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Implementing child mental health interventions in service settings: lessons from three pragmatic randomised controlled trials in Wales

Judy Hutchings¹, Tracey Bywater², Catrin Eames³ and Pam Martin³

Abstract

This article reports on three pragmatic randomised controlled trials (RCTs) to help children at risk of conduct disorder (CD): two involved the Incredible Years (IY) BASIC parent programme and the other concerned the IY teacher programme. All three interventions took place in regular service settings in North- and Mid-Wales. In all three studies, staff from the provider agency delivered the programme and participated in RCT evaluations in which participants were randomly allocated to intervention or waiting-list control conditions. After a brief introduction to research into the prevention or treatment of CD, and the issues to be considered by services in selecting and delivering interventions, this article summarises the structure, content and evidence base of the IY programmes. The three Welsh studies are briefly described before exploring what factors contributed to service participation in the trials and the benefits and lessons learned in undertaking them.

Key words

fidelity tools; intervention; collaborative planning; child behaviour; evidence-based services

Introduction

Anti-social behaviour and conduct disorder (CD), its clinical manifestation, is a large and growing problem that absorbs an increasing proportion of state funds on both sides of the Atlantic. These costs fall on a variety of agencies, including health, education, social care and the criminal justice system. As a result, the issue is of growing political interest, prompting recognition in the UK of the need to ensure that publicly-funded services are being delivered effectively and to start to specify the use of evidence-based programmes (Parent Action Plan, 2005; Social Exclusion Action Plan, 2006). This is manifested in

recent Government initiatives such as the Pathfinder Early Intervention and Family Intervention Projects in England, and Flying Start in Wales¹.

One issue facing Government and service providers is to determine what qualifies as effective. The vast majority of high-quality randomised controlled trials (RCTs) of interventions to prevent or reduce violence and anti-social behaviour have been conducted in the US (Mihalic *et al*, 2002). Even systematic reviews undertaken in the UK find little, if any, sound UK evidence (Woolfenden, Williams & Peat, 2001; Barlow & Parsons, 2003; NICE, 2006). The difference in research traditions between the US and the UK may result from different political funding structures and priorities. In

¹ Professor,
School of
Psychology,
Bangor University
and North West
Wales NHS Trust

² Research
psychologist,
Bangor University

³ School of
Psychology,
Bangor University

the UK, health, social care and educational services for children are predominantly publicly funded and are universal access services. They have not, until recently, needed evidence to justify their funding. In the US, publicly-funded services for children are significantly less well resourced than in the UK but research budgets have been higher. As a result, there has been plenty of RCT research of treatment and prevention programmes for CD with rigorous standards of experimental design (eg. Olds *et al* 1998; Webster-Stratton, 1998; Webster-Stratton, Reid & Hammond, 2001, 2004; Mihalic *et al*, 2002; Reid & Baydar, 2004).

Unfortunately, when programmes with high standards of evidence are delivered in service settings by non-specialist staff, it is often difficult to replicate the established findings (Olds *et al*, 1998; Henggeler, 1999; Mihalic *et al*, 2002). One reason for this failure can be that the programme developer has not provided the necessary tools, such as manuals, adherence checks, training and access to supervision to enable faithful replication (Peterson, Homer & Wonderlich, 1982; Shapiro & Shapiro, 1983; Skiba & Casy, 1985; Moncher & Prinz, 1991; Gresham *et al*, 1993; Durlak, 1997; Durlak & Wells, 1998). Another reason is that, even when programmes contain the tools for fidelity, services may not follow the programme faithfully, instead adding or discarding components, using insufficiently trained staff or lacking some of the required resources (Vermilyea, Barlow & O'Brien, 1984; Chen, 1990; Bond *et al*, 2000; Mihalic *et al*, 2002; Mills & Ragan, 2000).

The availability of fidelity tools is not generally one of the criteria for inclusion in systematic reviews, making it difficult for service providers to identify evidence-based programmes that can be delivered effectively in service settings (Barlow & Parsons, 2003; NICE 2006; Utting, Monteiro & Ghate, 2007). The reviews undertaken by the Center for Violence Prevention at the University of Colorado are an exception in including tools for replication as one of their criteria for recognising programmes as effective. After reviewing 600 programmes, only 11, including the IY programmes, achieved their designated blueprint status (Mihalic *et al*, 2002).

The Incredible Years (IY) programmes

With evidence from over 20 years of RCTs, the IY parent, child and teacher series has been researched in various combinations and identified in many systematic reviews of evidence-based interventions that prevent and/or reduce violence (Taylor & Biglan, 1998). The programmes have been delivered and

researched internationally² and have been demonstrated to be equally effective with different cultural groups in the US (Caucasian, African, Asian and Spanish Americans) (Reid, Webster-Stratton & Beauchaine, 2001) and in countries such as England, Wales, Norway and Canada (Taylor *et al*, 1998; Scott *et al*, 2001; Morch *et al*, 2004; Gardner, Burton & Klimes, 2006; Hutchings *et al*, 2007a). There is also ongoing research on the programmes in Portugal, Australia, Jamaica and New Zealand.

The programmes were initially developed and researched as treatment interventions for targeted referred children and their families, and subsequently as prevention programmes. They are based on a philosophy of collaboration with parents, children and teachers, helping them to recognise their skills and empowering them to identify effective strategies to achieve their own goals (Webster-Stratton & Herbert, 1994). Social learning theory is the underpinning theoretical model (Hutchings, Gardner & Lane, 2004), utilising collaborative and practice-based methods including discussion, video review, role-play practice and homework assignments.

The parent programme encourages positive relationships between parents and children. It does this by emphasising the importance of play with children and encouraging behaviour that parents want to see more of through limit-setting and positive discipline strategies. The child programme teaches self-management, academic, social and emotional skills. The teacher programme mirrors the parent programme, using video vignettes of classroom situations.

A core component of the IY programmes, which contributed to their blueprint status, is the attention given to ensuring that the programmes can be replicated faithfully (Mihalic *et al*, 2002). This includes a rigorous certification process for leaders, starting with an initial three-day basic training programme and followed by supervision. Once a certain level of expertise has been developed, a videotape of a parent session demonstrating both knowledge of the content and the collaborative leader skills is submitted and reviewed by a mentor or trainer. This generally receives extensive feedback and suggestions on how to further develop collaborative leader skills. If this advice is followed, a subsequent tape is likely to be approved, after which the leader submits the records from two full programme sequences, including leader checklists and participant feedback. This process can take one to two years to complete but ensures that a certified leader is delivering the programme in a way that should achieve similar results to those obtained in the research evaluations. Other tools for fidelity

include participant books, detailed manuals, video vignettes, parent handouts and record sheets.

All of the components in the IY series (parent, child and teacher programmes) have been used in Wales for the last 10 years, initially as treatment interventions and more recently in prevention and early intervention settings. This provided the backdrop for the RCT studies described in this article. Brief summaries of each trial are presented, followed by discussion of what has been learned from the studies and the benefits for service providers.

The three RCT studies

1. The North and Mid-Wales Sure Start Study

The development of Sure Start³ services in Wales, targeting early intervention on high-risk communities, came from new Welsh Assembly Government funding. This study (Hutchings *et al*, 2007a, 2007b; Jones *et al*, 2007) targeted parents of young (three- and four-year-old) children identified as being at high risk of developing conduct disorder. It was the first replication of Webster-Stratton's (1998) Head Start trial and was delivered in service settings using regular service personnel. The research element was funded by the Health Foundation and based at Bangor University. The trial ran from October 2002 to June 2006.

Families in 11 Sure Start communities across North- and Mid-Wales, with a child aged three or four years and likely to be at risk of developing CD, were initially approached by their local health visitors to establish whether they met the inclusion criterion. This was that the child scored above the clinical cut-off for behaviour problems on the parent reported Eyberg Child Behaviour Inventory (ECBI; Eyberg & Ross, 1978), a well-validated inventory that has been extensively used in research trials (eg. Gardner *et al*, 2006). Some 153 families met inclusion criteria and consented. After recruitment, a range of measures were administered, including parent report of social circumstances, child mental health and behaviour, sibling behaviour, reported parenting practice and parental stress and mental health as well as direct observation of parent and child behaviour by observers blind as to condition (intervention or control group). Once baseline measures had been collected, families underwent a 2:1 random allocation to intervention ($n=104$) or control ($n=49$) condition, after stratification by age and sex. Control families were offered the programme after the first data collection follow-up, which was approximately six months later.

The intervention was the Incredible Years 12-session BASIC parent programme (Webster-Stratton, 1989). Groups were delivered in services managed by two different national children's charities, local health trusts, a local education authority and a local community group. Each group had two leaders and the 12 groups (one location had two groups) involved a total of 22 different leaders employed by health, education and voluntary sector organisations. Four group leaders had an 'A' level or equivalent (18-year-old school leaving) qualification. Post-school leaving leader qualifications included eight first degrees, nine Masters degrees and one doctorate. Health visitors comprised the single biggest professional group, co-leading nine of the 12 groups. The interventions took place over five terms between April 2003 and December 2004.

There were no differences between the intervention and control families at baseline. Six months later, families that had attended the parent programme demonstrated significant improvements in child and parent behaviour and mental health, as measured by parent report and independent home observations, whereas there had been no change in control group children (Hutchings *et al*, 2007a). Longer-term findings, currently 18 months post-baseline, show maintenance of all gains for the intervention sample (Bywater *et al*, submitted). At this stage the control group families no longer provide a comparison as they have been offered the intervention. The way that implementation fidelity was addressed in this trial has been reported previously in this Journal (Hutchings *et al*, 2007b).

2. The Teacher Classroom Management (TCM) Study

This study evaluated the five-day IY TCM programme (Webster-Stratton, 1995, revised 2003) and is of particular importance because, in addition to being a service-based study, this is the first trial of the IY teacher programme as a stand-alone intervention. Webster-Stratton has previously only researched it in combination with the parent and child programmes (Reid & Webster-Stratton, 2001; Webster-Stratton, Reid & Hammond, 2004). The study was funded by a collaborative Economic and Social Research Council (ESRC) PhD studentship, awarded to Bangor University and Gwynedd Education Authority, to which Gwynedd made a financial contribution.

Gwynedd, a rural county in North West Wales, is progressively introducing the IY TCM and classroom Dinosaur School programme (Webster-Stratton, 1990, revised 2003) to all of its 106 primary schools (Hutchings, Lane, Ellis Owen & Gwyn, 2004). The first

phase involves reception class teachers undertaking the TCM programme to give them the underpinning management principles on which the Dinosaur School social and emotional curriculum is built. The research study involved 12 schools in which there had been no previous training in the IY teacher or Dinosaur School programmes. A total of 16 teachers from 12 reception classes were recruited (four classes had two teachers). Teachers rated the behaviour of all children using the teacher Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997) and nine children were selected for individual study in each class. These were the three highest, lowest and middle scoring children on the teacher SDQ total problem score. This produced a sample of 107 children (one class had only eight 'index children'). Teachers approached parents for consent to have their child observed as part of a study of teacher behaviour in the classroom. Parents were assured that all data would be anonymised and only 10 parents declined. In these cases the parent of the child with the closest SDQ score was approached and in all cases they consented. Baseline measures were collected in Autumn 2005. These included teacher and parent report measures on child behaviour, measures of teacher stress, teacher five-minute speech samples (a short unstructured interview about every child) as well as direct observation of teacher and child behaviour (Martin, 2005) by observers blind as to condition. A stratified random allocation process took place after baseline measures had been collected. Schools were paired on size and rurality and then randomly allocated to intervention or control conditions. The five days of TCM training were delivered, as designed, on a monthly basis, between January and May 2005, to allow teachers time to undertake and report back on classroom assignments. The two programme leaders were a seconded headmistress and the first author, a clinical child psychologist, as part of her primary care work for the local NHS Trust. Further teacher and parent report measures and classroom observations were conducted in June and July 2006. Control group teachers received the TCM training during the following academic year, commencing in September 2006.

The intervention and data collection phases have been completed and the results of a pilot study published (Martin, 2005; Hutchings *et al.*, 2007c). This identified a number of differences in the predicted direction between teachers who had been trained in the IY TCM and those who had not. Analysis of the main trial data is currently being completed and preliminary analysis shows the intervention to have produced a number of significant improvements in teacher and child behaviour.

3. The Foster Carer Study

The UK government has recognised a need to improve training for foster parents to support the health, well-being and educational attainment of young people placed with them (Tapsfield & Collier, 2005). This study assessed the effectiveness and acceptability of the 12-session IY BASIC parent programme with foster carers. It is funded by the Wales Office of Research and Development of Health and Social Care (WORD) and is being run with three partner authorities in Wales (Flintshire, Wrexham and Powys). The trial is important in two respects: it is the first evaluation of the IY parent programme with foster carers; and also the age range of the looked after children (from two to 16 years) is greater than that for which the programme has currently been demonstrated as effective. Some 46 foster carers have been recruited in this trial platform study, with 29 in the intervention group. The study started in April 2007 and, after the collection of baseline measures, foster carers were allocated to intervention or control conditions. There were a number of constraints on allocation to condition in this study, as numbers were small and some carers could not make the time of the group. In the case of Powys, the county is so big that allocation was by centre rather than by individual. Random allocation of individuals was achieved in two authorities, however, and there were no significant differences between intervention and control group children in the overall sample. All three were completed by February 2008. Control group families were offered the intervention after follow-up measures were collected.

Building successful partnerships between researchers and services

The remainder of this article discusses the factors that contributed to these successful academic/service provider partnerships (see **Table 1**) and the benefits for authorities of participating in high-quality research trials (see **Table 2**).

Identification of suitable partner services for trials

When identifying partner services for trials, it is important that the service has prior experience of the programme and that staff are trained to deliver it. There should also be anecdotal feedback that it is acceptable to both providers and recipients before considering a service-based RCT. This prior involvement ensures an understanding of the programme requirements.

The model of service-based delivery and university-based evaluation had already been

established locally by the first author in a previous RCT study in North-West Wales (Hutchings *et al*, 2002; Hutchings, Lane & Kelly, 2004) but the opportunity to undertake the three studies described here arose because staff had been trained to deliver the IY programmes at Bangor University and the programmes were already being delivered locally.

Services in North- and Mid-Wales were getting enthusiastic responses from both staff and parents to the programme and the study resulted from an approach by the first author to the various Sure Start services. All agreed to participate. Study two, the teacher study, resulted from an initiative from the local authority, Gwynedd, which had undertaken a trial of the programme in initially two, and then a further 16, schools. Having found the programme to be well accepted by teachers, they were keen to obtain more rigorous evidence of its effectiveness to justify the costs of rolling it out to just over 100 primary schools in total. Study three, the foster carer study, followed from a successful local pilot group with foster carers and adoptive parents. All three participating services had local leaders experienced in the programme but none had run targeted groups for foster carers. The suggestion of a research-funded evaluation came from the Bangor research team.

Early involvement of service managers in study planning and ongoing shared management

Service managers in all three studies were involved as partners in developing the bids for funding. This ensured that potential funding bodies were aware of service support for the project and willingness to deliver the intervention. This partnership continued throughout the lifetime of each project, with service managers being members of the quarterly research steering group. Joint planning from the outset clarified the commitments and contributions from both parties, as well as the financial arrangements and the timetable, all of which also form part of the grant application. Furthermore, when inevitable problems arise, there is a joint commitment to resolve them. In addition to the quarterly steering group meetings, service managers were kept informed of progress on recruitment, data collection and allocation of participants to conditions, thereby ensuring that channels of communication between the researchers and the service providers remained open and the projects maintained joint ownership and management.

The projects ran with few problems, primarily attributable to the collaborative and detailed initial pre-project planning, continued involvement of

service managers and the supervision and support of those staff delivering the programmes. However, despite having calculated predicted numbers of children likely to be experiencing behavioural problems and the numbers of foster carers, there were recruitment difficulties in both of the parent trials. This was dealt with as a shared problem and quickly resolved. In both parent trials, initial plans included a larger sample than that required by the power analysis to demonstrate an outcome, since even conduct disordered children (the most prevalent child mental health problem) can disappear when a research trial is established.

Clarification of contributions/ requirements from both partners

Early involvement of the service providers ensured clarity about what was required of them, what the research conditions demanded and what the research team would provide in terms of benefits for the participants.

In all three studies service providers understood that they would be required to run the programme twice: once for the intervention group and subsequently for the control group participants. In the case of the two parent programme trials, although experienced in delivering the programme, the group leaders involved were not certified programme leaders and consequently a high level of supervision was scheduled. Service managers agreed that their staff would be allocated 1.5 days per week each to run the programme. This allowed time for the preparation and review of sessions, mid-week phone calls to all parent participants and follow-up of participants who missed sessions and supervision. Group leaders attended three hours of weekly supervision with the first author, a programme trainer, to which they brought a videotape of each session, programme session checklists, parent evaluations and parent-completed assignments. The authorities funded the cost of their staff, crèche facilities and travel to supervision. The teacher programme was delivered by the first author, a certified programme leader, as part of her CAMHS⁴ primary care work, partnered by a seconded headteacher. Sessions were videotaped for peer supervision by the leaders and all checklists and teacher evaluations were completed. In addition to the seconded headteacher, the service provided supply cover for the teachers to attend the five-day training.

In all three studies the research funding provided additional resources, including books, session materials, leader and parent evaluation sheets, parent and teacher session handouts and parent group raffle prizes. This ensured that participants received all

programme components. In study one (Sure Start), research funding provided lunches for parents and children, some transportation costs, a small monetary incentive for informing the research team of a change of address (to minimise attrition rates), a payment to parents for completing the research evaluations at each stage and leader supervision from the first author. The same processes operated in the foster carer study where each service was given a grant of £1,000 towards lunches, venue costs and any additional costs arising from participating in the study. The high level of supervision in the two parent trials ensured that the programme was delivered with fidelity and that leaders achieved certification during the course of their delivery of the programme. Supervision was seen by service providers as a benefit that would give them a more skilled workforce, and, in the first study, resulted in 21 of the 22 leaders achieving leader certification during the life of the project. In the teacher study, lunches and venues were funded.

Ethical and sensitive recruitment of participants

The ethical and sensitive recruitment of participants is central to successful RCTs. This was undertaken in different ways for the three trials. In the Sure Start trial, local health visitors identified all three- and four-year-old children on their caseloads who they considered to be at risk of CD. If the parent rated the child as being over the clinical cut-off for behaviour problems, they were invited to take part in the trial. If parents agreed (81% did), their information was sent to the research team. A member of the research team then visited the family and gave them an information sheet and a verbal description of the study, invited questions and obtained written consent.

In the teacher trial, the authority was already involved in rolling out the programme to all schools on a three-year timetable. Schools that were allocated to the third year of the programme and had not, so far, had any staff trained in the programme, were approached and invited to join the project. Participation meant that they were offered training in either year one or year two, thereby ensuring that whichever condition they were allocated to, they received training sooner than they would have done otherwise.

Foster carers were recruited either when approached by service personnel or via presentations by the research officer (the second author).

Parents and foster carers, in studies one and three, were recompensed financially (with £25) at each data collection point for time spent completing the measures. In the teacher project, a £25 donation was made to school funds. In addition, individual

teachers and all parents who consented to having their children observed in the classroom and who completed one short questionnaire (the parent SDQ) were rewarded with a £5 voucher. In all studies it was important to ensure that parents and teachers were fully aware that all data would be presented for publication only as anonymous group data.

Building understanding of the evaluation

The services participating in these studies understood the reasons for the selection of the evaluation measures and were aware that they would receive feedback on both the outcomes and the response of their staff to participation. In the IY programmes, evaluation of outcome is always encouraged and recommendations on some basic service evaluation measures are provided as part of initial leader training. Research evaluations use much more rigorous measures; all studies include extensive interview and questionnaire measures and, in the first and second studies, there are blind observation measures of participant behaviour.

Enhancement of fidelity of implementation

The IY programmes incorporate a rigorous accreditation process for programme leaders. In the Sure Start study, an IY trainer independently rated all groups as delivering the programme with fidelity, which enabled programme leaders to achieve leader certification. In the teacher study the first author was an accredited programme leader prior to the research study. In the foster carer study, weekly supervision ensured that group leaders deliver with fidelity and should achieve the accreditation standard. This rigorous leader certification process, a core component of achieving fidelity in the IY programmes, is not present in many similar programmes (Mihalic *et al*, 2002).

In terms of other fidelity measures, a survey of staff involved in the Sure Start study produced predictable responses to the effect that it was particularly helpful to have all administrative aspects of running the programmes dealt with by the research team, for example the photocopying and supplying of handouts and the provision of folders and raffle prizes. It was clear that this differed from their previous experience of delivering the programme. In the Blueprint reviews, a lack of administrative support was present in every case of failed replication, highlighting the need for support at every level to ensure effective delivery of an intervention (Mihalic *et al*, 2002). A survey of the teachers who received the TCM training showed satisfaction with, and enthusiasm for, the programme, and this was made available to the participating authority.

Benefits for services and the research community

What are the longer-term benefits for services of participating in research trials? The trials reported here are probably best-case scenarios for the service roll-out of interventions that, without the rigour of a research trial, might be delivered less well and therefore be less effective. This highlights an additional benefit for services in participating in

such trials since it provides a learning opportunity about what is meant by fidelity. The added benefit of having certified leaders who can lead subsequent programmes also helps to ensure effective service delivery in the future. A further benefit for services was the opportunity to receive post-project outcome data for future service planning. Publicly-funded services need to evaluate their interventions to ensure that money is well spent and feedback from research evaluations can contribute to this.

Table 1 Principles for establishing research trials in service settings

<p>Identification of partner agencies</p> <ol style="list-style-type: none"> 1. Trials needs to be based in services that are already trained and experienced in delivering the programme and where it is acceptable to local staff and consumers. 2. Adoption by the service agencies can be in a small way initially, using staff that are interested in trying out a new programme. <p>Involvement of service providers in planning</p> <ol style="list-style-type: none"> 1. Involvement of service providers from the outset ensures their engagement and commitment to the study. 2. Commitment from service providers contributes to success in obtaining research funding. 3. Shared ownership needs to be sustained throughout the project by ongoing joint decision making to deal with issues as they arise. <p>Contribution needed from service providers</p> <ol style="list-style-type: none"> 1. Agreement to run the programme under research conditions and to deliver the programme to control group participants. 2. Allocation of sufficient time to programme leaders to deliver the programme effectively and ensure their access to supervision. 3. Agreement to other research conditions associated with recruitment (eg. the videotaping of all sessions, provision of crèche). <p>Clarification of the research team contributions</p> <ol style="list-style-type: none"> 1. Research trials place added demands on services so it is important to provide some incentives to offset this. 2. Providing participant and leader materials ensures programme fidelity and reduces administrative demands on services. 3. Supervision for staff teaches what is involved in delivering programmes effectively. <p>Recruitment issues/process</p> <ol style="list-style-type: none"> 1. The recruitment process needs to be discussed in detail and agreed between researcher and service provider. 2. It is important that researchers undertake recruitment – to ensure independence – and that participants understand the random allocation and data collection requirements. 3. Incentives for participants for time spent in data collection ensures their willingness to provide follow-up data regardless of whether they complete the intervention. 4. A guarantee that data will be anonymised is important to all participants. <p>Evaluation/fidelity issues</p> <ol style="list-style-type: none"> 1. Evaluators must provide a rationale for proposed measures and feedback on outcomes to participating authorities/ service providers. 2. Tools for assessing programme fidelity must be available to the service providers and monitored by the evaluators.
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Table 2 Long-term benefits for service providers

<ol style="list-style-type: none"> 1. Services learn what is needed to ensure high standard programme delivery with fidelity. 2. Outcome data is useful for future service planning. 3. Participating in research trials creates a pool of skilled programme leaders to support future developments and improves the capacity of the organisation to deliver evidence-based services.
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Pragmatic research trials of the kind discussed in this article also yield important benefits for the research community. The first study followed the common sequence of development and research of a programme in an academic establishment and subsequent evaluation of roll-out in a service setting, so it was a service-based replication of a proven programme addressing primarily fidelity issues. The two other studies went further. In addition to being service-based replications, the teacher study was the first evaluation of the programme as a stand-alone intervention, and the foster carer study was the first use of the IY parent programme with that target group and with children over a wider age range than had previously been researched. The first study demonstrated how to deliver interventions successfully in terms of both delivery in a community service setting environment and effective research replication, while the teacher and foster carer studies are expanding knowledge about the usefulness of programmes themselves.

Conclusions: moving forward in the UK

Growing recognition by UK governments of the need to deliver evidence-based services has resulted in increased funding for dissemination trials. The Welsh Assembly Government led the way by deciding, after monitoring the Sure Start study, to fund leader training for staff from all 22 local authorities in Wales to deliver the IY BASIC parent programme. This funding has so far enabled the training of 240 staff and is now concentrated on supervision to ensure a high standard of programme delivery. In England, various Government departments (Health, Education

and the Home Office) are funding dissemination trials in a variety of evidence-based programmes, including Nurse-Family Partnership (see Olds *et al*, 1998 for a review), the IY parent programme (Webster-Stratton, 1989), Multidimensional Treatment Foster Care (Chamberlain, 1998), Multisystemic Therapy (Henggler, 1999), Triple-P programmes (Sanders, Marki-Dadds & Turner, 2003) and Strengthening Families (Kumpfer & DeMarsh, 1983). All are North American programmes with the exception of Triple-P, which was developed in Australia, and the first four are Blueprints for Violence Prevention identified by the Center for Violence Prevention, US⁵. In their Flying Start initiative, the Welsh Assembly Government are targeting parents of young children in school catchment areas where at least 45% of children are eligible for free school meals and have committed funds to research the new IY infant/toddler programme. The previous training and research record with the IY programmes in Wales means that local authorities are keen to participate in the proposed RCT evaluation.

The US led the way in researching effective child mental health initiatives to prevent or reduce violence. The UK, with its better funding of child health and education services, now has the opportunity to take a lead in addressing how to deliver effective services and implement them with fidelity in regular mainstream services. As this article demonstrates, the three IY studies in Wales and the trials across England are providing important lessons in how to engage service providers in high quality research in which they deliver evidence-based interventions with fidelity and, in return, receive a number of benefits (see *Tables 1 and 2*).

Summary of policy and practice implications

- It is no longer acceptable for services to be commissioned that do not either use evidence-based programmes or evaluate alternatives in rigorous trials.
- There are plenty of evidence-based programmes to address child mental health difficulties but some have much better tools to enable services to deliver them well. These include training, supervision and resources and materials for programme leaders and participants. Services should choose programmes that clearly incorporate these tools for fidelity.
- The work described in this article demonstrates the need for well supported, highly skilled and knowledgeable staff with collaborative skills and adequate resources. It is important for service providers to recognise what is needed to achieve long term change for high risk families.
- RCTs can be undertaken in service settings but the funds for such evaluations need to come from independent sources. Evaluators must work in collaboration with, but be at arms length from services.

Address for correspondence

Professor Judy Hutchings
Incredible Years Wales Centre
Nantlle Building
Normal Site
Bangor University
Gwynedd LL57 2PZ

Tel: 01248 383758

Email: j.hutchings@bangor.ac.uk

Web: www.incredibleyears.wales.co.uk

References

- Barlow J & Parsons J (2003) Group-based parent training programmes for improving emotional and behavioural adjustment in 0–3 year old children (Cochrane Review). *The Cochrane Library* (Issue 1). Oxford: Update Software.
- Bond GR, Evans L, Salyers M, Williams J & Hea-Won K (2000) Measurement of fidelity in psychiatric rehabilitation. *Mental Health Services Research* 2 (2) 75–87.
- Bywater T, Hutchings J, Daley D, Whitaker C, Jones K & Eames C (submitted). *Long-term Effectiveness of the Incredible Years Parenting Programme in Sure Start Services in Wales with Children at Risk of Developing Conduct Disorder*.
- Chamberlain P (1998) *Blueprints for Violence Prevention: Multidimensional Treatment Foster Care*. Colorado, US: Institute of Behavioural Science.
- Chen H (1990) *Theory-driven Evaluations*. Thousand Oaks, CA: Sage.
- Department for Training and Education *Parenting Action Plan: Supporting mothers, fathers and carers with raising children in Wales*. DfTE, Welsh Assembly Government Information Document No: 054-05, December 2005.
- Department for Training and Education, Flying Start (2005) *Children and Young People – Rights to Action*. Consultation Document. Accessible from: www.learning.wales.gov.uk
- Durlak JA (1997) *Successful Prevention Programs for Children and Adolescents*. New York: Plenum.
- Durlak JA & Wells AM (1998) Evaluation of indicated preventive intervention (secondary prevention) mental health programs for children and adolescents. *American Journal of Community Psychology* 26 775–802.
- Eyberg S & Ross AW (1978) Assessment of child behavior problems: the validation of a new inventory. *Journal of Clinical Child Psychology* 7 113–116.
- Gardner F, Burton J & Klimes I (2006) Randomised controlled trial of a parenting intervention in the voluntary sector for reducing child conduct problems: outcomes and mechanisms of change. *Journal of Child Psychology & Psychiatry* 47 1123–1132.
- Goodman R (1997) The strengths and difficulties questionnaire: a research note. *Journal of Child Psychology, Psychiatry, and Allied Disciplines* 38 (5) 581–586.
- Gresham FM, Cohen S, Rosenblum S, Gansle KA & Noell GH (1993) Treatment integrity of school-based behavioural intervention studies: 1980–1990. *School Psychology Review* 22 254–272.
- Henggler SW (1999) Multisystemic therapy: an overview of clinical procedures, outcomes, and policy implications. *Child Psychology and Psychiatry Review* 4 2–10.
- HM Government (2006) *Reaching Out: An Action Plan on Social Exclusion*. Available from: www.cabinetoffice.gov.uk/social_exclusion_task_force/publications/reaching_out/reaching_out.asp
- Hutchings J (1996) Evaluating a behaviourally based parent training group: outcomes for parents, children and health visitors. *Behavioural and Cognitive Psychotherapy* 24 149–170.
- Hutchings J, Appleton P, Smith M, Lane E & Nash S (2002) Evaluation of two treatments for children with severe behaviour problems: child behaviour and maternal mental health outcomes. *Behavioural and Cognitive Psychotherapy* 30 279–295.
- Hutchings J, Fearn K & Williams J (1980) A parent teaching group for parents of mentally handicapped children. *Behavioural Psychotherapy* 8 (3).
- Hutchings J, Gardner F & Lane E (2004) Making evidence-based interventions work. In: C Sutton, D Utting & D Farrington (2004) *Support from the Start: Working with Young Children and Their Families to Reduce the Risks of Crime and Anti-Social Behaviour*. Research Report 524 (pp69–79). London: Department for Education and Skills.
- Hutchings J, Lane E & Kelly J (2004) Comparison of two treatments of children with severely disruptive behaviours: a four-year follow up. *Behavioural and Cognitive Psychotherapy* 32 (1) 15–30.
- Hutchings J, Lane E, Ellis Owen R & Gwyn R (2004) The introduction of the Webster-Stratton Incredible Years Classroom Dinosaur School Programme in Gwynedd, North Wales: a pilot study. *Educational and Child Psychology* 21 (4) 4–15.

- Hutchings J, Bywater T, Daley D, Gardner F, Whitaker C, Jones K, Eames C & Edwards RT (2007a) Parenting intervention in Sure Start Services for children at risk of developing conduct disorder: pragmatic randomised controlled trial. *British Medical Journal* doi:10.1136/bmj.39126.620799.55.
- Hutchings J, Bywater T & Daley D (2007b) A pragmatic randomised controlled trial of a parenting intervention in Sure Start Services for pre-school children at risk of developing conduct disorder: how and why did it work? *Journal of Children's Services* 2 (2) 4–14.
- Hutchings J, Daley D, Jones K, Martin P, Bywater T & Gwyn R (2007c) Early results from developing and researching the Webster-Stratton Incredible Years Teacher Classroom Management Training Programme in North West Wales. *Journal of Children's Services* 2 (3) 15–26.
- Jones K, Daley D, Hutchings J, Bywater T & Eames C (2007) Efficacy of the Incredible Years Basic Parent Training Programme as an early intervention for children with conduct disorder and ADHD. *Child Care Health and Development* doi:10.1111/j.1365-2214.2007.00747.
- Kumpfer KL & DeMarsh JP (1983) *Strengthening Families Program: Parent Training Curriculum Manual*. Prevention Services to Children of Substance-Abusing Parents. Social Research Institute, Graduate School of Social Work, University of Utah.
- Martin PA et al *The Importance of Early School-based Intervention, and Testing the T-POT (the Teacher-Pupil Observation Tool): Developing and Validating a Teacher and Classroom Observation Measure Designed to Evaluate School-Based Interventions*. (submitted).
- Mihalic S, Fagan M, Irwin K, Ballard D & Elliot D (2002) *Blueprints for Violence Prevention Replications: Factors for Implementation Success*. Boulder, CO: Centre for the Study and Prevention of Violence, University of Colorado.
- Mills SC & Ragan TJ (2000) A tool for analyzing implementation fidelity of an integrated learning system (ILS). *Educational Technology Research and Development* 48 21–41.
- Moncher FJ & Prinz RJ (1991) Treatment fidelity in outcome studies. *Clinical Psychology Review* 11 247–266.
- Morch WT, Clifford G, Larsson B, Rypdal P, Tjeflaat L J et al (2004) *The Incredible Years: The Norwegian Webster-Stratton Programme; 1998–2004*. Available from: <http://www.incredibleyears.com>
- National Institute for Health & Clinical Excellence (NICE) (2006) *Parent-Training/Education Programmes in the Management of Children with Conduct Disorders*. NICE technology appraisal guidance 102. SCIE, NHS: London. Available from: www.nice.org.uk/TA102
- Olds D, Hill P, Mihalic S & O'Brien R (1998) *Nurse-Family Partnership: Blueprints for Violence Prevention, Book Seven* (DS Elliott, Series Editor). Boulder, CO: Center for the Study and Prevention of Violence, Institute of Behavioral Science, University of Colorado.
- Pathfinder & FIP projects. Available from: www.respect.gov.uk/members/article.aspx?id=8846
- Peterson L, Homer AL & Wonderlich SA (1982) The integrity of independent variables in behaviour analysis. *Journal of Applied Behaviour Analysis* 15 477–492.
- Reid JM & Baydar N (2004) Halting the development of conduct problems in Head Start children: the effects of parent training. *Journal of Clinical Child and Adolescent Psychology* 3 (2) 279–291.
- Reid MJ, Webster-Stratton C & Beauchaine TP (2001) Parent training in Head Start: a comparison of program response among African American, Asian American, Caucasian, and Hispanic mothers. *Prevention Science* 2 (4) 209–227.
- Reid JM & Webster-Stratton C (2001) The Incredible Years parent, teacher and child intervention: Targeting multiple areas of risk for a young child with pervasive conduct problems using a flexible, manualized treatment program. *Cognitive and Behavioral Practice* 8 377–386.
- Sanders MR, Marki-Dadds C & Turner K (2003) Theoretical, scientific and clinical foundations of the Triple P-Positive Parenting Program: a population approach to the promotion of parenting competence. *Parenting Research and Practice Monograph 1*. The Parenting and Family Support Centre: University of Queensland. Available from: http://www.triplep.net/files/pdf/Parenting_Research_and_Practice_Monograph_No.1.pdf
- Scott S, Spender Q, Doolan M, Jacobs B & Aspland H (2001) Multicentre controlled trial of parenting groups for childhood antisocial behaviour in clinical practice. *British Medical Journal* 323 194–203.
- Shapiro DA & Shapiro D (1983) Comparative therapy outcome research: methodological implications of meta-analysis. *Journal of Consulting and Clinical Psychology* 51 42–53.
- Skiba R & Casey A (1985) Interventions for behaviourally disordered students: a quantitative review and methodological critique. *Behavioural Disorders* 10 239–252.
- Tapsfield R & Collier F (2005) *The Cost of Foster Care: Investing In Our Children's Future*. The Fostering Network, British Association for Adoption and Fostering.
- Taylor TK & Biglan A (1998) Behavioural family interventions for improving child-rearing: a review for clinicians and policy makers. *Clinical Child and Family Psychology Review* 1 41–60.
- Taylor TK, Schmidt F, Pepler D & Hodgins H (1998) A comparison of eclectic treatment with Webster-Stratton's parents and children series in a children's mental health center: a randomized controlled trial. *Behavior Therapy* 29 221–240.

- Utting D, Monteiro H & Ghate D (2007) *Interventions for Children at Risk of Developing Antisocial Personality Disorder*. Report to the Department of Health and Prime Minister's Strategy Unit. Policy Research Bureau.
- Vermilyea BB, Barlow D H & O'Brien GT (1984) The importance of assessing treatment integrity: an example in the anxiety disorders. *Journal of Behavioural Assessment* **6** 1–11.
- Webster-Stratton C (1989) *The Incredible Years: The Parents and Children Series*. Seattle, WA: University of Washington.
- Webster-Stratton C (1998) Preventing conduct problems in Head Start children: strengthening parenting competencies. *Journal of Consulting Clinical Psychology* **66** 715–30.
- Webster-Stratton C (1995, revised 2003) *The Teachers and Children Series*. 1141 Seattle, WA: University of Washington.
- Webster-Stratton C (1990, revised 2003) *The Children's Series*. Seattle, WA: University of Washington.
- Webster-Stratton C & Hancock L (1998) Parent training for young children with conduct problems: content, methods, and therapeutic processes. In: CE Schaefer (Ed) *Handbook of Parent Training*. New York, NY: John Wiley & Sons.
- Webster-Stratton C and Herbert M (1994) *Troubled Families - Problem Children, Working with Parents: A Collaborative Process*. Chichester, England: John Wiley and Sons.
- Webster-Stratton C, Reid JM & Hammond M (2001) Preventing conduct problems, promoting social competence: a parent and teacher training partnership in Head Start. *Journal of Clinical Child Psychology* **30** 238–302.
- Webster-Stratton C, Reid M J & Hammond M (2004) Treating children with early-onset conduct problems: intervention outcomes for parent, child, and teacher training. *Journal of Clinical Child and Adolescent Psychology* **33** (1) 105–124.
- Woolfenden SR, Williams K & Peat J (2001) Family and parenting interventions in children and adolescents with CD and delinquency aged 10-17 (Cochrane Review). *The Cochrane Library* Issue 3. Oxford, UK: Update Software.

Endnotes

- ¹ The Government is funding a series of Parenting Early Intervention pathfinders in 18 local authorities to determine whether a particular model should be implemented nationally.
- ² See www.incredibleyears.com for background and research evaluations.
- ³ Sure Start is a Government programme operating in England and Wales that brings together childcare, early education, health and family support services for families with children aged 0–4 years.
- ⁴ CAMHS refers to specialist child and adolescent mental health services.
- ⁵ See www.colorado.edu/cspv/blueprints/index.html.

About the authors

Professor Judy Hutchings is a clinical child psychologist who has worked on developing and evaluating parenting programmes for parents of children with behavioural difficulties for the last 30 years. For the last 20 years, she has held a joint post between the North West Wales NHS Trust and Bangor University and she established the Incredible Years (IY) Wales centre to disseminate training and research information about the programme. She served as an expert witness on the NICE (National Institute for Clinical Excellence) committee on parenting and conduct disorder. Judy also served on the expert committee to review evidence-based programmes to prevent or reduce violence, which published its report *Support from the Start* by the Department for Education and Skills in 2004.

Dr Tracey Bywater is a research psychologist specialising in research with children and families at Bangor University. She was project trial co-ordinator for the Welsh Sure Start study evaluating the Incredible Years Basic Parenting Programme in 2003. She is currently principal investigator for an evaluation of the Incredible Years Programme with foster carers in North- and Mid-Wales and is a collaborator on an RCT of the Parent Programme in Ireland.

Catrin Eames is a postgraduate student at Bangor University studying a PhD investigating implementation fidelity of the Incredible Years BASIC Parenting Programme. She worked as a Research Assistant for the Welsh Sure Start Study.

Pam Martin is a PhD student currently evaluating the Incredible Years Teacher Classroom Management Programme in Primary Schools in Gwynedd. Pam also contributed to the Welsh Sure Start study.