006), and personal contacts with local National Health Service Trusts and Councils.

In addition to the 'bottom-up' data, 'top-down' data were accessed to establish annual allowances paid to foster carers in the three local authorities from the core set of data for children's services (Local Government Data Unit – Wales 2007). This data set includes all fees and allowances paid to foster carers, the costs of social workers and other support staff. One-off payments such as holidays, lease cars, birthday and Christmas treats are included. In addition, we contacted finance officers at the local authorities for any additional expenditure to support looked after children or carers to that recorded by the Local Government Data Unit.

Economic statistical analysis

The sample was small and the cost data were highly skewed. We were therefore not able to perform a cost-effectiveness analysis (O'Brien & Briggs 2002; Glick *et al.* 2007). We present the total and mean health social care and education costs from 42 data sets completed at follow-up, which report on the preceding 6 months of service use for both the carer and their looked after child.

Results

Demographic data

Using *t*-tests, there were no significant differences between intervention and control participants in terms of age of foster carers or children at baseline, or for length of time the looked after child had resided with their current carer. There was 1:1 ratio of boys to girls in each condition. The only significant difference between conditions at baseline was length of time

carers had fostered (see Table 1), a mean of 83 months (SD = 88.37) for control carers and 58.46 (SD = 68.4) for intervention carers. Thirty-six children in total (78%) had been in foster care for over 12 months, 23 intervention children (79% of intervention sample) and 13 control children (77% of control sample).

Attendance and uptake rates

Foster carers attended a mean of nine of the twelve group sessions, with 100% attending six or more sessions. Attendance levels reflected foster carers' perceptions of the course as professional training, as highlighted in the qualitative results.

Behavioural outcomes

Looked after children's behavioural outcomes: foster carer report

By chance the intervention children were rated noticeably higher on the ECBI intensity scale than those in the control at baseline. Therefore, ANCOVA was applied, as it would be in a large-scale randomized controlled trial, to account for these potentially important differences at baseline. ANCOVA used four covariates, baseline score across condition, special needs, age of child and local authorities to compare the outcome measures at follow-up between intervention and control groups; however, the covariates were not found to contribute to the model in this instance and there were no significant differences between the intervention and control groups at follow-up.

Improvements for the intervention group were noticeable looking at mean differences with ANCOVA; therefore, paired *t*-tests for both conditions were applied to establish change. Effect sizes were then calculated using the difference between paired means divided by the standard deviation of the paired differences to further explore the size of change.

A significant change in the mean scores for the intervention condition children as compared with the control condition was found for the ECBI intensity scores (see Table 2). At baseline, 50% of intervention carers rated their looked after child above the clinical cut-off of 127 on the intensity scale. At follow-up, this reduced to 35%. Waiting list-control carers rated 25% of children as being over the cut-off at baseline, increasing to 30% at follow-up.

The ECBI problem scale was not included in analyses as foster carers commented that although their looked after child displayed challenging behaviour it was not a problem to them in their role to care for the child regardless of their behaviour; in other words, foster carers saw the management of this difficult behaviour as part of their job and gave extremely low ratings on this scale, sometimes zero.

For the SDQ total score, 62% of intervention looked after index children were rated over the cut-off of 17 at baseline, falling to 35% at follow-up. This was a significant change (see Table 2); 56% of control children were above the cut-off at baseline falling to 36% at follow-up, this was not significant. The hyperactivity SDQ subscale also showed statistical improvement for the intervention children (see Table 2).

Foster carer outcomes: self-report

Depression levels were assessed using the BDI (Beck *et al.* 1961). At 6-month follow-up, there was a 40% drop in mean depression levels for the intervention condition only, from a mean score of 6.25 (SD = 5.14) to 3.96 (SD = 4.42) (see Table 3). Five intervention (17% of intervention sample) and two control carers (12% of the control sample) were within mild, moderate and severe depression categories. At follow-up, three of the five intervention carers were returned to below the level of mild depression (a score of 10) with other carers also reporting drops in depression levels, while there was no significant change for the control condition, with the two depressed carers remaining

Table 2. Child outcomes

Carer completed measures (cut-offs)	Mean (SD) raw scores							
	Control (n = 17)				Intervention (n = 29)			
	Baseline	Follow-up	t-value (P)	Effect size	Baseline	Follow-up	t-value (P)	Effect size
ECBI-I (127)	110.68 (29.18)	102.81 (29.53)	1.057 (0.307)	0.27	126.75 (40.15)	112.89 (41.54)	3.149 (0.004)**	0.67
SDQ total (17)	18.06 (7.78)	14.8 (6.54)	1.904 (0.076)	0.47	19.00 (7.74)	16.41 (8.56)	2.981 (0.006)**	0.56
SDQ hyperactive (7)	6.93 (2.93)	6.25 (2.72)	0.838 (0.415)	0.21	6.68 (2.60)	5.65 (2.74)	2.658 (0.013)*	0.50

Cohen's (1988) effect size calculation used is the difference between the two paired means divided by the paired pooled standard deviation.

*Significant at $P < 0.05$; **Significant at $P < 0.01$.

ECBI-I, Eyberg Child Behaviour Inventory-intensity; SDQ, Strengths and Difficulties Questionnaire.

Table 3. Foster carer outcomes

Carer completed Measures (cut-offs)	Mean (SD) raw scores							
	Control (n = 17)				Intervention (n = 29)			
	Baseline	Follow-up	t-value (P)	Effect size	Baseline	Follow-up	t-value (P)	Effect size
BDI (cut off 19)	5.06 (6.53)	5.00 (5.96)	0.22 (0.829)	0.01	6.25 (5.14)	3.96 (4.42)	2.367 (0.026)*	0.46
Arnold (no cut-off)	2.55 (0.57)	2.37 (0.34)	2.69 (0.017)*	0.24	2.32 (0.50)	2.18 (0.44)	1.715 (0.098)	0.31

Cohen's (1988) effect size calculation used is the difference between the two paired means divided by the paired pooled standard deviation.

*Significant at $P < 0.05$.

BDI, Beck Depression Inventory; Arnold, Parenting Scale (higher score equals poorer parenting).

in the range for depression. The effect size of 0.46 or the intervention group demonstrates a medium meaningful change.

Parenting competencies were assessed using the Parenting Scale (Arnold *et al.* 1993). Intervention foster carers did not show a significant change, but there was a significant, unexpected, improvement for the control condition, yet the effect size was larger for the intervention compared with control carers (Table 3).

Qualitative findings (using thematic content analysis)

Foster carers' feedback on the IY programme

Foster carers were generally satisfied with the programme, enjoyed the experience and gave positive comments about the programme supporting their management and improvement of child behaviour. Suggestions to lengthen the programme to 14 weeks to include more on 'play' and 'problem-solving' sessions were valid given that some children were perceived as missing basic 'building blocks' from their early social and emotional development because of a lack of personal interactions in their earlier years. The programme developer (Webster-Stratton) has since expanded this programme as part of her work with clinically referred children to include more play, coaching and problem-solving sessions.

Foster carers welcomed the opportunity to attend a parenting programme run specifically for them as a unique population. They felt more able to share their experiences, difficulties and concerns regarding their role, and their relationship with the child they were looking after, in this confidential environment. Carers suggested programme delivery would benefit from facilitators possessing more knowledge and understanding of the complex issues and legislation governing the care of looked after children, especially when discussing appropriate reward systems

for looked after children, for example, hugs or financial incentives, may be inappropriate for some children.

Facilitators' feedback on IY programme delivery

This was the first time that the facilitators had delivered the programme to a foster carer group. Facilitators found the programme more challenging to deliver than usual because of the large age range of children under consideration (2–17 years) and the fact that foster carers viewed the programme as additional training for their profession and therefore were more vocal and questioning than parents in general.

Facilitators were from a variety of backgrounds with varying degrees of experience of delivering the programme, but all agreed that knowledge of foster caring procedures would be advantageous to delivering the programme to this sample to fully understand arising issues, for example, what is and is not considered acceptable as 'rewards' for looked after children. Facilitators echoed the carers' recommendations in lengthening the programme to spend more time on play and problem solving.

Economic findings

Foster carer health and social care costs

The total costs relating to 42 carers contacts (with complete data) with health and social services were around £13 000 ($M = £311$ per carer, $SD = £344$), as assessed on the CSRI. Table 4 summarizes costs of contacts for the carers own needs. Around 66% of the costs result from contacts with social workers. In comparison, the costs of contacts with primary care are low (£35 per carer in 6 months).

Twenty-seven of the 42 foster carers in the study received the IY parenting programme. The estimated cost of delivering the programme for the first time to 8 fosters carers per group was £13 931 or £1741 per attending carer (see Edwards *et al.* 2007

Table 4. Total, Mean (SD) cost of health, social and education service contacts for foster carers (£) over 6 months*

Type of cost	Total cost (n = 42)	Mean cost (SD) (n = 42)
Carer service utilization		
General Practitioner consultations	1 241	30 (49)
Practice nurse consultations	198	5 (10)
Social worker	8 470	202 (207)
Accident & Emergency	106	3 (16)
Outpatient	1 606	38 (98)
Inpatient/day case	1 449	35 (224)
Total carer service utilization	13 070	311 (344)

*Costs rounded to the nearest £.

for previous costing of this programme). Subsequent delivery would be at a lower cost because of exclusion of non-recurrent costs, for example, purchasing of the programme.

Looked after children's health and social care costs

The total cost of the services used by the 42 looked after children was £160 095, with a mean cost per child of £3812 (SD = £3998) (see Table 5), as assessed by the carer-completed CSRI. Contacts with education services accounted for 69% (£111 205, M = £2648, SD = £3847), which is not surprising as 26 (63%) of the total sample, 18 intervention foster carers and 8 control, reported that their looked after child had special educational needs with 14 (33% of the total sample) children being statemented.

The two high cost components were additional one-to-one help in the classroom, and special education. Of the 42 looked after children, nine attended Local Education Authority-funded special education school, one attended a residential school. The total cost of attending special school was £63 667, with a mean cost per child of £1516 (SD = £3234). Within the costs of health and social services, the highest costs were for social worker contacts, advocates and Child and Adolescent Mental Health Services.

Top-down costs were collected from the core set of data for children's services (Local Government Data Unit – Wales 2007) and from contacts within each local authority. There was variability between the authorities, but the main interest here was to establish a mean cost per looked after child. Fees and allowances paid to the carers by the local authorities totalled £388 752 (M = £9256) over the 6-month period between baseline and follow-up. Additional costs include funding for helplines, support groups, events and activities and the fostering panel was £4879 (mean per child £116).

The total cost of services accessed and fees and allowances paid in respect of the 42 children in the study was £553 726,

with a mean cost per looked after child of £13 184 (SD = £3998) over the 6-month period.

Discussion

This feasibility study suggests that the IY parenting programme is effective in significantly reducing challenging child behaviours as rated by foster carers, while also reducing foster carer depression; however, findings need to be treated with caution because of the small sample size.

The Parenting Scale (Arnold *et al.* 1993) did not detect significant changes in the intervention carers despite a meaningful effect size, while a significant improvement was found for the control carers. Mean scores for both conditions at baseline were low and comparable to a non-clinical sample parenting competency mean score of 2.6 (SD = 0.6) (see Arnold *et al.* 1993). The fact that we only saw foster carers, and not the children, and the fact that control children did not show a significant improvement while intervention children did, suggests that there was a change in 'parenting' style after attending the IY programme, as indicated by the small, but meaningful effect size for the intervention carers. The small, yet significant, change in parenting behaviour in the control condition did not reflect a change in child behaviour, as is normally the case (see Arnold *et al.* 1993; Hutchings *et al.* 2007; Bywater *et al.* 2009). Mediator and moderator analyses, set within a larger trial, would establish the relationship between parenting practices and child behaviour, and for who the programme worked best for and how.

On reflection the Parenting Scale was probably the wrong choice of measure to use with foster carers given that they would not participate in some parenting practices the questionnaire highlighted, for example, smacking, or swearing at a child.

Results suggest an alternative, or more sensitive measure should be applied in future studies, for example, the Parenting Sense of Competence Scale (Johnston & Mash 1989), which assesses parenting self esteem as opposed to specific parenting practices. Caregivers with low levels of perceived control over their children's behaviour cope ineffectively with difficult child behaviour; therefore, high levels of perceived control may be found after attendance on a parenting programme resulting in more effective management of difficult child behaviour.

It is clear from foster carer and facilitator feedback, and also behavioural outcome analyses, that the programme was well received and beneficial to foster carers and children in the short term. This reflects programme findings with other samples of children with high numbers of problem behaviours at baseline (Webster-Stratton 1998; Scott *et al.* 2001; Hutchings *et al.* 2007).

Type of cost	Total cost (n = 42)	Mean cost (SD) (n = 42)
Primary, social and community care costs	44 534	1 060 (1310)
General Practitioner consultations	1 288	31 (67)
Practice nurse consultations	89	2 (5)
Health visitor	630	15 (54)
Speech therapist	1 272	30 (176)
Physiotherapist	1 304	31 (178)
Child and Adolescent Mental Health Services	9 546	227 (538)
Community paediatrician	1 692	40 (106)
LAC nurse	216	5 (13)
Social worker	12 796	305 (404)
Sessional worker	1 311	31 (102)
Youth offending team	520	12 (80)
Child protection officer	195	5 (17)
Advocate	11 517	274 (841)
Fostering respite care	2 158	51 (173)
Secondary care costs	4 356	104 (319)
Accident & Emergency	212	5 (23)
Outpatient	2 720	65 (212)
Inpatient/day case	1 424	34 (125)
All LAC health, social and community services costs	48 890	1 164 (1 497)
Education costs	111 205	2 648 (3 847)
Carer consultation with head teacher	3 140	75 (326)
Carer consultation with class teacher	1 760	42 (144)
School nurse	518	12 (30)
Educational social worker	218	5 (12)
School or community paediatrician	220	5 (16)
Educational psychologist	363	9 (25)
One-to-one help	30 844	734 (2343)
Small-group work	480	11 (46)
Special teaching	7 710	184 (940)
Educational needs statement	1 372	33 (81)
Psychological assessment at school	914	22 (68)
Special education	63 667	1 516 (3234)
Total service contact costs	160 095	3 812 (3 998)
LA fees and allowances‡		
Gross LA expenditure for LAC fees and allowances paid to carers over 6 months	388 752	9 256 (0)
Additional LA costs§	4 879	116 (0)
Total LA fees, allowances and service contact costs	553 726	13 184 (3 998)

†Rounded to the nearest £.

‡Mean gross weekly expenditure per LAC in each of 3 LAs over 6 months, costs from Local Government Data Unit – Wales (2007) (includes all fees and allowances paid to foster parents).

§Additional LA expenditure for helplines, support groups, training, furniture, activities – data supplied by County Council Information Officers in August and September 2007 (not included in local Government Data Unit).

Table 5. Total, Mean (SD) cost of health, social and education service contacts with looked after children (LAC) (£) over 6 months†

Foster carers and facilitators felt that there was a definite place for this programme, especially for new foster carers and prospective adoptive parents. New foster carers found the group particularly useful and supportive, especially if they were new to parenting without children of their own. All foster carers found the content useful and welcomed the chance to discuss issues and problem solve with other foster carers in a confidential environment. Facilitators and foster carers agreed that the programme would benefit from being extended in length, which fits

with more recent programme developments, allowing more time to explore relationship building and play, as many of the looked after children had not had the opportunity to form early social attachments through play.

We found that the highest costs of services accessed by looked after children were for special education needs, reflecting the fact that 63% of the sample received additional help at school (11% for behavioural difficulties, 15% for learning difficulties, and 33% for combined learning and behavioural difficulties.

Nine children attended local authority special schools, if they had attended independent schools the costs would be 3 times higher (pers. comm., D. Williams, 29 June 2009). Fees and allowances paid to carers in the three local authorities demonstrate there is considerable variation in the amount of fees and allowances paid to carers across Wales and possibly the UK.

Costs of services accessed by looked after children and their carers were high, totalling £566 796 for 42 child-carer dyads in the study, £13 495 per dyad over 6 months, including carer fees. Costs per child, minus carer service use costs equals £13 184 for 6 months (£26 368 per year), this equates to 5 times the amount quoted by Scott and colleagues (2001) of £5359 per year (costs inflated to 2006/2007 to enable direct comparison) for individuals with conduct disorders compared with £568 per year for individuals without conduct disorder. In a very similar study carried out in Wales (Edwards *et al.* 2007), established service use costs for non-looked after children for 6 months as £885 (£1770 per year – costs inflated to 2006/2007). The children were younger, aged 4 to 5 years, and all scored over the cut-off on the ECBI, but the sample lived in the same country (Wales), and the same measure (CSRI) was used to cost the same 6-month period within the trial, that is, CSRI administered at a 6-month follow-up post intervention. Costs presented here include the intervention and control children for direct cost comparisons and highlight further the additional service use requirements of looked after children.

This was a small-scale feasibility study to establish whether the IY programme is acceptable and beneficial to foster carers, and to assess any difficulties in implementing and evaluating the programme. We have demonstrated positive short-term effects for carers, and looked after children within an age range much broader than typical for this programme; however, although chronologically older many of the children in care were developmentally socially and emotionally much younger than their years. The programme has added to carers' toolkit for managing and reducing difficult behaviour and improving social competence, in their current, and possibly future, placements.

Limitations and future studies

The sample was small and, despite positive findings using a cautious approach to data analysis, findings need to be disseminated with caution. A larger randomized-controlled trial including cost-effectiveness analysis would yield more robust findings and be more informative to service and policy makers and could assess: (1) placement stability effects; (2) whether the

IY programme leads to changes in objective measures (for example, by using observational techniques) of conduct problems in addition to changes in carer reports of conduct problems; (3) self-assessment of child behaviour problems using the self-report SDQ; (4) whether looked after children perceive any changes in 'parenting' style – assessed via a semi-structured interview, or a modified version of a parenting competency questionnaire; and (5) any mediator or moderator effects.

In addition, where initial goals for children are for them to be returned home, it might also be helpful for birth parents to attend these courses run as a specific group for parents of looked after children, possibly together, or in parallel, with their children's foster carers to establish consistent parenting practices, or principles.

The cost data were skewed, as is usual in the field of Health Economics. A larger trial, with sufficient power, should enable the degree of skewedness across intervention and control groups to be compared more effectively (Glick *et al.* 2007).

Conclusions

Our findings underline the need for children's services to ensure that foster carers are given the tools to address the emotional and behavioural needs and difficulties of their current and future looked after children. Rather than awaiting a diagnosis of a psychiatric disorder to provide access to evidence-based treatments and risking the chance of a placement breaking down, the IY group 'parenting' programme could be included in foster carers' initial training. Following these encouraging results and facilitator and carer feedback, two of the three local authorities have continued to offer the intervention to foster carers. This support should enhance the benefits of being looked after, and allow a greater proportion of these children to fulfil their potential as adults.

This programme was successful in supporting foster carers in their role by managing and reducing challenging behaviour and we hope that this programme would also promote long-term placement stability at a reasonable cost, while possibly reducing costs to health, social and education services in the longer term.

Conflict of interests

No competing interests declared except by Professor Judy Hutchings who is paid by the IY programme developer to run occasional training courses in the delivery of the parenting programme.

Key messages

- The IY programme is successful in reducing problem behaviours, including hyperactivity, in looked after children as rated by foster carers.
- The IY programme is successful in reducing depression levels in foster carers.
- Both foster carers and facilitators believed the programme would be useful in initial foster carer training
- Looked after children are high users of health, social and special education services and are therefore costly to support.
- The IY programme is a relatively low-cost intervention, which could have a long-term benefit for current and future looked after children because of generalizable skills learnt in behaviour management.

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