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Implementing evidence-based programmes in children's services: key issues for success

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The views expressed in this report are the authors' and do not necessarily reflect those of the Department for Education.

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Audience

People who are not familiar with evidence-based programmes and are interested in understanding the issues related to implementing model programmes.

Executive Summary

Aims and objectives:

This report brings together the latest international thinking about the key issues relating to the implementation of evidence-based programmes, utilising both published work and expert opinion. The aim is to provide a summary of issues that should be considered and planned for by those about to start implementing a new programme in order to increase the chances of success; to draw attention to sources of further information; and to share lessons that have been learned by others when implementing similar programmes.

Key findings:

A model for implementation

Evidence suggests that a carefully planned and well-resourced implementation is key to better outcomes and programme success. Across disciplines, implementation researchers have devised a number of frameworks that can be used to encourage the best practice in implementation and greatest fidelity to the original programme. One of the best known of these implementation frameworks, primarily focused on social or educational programmes, was developed by Fixsen and colleagues (2005). This framework takes the view that to implement innovative programmes, change is required at the practitioner, supervisory and administrative support levels, as well as at the system level. The authors suggest there are four key stages to implementation: exploration and adoption; installation; initial implementation and full operation. These are shown graphically in the diagram below, together with two additional stages highlighted in the literature: sustainability and scale up.

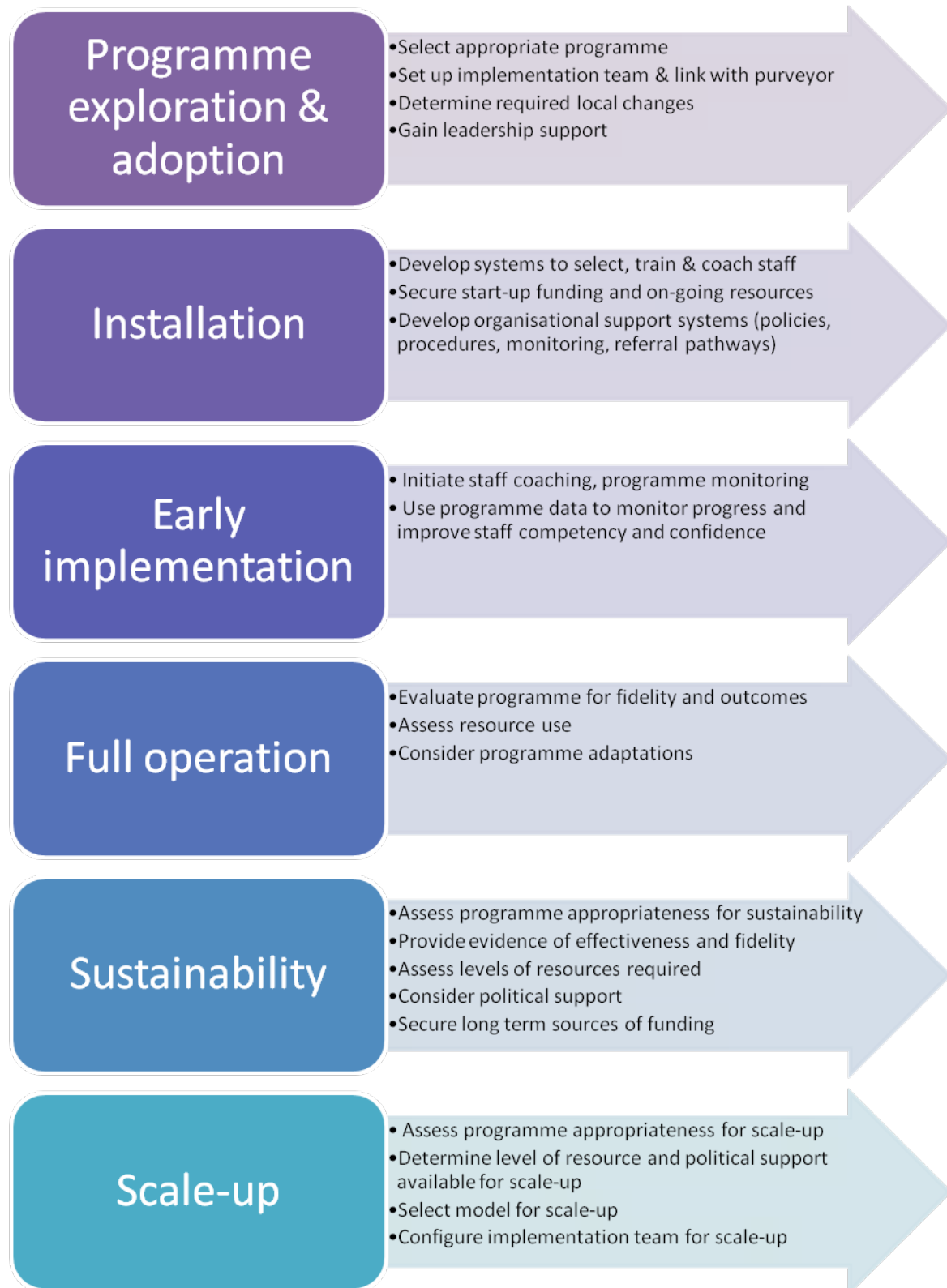
Stage 1: Exploration and adoption

Implementation is boosted by the selection of the most appropriate programme for a local area. Consideration should be given to exploring the findings from previous evaluations of the programme and asking the following questions: who received the services? What programme elements were actually delivered? Were achievements sufficient to justify costs? Can similar resourcing levels be provided locally?

Once a programme has been selected, implementation is aided by setting up a local implementation team, to determine what local changes will be required to adopt the programme. Programmes have been found to be more effective if the local model remains faithful to the original programme design. Fixsen and colleagues advocate the use of purveyors - individuals or groups who work in a systematic way with local sites to ensure that

they adopt a pure and effective model of the programme. Clear support from senior managers provides leadership and demonstrates commitment to the programme and can ensure that there are adequate resources for start-up and implementation.

Diagram One: Implementing evidence-based programmes: Six key stages



Stage 2: Installation

The programme installation stage is when structures are put in place to initiate the new practice. In this stage systems should be set up to select, train and coach practitioners in the new programme. Funding should be secured and organisational support systems put in place (policies, procedures, referral pathways).

Greater success can be achieved by putting systems in place to ensure fidelity; these should include clear delegation of this responsibility to specific staff, regular supervision and staff evaluation.

Stage 3: Initial implementation

In this stage, the implementation team addresses all the challenges that change brings to individual staff and the organisation, at a time when the workforce is gaining new skills. The team must focus particularly on coaching and using data to improve staff competence and confidence, change administrative procedures and manage expectations.

Stage 4: Full operation

Over time the innovation becomes “accepted practice”, staff are fully competent and new ways of working become routine. Implementation teams monitor programme fidelity and outcomes, with on-going systems in place (e.g. staff training and supervision, fidelity monitoring) to maintain a favourable organisational climate and a skilled and committed workforce.

Challenges to implementation

Implementation researchers have identified key areas for decision-makers in agencies delivering services to consider and work on in order to implement successfully evidence-based practice in a way that maintains a high degree of fidelity to the intervention model whilst valuing practice-based knowledge. These include:

- The attitude of providers;
- Characteristics of the client population;
- Characteristics of usual practice;
- Organisation factors – leadership; and
- Resource availability.

Sustainability

Four components have been identified as crucial to maintaining a successful programme: capacity; the nature of the innovation; evaluation and monitoring of fidelity; and the context. Securing longer term funding relies on being able to demonstrate cost effectiveness, promoting a 'shared vision' about an innovation, and ensuring that local commissioners of services and other key local professionals value the programme and see it as enhancing local service provision and improved outcomes.

Sustainability is enhanced when a programme has been able to develop a stable group of skilled practitioners, who have a positive attitude towards the programme. Also key to sustainability are an organisational culture and structure that foster the new practices.

Scale-up

Following the successful implementation of an evidence-based programme in a new setting, the next stage for policy makers is to decide whether, and how, to effectively broaden its reach. This might be through scaling-up capacity within the original local area where a programme was previously implemented, or it may be through increasing the number of sites across a region or country. Three different examples of scaling-up evidence-based programmes are described: the Cascading training model, Community Development Team model; and Rolling cohort model.

International examples of implementation

This report also explores experiences of implementing four evidence-based programmes: Multi-Systemic Therapy (MST), Functional Family Therapy (FFT), Multidimensional Treatment Foster Care (MTFC), and the KEEP foster carers programme. The international experience of transferring these programmes from their original settings to England as well as to a number of other countries underlines that it is possible to successfully implement them in a different cultural context. Innovative solutions have been found to overcome cultural differences, language barriers, and different system structures.

Some programme sites have however found implementation and/or the replication of original success unachievable; and in other sites programmes have been successfully implemented but found to be unsustainable when reliant on local funding.

1. Purpose of report

This report has been written for policy makers, senior managers and those who commission children's services to provide evidence to help them as they consider ways of implementing evidence-based programmes into their own local areas. It brings together the latest international thinking about the key issues relating to the implementation of evidence-based programmes, utilising both published work and expert opinion. The aim is to provide a summary of issues that should be considered and planned for by those about to start implementing a new programme in order to increase the chances of success; to draw attention to sources of further information; and to share lessons that have been learned by others trying to implement similar programmes. Some of these issues are common to implementing any change in any organisation, others are specific to the programme being implemented.

There are two sections in this report. The first draws together the evidence and highlights common themes concerning successful implementation of evidence-based interventions. The second section explores experiences of implementing a number of specific evidence-based programmes, including Multi-Systemic Therapy (MST), Functional Family Therapy (FFT), Multidimensional Treatment Foster Care (MTFC), and KEEP foster carer training from countries, including England, where implementation is already ongoing. These four programmes are described in the box on page 10. The lessons from the implementation of these four programmes are reflected in the common themes discussed in the first section of the report.

2. Policy background

In parts of the devolved administrations in the UK there is an increasing trend towards promoting the adoption of programmes that have been rigorously evaluated and come with a strong evidence base for effectiveness. The two Allen Reports on Early Intervention (Allen 2011a and 2011b) recommend the review, development and dissemination of rigorously evaluated evidence-based programmes as a means of improving the quality of Early Years services. The first Allen report identifies 19 'top programmes' that should be implemented in England, and suggests roles for both national and local policy makers in ensuring such services are commissioned. The second report suggests ways that such programmes might be supported through public and private funding innovations. The Munro Review of Child

Protection (Munro 2011) focuses on the need for practitioners to draw on evidence of the effectiveness of methods and supporting practice in their work with children and families. Additionally, the recent overview of the key messages from 15 research programmes focussing on identifying and responding to child maltreatment (Davies and Ward 2012) recommends implementing multi-faceted evidence-based programmes to respond to abuse and neglect.

Across disciplines there are many examples of programmes that have been rigorously evaluated and shown to be effective in their original setting, but less successful when set up and trialled elsewhere. Sometimes this reduced effectiveness appears to be related to a cultural mismatch in terms of the programme content, but often there are issues relating to its implementation in the new setting that influence how and what is delivered.

In response to such situations, over the last ten years especially, there has been growing interest and global academic focus on the issues relating to the successful implementation of evidence-based practice across a range of fields. A Global Implementation Conference is now being convened biennially (www.implementationconference.org) and journals are available specialising in implementation issues (e.g. *Implementation Science*). Social care interventions, including those relating to reducing the incidence and effects of child abuse and neglect, have been part of this emerging focus. For instance, recently a special issue of the journal *Research on Social Work Practice* was devoted to implementation research (2009, Issue19).

From this burgeoning discipline, a key message can be distilled: '*effective implementation is associated with better outcomes*' (Durlak & DuPre 2008). This definitive statement is based on a systematic review and meta-analyses of nearly 500 studies of implementation. It showed that when there was careful implementation without major problems, effect sizes were at least twice as great as for studies where these conditions did not exist (Durlak & DuPre 2008).

3. Methodology

The methodology used to compile this report consisted of a literature review undertaken initially using snowballing techniques following the identification of key experts in the field. This was followed by a systematic search of electronic databases (medline, web of knowledge; Google scholar) for previous reviews of implementation studies. For the second section of the report, electronic database searches were carried out for published academic

papers relating to the MST, FFT, MTFC, and KEEP programmes, with further Google searches to locate unpublished literature (e.g. conference presentations, newsletters, annual reports) relating to the implementation of these programmes. Overall more than 120 published papers and 43 conference abstracts informed this report. In order to accommodate the range of unpublished literature that is difficult to access, and to clarify points from the literature, telephone discussions were held with five UK experts (researchers and programme implementers). A further three international experts reviewed drafts of this report and offered suggestions about additional literature and issues to consider.

	Intervention	Programme support
Functional Family Therapy (FFT)	Family-focussed behavioural therapy for young people with a history of offending/high-risk behaviour. Average of 12 one-hour therapy sessions over 3 months.	<ul style="list-style-type: none"> • Initial and booster training for on-site supervisors & therapists • Manuals for treatment, training & supervision • Ongoing web-based monitoring of clinical fidelity
Multi-systemic Therapy (MST)	Intensive family and community based therapeutic support targeting young people with serious conduct problems and offending histories. Round-the-clock support for 3- 6 months, with multiple therapeutic contacts averaging 2 – 15 hours a week.	<ul style="list-style-type: none"> • Orientation and booster training for clinical staff and supervisors • Manualisation of programme components • Weekly clinical supervision • Monitoring of programme fidelity
Multi-dimensional Treatment Foster Care (MTFC)	Range of intensive foster care programmes for children and young people with serious conduct problems, tailored to pre-school/infants, to primary age children and to adolescents . Placement for 6-9 months with specially trained foster parents, and regular therapeutic support to the child/young person and their birth family.	<ul style="list-style-type: none"> • Orientation training for programme staff and supervisors • Foster carer training • Weekly consultation with programme supervisors • Monitoring of programme fidelity
KEEP: Keeping Foster and Kinship Parents Supported and Trained	A 16-week structured course of training, supervision, and support in behaviour management methods for groups of foster or kinship carers of children aged 5 -12 years.	<ul style="list-style-type: none"> • On-site training of programme staff • Manual to support implementation • Weekly phone supervision for one year

SECTION 1: Successful implementation of evidence-based programmes

4. Assessing the evidence: finding the right programme to implement

The Allen Report (2011a) highlighted programmes with top level research evidence, and other promising interventions. This report recommended the formation of an Early Intervention Foundation, which would provide an ongoing review of the most rigorously evaluated programmes. In the absence of such a body, a number of sources are available to policy makers that provide an assessment of the range and quality of the research evidence about specific programmes. These include, for instance:

- Washington State Institute on Public Policy (<http://www.wsipp.wa.gov/>) which provides cost-benefit analyses of evidence-based child welfare programmes that are widely used by US policy makers (Whittaker 2009);
- The systematic reviews of the Campbell Collaboration www.campbellcollaboration.org/ especially those of their 'Social Welfare Co-ordinating Group' which produces, maintains and disseminates systematic reviews about social care; and
- The systematic reviews of the Cochrane Collaboration www.cochrane.org/, notably those of their EPOC group which reviews interventions to improve professional practice and delivery of effective health services.

Commissioners should assess whether the evidence that exists suggests the programme could work with their local population, and with the existing agencies, referral structures and resources available. It is worth checking whether a programme has been shown to be effective when conducted by a group other than the programme developers and when carried out in different settings. Are the conditions in which the programme has previously been shown to be effective too far removed from a real-world setting? (See box on the following page for further questions to consider).

In England, especially in the multi-cultural communities in urban areas, it is also worth considering whether a programme will need to be implemented for some families with the assistance of interpreters and if so, how this might change both the therapeutic and organisational aspects of the programme. The Family Nurse Partnership programme in England has successfully managed to incorporate interpreters into their practice, a change

from the original programme delivered in the US, but has noted that that this has impacted on programme delivery with fewer topics covered, less client engagement and potentially less of a 'strengths-based focus' (Barnes 2011).

Questions for decision makers to ask when looking at the evaluations of programmes they are considering implementing:

1. Is the evaluation design strong enough to produce trustworthy evidence? *Was there a comparison group? Was the evaluation carried out by independent experts? Has this study been assessed by other researchers (e.g. have the findings been published in a peer-reviewed journal?)*
2. What programme services were actually received by participants and comparison groups? *What was achievable in a real world setting?*
3. How much impact did the programme have? *Are these impacts the ones that are relevant to you?*
4. Do the programme's benefits exceed its costs? *In your context, would the required costs be justifiable for the effects that have been achieved?*
5. How similar are the programmes, children, young people and families in the study to those in your constituency or community? *If different, is there any evidence that the effects found in the study could be transferred to a community such as yours?*

(Adapted from National Forum on Early Childhood Program Evaluation 2007)

Further information on assessing the strength of evidence can be found in the appendices of this document prepared by the Institute of Education Sciences in the US: *Identifying and Implementing Educational Practices Supported By Rigorous Evidence: A User Friendly Guide* (2003).

5. Common principles to follow: a framework for successful implementation

Once a programme has been selected, then the planning process for implementation should begin. Across disciplines, implementation researchers have devised a number of frameworks that can be used to encourage the best practice in implementation and greatest fidelity to the original programme. One of the best known of these implementation frameworks, primarily focused on social or educational programmes, was developed by Fixsen and colleagues, following a systematic review of implementation research across a number of fields (2005). We describe below the background and key components of their framework.

'In human services, the practitioner is the intervention' (Fixsen et al 2009, p.532). In order to implement evidence-based programmes successfully in typical human service settings, such

as children's services, the core components have to be built into the daily performance of thousands of practitioners in the diversity of provider organisations functioning within different types of service systems. Successful implementation of evidence-based programmes in children's services settings, as with other educational or welfare services, is therefore a much more challenging process than introducing efficacious pharmaceutical products, for example, or effective computer systems. On average it takes two to four years to fully establish evidence based programmes in a community (Fixsen 2005).

Many experts consider that a sustained and *active* process of implementation is required to achieve high fidelity with what has been proven to benefit users (Fixsen et al 2009, p.532 quoting Greenhalgh et al 2004). Fixsen and colleagues (2009) suggest that what is required is for outside experts (purveyors) to work with organisations, systems and practitioners in order to transform a variable, practitioner-centred service to one that is programme-centred and evidence-based. The quality of the implementation process and its outcomes exists independently of the quality of the programme or practice being implemented. Both are key to producing and maintaining better services.

Fixsen and colleagues (2009, p.533) propose a framework to create and support high fidelity practitioner behaviour that is composed of the following *integrated* core implementation drivers, which we outline in turn:

- Staff recruitment and selection;
- Pre-service training;
- Consultation and coaching;
- Staff performance evaluation;
- Decision support data systems;
- Facilitative 'administrative' (management) support; and
- Systems interventions.

They conceptualise staff selection, training, coaching and evaluation as competency drivers; whereas decision support data systems, facilitative administration and systems interventions are considered organisational drivers. These competency and organisational drivers reinforce each other and have been shown to be much more effective in implementing and sustaining programmes when used together (Joyce and Showers 2002). Innovative programmes require change at the practitioner, supervisory and administrative support levels, as well as at the system level. Change to one core driver requires adjustments to the others. Feedback from staff performance evaluation and decision support data systems informs what changes are required to other elements of the framework, and keeps the

programme on track in a context of organisational change. These implementation drivers are also compensatory – if the process is designed to be strong in one component, this can compensate for relative weakness in another area, yet still maintain high fidelity implementation.

Competency driver: staff recruitment and selection

Staff should be recruited and selected in a way that takes account of academic qualifications, experience and practitioner characteristics, especially those that are difficult to teach in training sessions, such as empathy or a sense of social justice. Careful staff selection is especially important in programmes with specific and complex practitioner requirements and less so in more straightforward programmes, such as those designed for volunteer staff. It helps when the staff selected are willing and able to be fully involved in the intervention and are positive about it. Staff selection intersects with a variety of larger systems, e.g. the availability of a suitable workforce.

Competency driver: pre-service and in-service training

Pre-service and in-service training are key to learning new approaches and new skills in a safe training environment. Training should include theory and discussion, combined with demonstration, practice and feedback. However, the evidence shows that training and information dissemination by themselves are ineffective as an implementation strategy (Fixsen 2009). It is important therefore that they are introduced alongside ongoing coaching on the job and other components of an integrated implementation framework.

Competency driver: coaching and consultation

Research conducted in the field of leadership development suggests that on-the-job coaching is an effective way to drive behaviour change within an organisation (e.g. de Vries & Manfred 2005). A coach helps key practitioners, managers and support staff learn the skills that the innovation requires and refine what they have learnt in training within their daily practice with service users, by providing advice, encouragement and feedback to staff employing the skills inherent to the innovation being implemented. The coach acts as a leader at an individual, team and organisational level to drive change. Fixsen's implementation strategy prescribes coaching both at the outset and throughout the life of the intervention.

Competency driver: staff performance evaluation

The purpose of staff evaluation is twofold. Firstly, it helps ensure that the new programme is successful with its users. It provides feedback to practitioners to enable them to improve their effectiveness. Evaluation also provides feedback to the staff who are supporting the implementation process, such as trainers, managers and purveyors. It enables them to improve selection, training and coaching procedures. Staff performance evaluation should include measures of programme fidelity in order to help staff supporting the implementation process to stay on track. It could also include aspects relating to staff satisfaction, practice change, and the perceived impact of the programme.

Organisational driver: decision support data systems

Other data which measure the performance of the organisation (such as consumer outcome data and quality improvement data) can be used to guide policy and practice-level decisions to help the organisation improve continuously. As with staff evaluation, these process and outcome data can be used to help maintain fidelity to the programme and ensure the implementation process is sustained in an effective way.

Organisational driver: facilitative 'administrative'¹ (management) support

Having facilitative support from senior managers provides leadership for the implementation process and demonstrates commitment to it, for example through setting explicit goals. It also helps to have leadership support 'to align policies, procedures, structures, culture and climate' (Fixsen et al 2009, p.535) to ensure practitioners have the skills and resources to work effectively with clients.

Organisational driver: systems interventions

Systems intervention strategies ensure that the resources required to support practitioners' work are available from external systems, including resources for start-up and the additional costs associated with the maintenance of a programme that remains faithful to its evidence base.

Stages of implementation

Fixsen and colleagues (2005) define four implementation stages:

- exploration and adoption;

¹ 'Administrative', in this case, is the US definition which refers to the senior managers (the Administration) who oversee an organisation, rather than secretarial support (Blase K, personal communication 2012)

- installation;
- initial implementation; and
- full operation.

Implementation is not a linear process, as the stages overlap. Setbacks, or on-going problem solving, may require a return to earlier stages. Implementation is more likely to be successful where experienced purveyors work with local implementation teams throughout every stage of the process, because it is a challenging one (Blase et al In press). Each of these implementation teams is a group of individuals, made up of local decision-makers, managers and practitioners, who guide the implementation process from the exploration stage through to full implementation.

Roles of 'purveyors'

Purveyors are individuals or groups who work in a systematic way with local sites to ensure that they adopt a pure and effective model of that programme or practice (Blase et al 1984; Stetler et al 2006). Often purveyors are employed by the company who owns the programme, but some can be independent. Purveyors can be from the private, public or voluntary sector, with a variety of funding arrangements.

In the highly centralised version of the purveyor approach, the process of implementation is led by and consistently linked to the work of the external company or academic organisation that has developed and owns the intervention model. For example, the central company determines the staff selection criteria, trains practitioners from implementation sites at a central location and, in the early stages, at the implementation site, evaluates regular submissions of fidelity results, and provides regular consultation by telephone to programme supervisors and practitioners. The local site selects staff according to the criteria laid down, and provides administrative support. This centralised version has been used when implementing, for instance MST and FFT programmes in new sites in the USA and, with some modifications, in their international sites (Schoenwald et al 2000; Sexton and Turner 2010).

A less centralised approach is to develop regional implementation sites. The programme developers train and coach staff from the implementation site to act as purveyors. So each site implements the programme/practice without ongoing reliance on the external organisation. Procedures within each site must be developed to measure fidelity to each component of the implementation process. (An example of this approach is the Teaching-Family Model – Wolf et al 1995.)

Example: What is offered by the purveyors of MTFC at the start up of new sites (both in the USA and internationally)

- Site visit by the company that represents the developers of MTFC prior to implementation to explain model and implementation procedures to all stakeholders.
- Four-day training session for programme staff (five days for programme supervisors) at the US model site.
- Consultation re: foster carer recruitment, as needed.
- Two-day training of first group of foster carers on site.
- WebPDR (web-based parent daily report) procedures set up, with staff training.
- Weekly telephone consultation with programme supervisors to review cases.
- Periodic reports on implementation progress, staff performance and model adherence. The quarterly review codes videotapes of the site's weekly foster carer and clinical meetings for adherence to MTFC principles and procedures.
- Up to six days of additional on-site consultation.

After sites have developed confidence and competency in the model, other arrangements can be adopted. In England, for instance, after the first few years training has been provided by the English national team through their network partnership role.

(Sourced from the programme website: www.MTFC.com, March 2012)

Exploration and Adoption Stage

In this phase, purveyors guide local senior managers and practitioners in identifying programmes/practices that match identified need and resources. Purveyors ensure that local stakeholders understand what changes are required to implement the programme/practice and secure their commitment to it. Some programmes require that staff vote to adopt the programme as evidence of buy-in.

At this stage, implementation teams work with the organisational drivers to secure a favourable organisational culture and a 'hospitable funding environment' (Blase et al In press) and plan the competency drivers necessary to create a skilled workforce.

Installation Stage

The programme installation stage is when structures are put in place to initiate the new practice. *Competency drivers* are set up to best select, train and coach practitioners, *organisational drivers* set about securing start-up costs and on-going funding streams and changing systems to support the programme (for example, policies, procedures, referral mechanisms and computer systems), and leadership drivers work on changing the wider organisational culture.

Initial Implementation

In this stage, implementation teams must overcome barriers and address all the challenges that change brings to individual staff and the organisation, at a time when the workforce is gaining new skills. The team must focus particularly on coaching and using data to improve staff competence and confidence (competency drivers), change administrative procedures and manage expectations (organisational drivers). Leadership strategies maintain focus, enable stakeholders to identify and solve problems and avoid premature decisions about efficacy.

Full Operation

Over time the innovation becomes “accepted practice”, staff are fully competent and new procedures become routine. At this stage the anticipated benefits of practising the programme with fidelity should be apparent (Fixsen et al 2005), and thus reinforce commitment at all levels to the evidence-based practice. Implementation teams monitor programme fidelity and outcomes, and implementation drivers maintain a favourable organisational climate and a skilled and committed workforce.

6. Alternative models for implementation of evidence-based practice

The framework devised by Fixsen and colleagues is considered by many to be the ideal for ensuring successful implementation of evidence-based programmes. However, this may not be possible to achieve in some situations. The two main areas of debate around this type of model are related to resource and programme fidelity issues, discussed in turn below.

Less resource intensive models

One key constraint to the uptake of the type of implementation framework discussed above is the lack of financial resources (McHugh et al 2009; Kazak et al 2010). Such a framework

would be difficult to follow if there were insufficient resources to support the additional costs of on-going training and of maintaining checks on programme fidelity through the use of purveyors. Additionally, high staff turnover is a common situation in both the voluntary and public sectors in the UK. While this is an inevitable part of these work systems, it needs to be taken into account when considering the implementation of evidence-based practice in children's services (Aarons et al 2011). For successful implementation, following the model framework discussed above, sufficient resource will be required to ensure that all new staff receive the same rigorous training in the programme practices as did those who were originally in post. In a financially constricted environment with the additional component of high staff turnover, this may prove challenging.

In response to the criticism and/or concerns relating to the on-going costs associated with carrying out a programme under formal licence with a programme developer, some programme developers are testing ways of adapting the relationship with implementation sites that still support programme fidelity. One example is the cascading model of training for KEEP (Chamberlain et al 2012), which is described on page 25 of this report. Some evidence-based programmes are usually carried out without the continued involvement of the original purveyor once training qualifications have been achieved, (for instance, the Webster Stratton parenting programme or Parent-Child Interaction Therapy). However, the implementers and researchers consulted for this report suggest that it is imperative that in a model that does not have a formal purveyor relationship, a site must instead have a staff member who has the explicit role of ensuring that implementation of the programme continues as it was originally intended. Without this role, formalised in a job description and explained to those practitioners being trained, programmes have a tendency to drift in terms of frequency and/or content of implementation.

Programme adaptation models

Some researchers and practitioners believe that an implementation model, such as the one from Fixsen and colleagues, which stresses fidelity to the original programme and puts in place systems to monitor and support this, is too prescriptive and impractical in complex settings such as those of children's services. They argue that it is inevitable that when an evidence-based programme is implemented it will need to be adapted to fit both the local population and the local service context (Murray et al 2010). However, to date there is less evidence that locally adapted models lead to successful implementation (Farmer et al 2010, Durlak & DuPre 2008). One recent UK example of this was the pilot Young People's Development Programme: this was based on the Carrera youth programme from the US

(Philliber 2002) but was heavily adapted for implementation in England, and was not able to replicate the positive outcomes of the original (Wiggins et al 2009).

Other researchers suggest preserving and remaining faithful to key components of the original evidence-based programme, but allowing room for '*contextually sensitive strategies to determine how the content will be configured*' (Chorpita et al 2007; Garland et al 2008; Mitchell 2011). Mitchell (2011) suggests that a strategy for the implementation of evidence-based practice in children's services that integrates best available scientific evidence with professional expertise and client values is likely to be most successful in practice. She suggests that each has a particular contribution to make, which makes an integrated approach work well. Clinical science is often best placed to provide the contents or 'what' of therapeutic interventions, such as a cognitive or behavioural programme, whereas practice wisdom offers expertise concerning the 'how' of therapeutic interventions, such as taking a client-centred or relationship-based approach.

At the scaling-up phase, there are a number of alternatives to the single purvey or single programme models of dissemination that are being developed in the US (Whittaker 2009). One example that has been evaluated is the Project Prime Time programme, for young people with mental health problems who are repeat offenders, which is based on MST but has integrated components of other evidence-based therapeutic practices (<http://www.ncmhji.com/Blueprint/programs/PrimeTime.shtml>).

Local implementers and researchers consulted for this report, as well as the examples of implementation in Section 2, suggest that in practice there are likely to be some adaptations made to evidence-based programmes. Adaptations that are planned in advance and in a dialogue with programme developers may be best in preserving positive programme outcomes (Durlak & DuPre 2008).

7. Barriers and facilitators in the implementation of evidence-based practice

Implementation researchers have identified a number of factors as key areas for decision-makers in service delivery agencies to consider and work on in order to successfully implement evidence-based practice in a way that maintains a high degree of fidelity to the intervention model whilst valuing practice-based knowledge ('practice wisdom') (Mitchell 2011). These highlighted factors are especially important for decision makers in children's services to address when new models of working are introduced. This is because these factors are most likely to have an impact on implementation in contexts where professionals

are working in diverse or difficult settings, where individual client-practitioner relationships are at the heart of the intervention, and where the intervention is language-based and/or where it is client-directed (Mitchell 2011; Larner 2009). In addition to addressing the following possible barriers and facilitators, decision-makers who are developing or enhancing their own site readiness processes may benefit from considering the items in the Implementation Checklist developed by the Swedish National Institute of Public Health (see Appendix A) to see if there are additional aspects of implementation they might usefully consider.

Attitudes of providers

The nature and quality of the practitioner's work is fundamental to successful evidence-based practice implementation within children's and other welfare services, so the practitioner's attitude towards the new initiative is key. Decision-makers must address practitioner scepticism and encourage them to feel committed to the new practice. Practitioners are most likely to be sceptical about the value of adopting programmes where they are working in complex front-line settings, and they are being asked to adopt new interventions that research has found to be effective for particular conditions or uniform groups in controlled settings (Larner 2004; Weisz et al 2006).

Characteristics of the client population

Practitioners may feel justified in deviating from intervention guidelines when they work with clients with complex conditions living in chaotic or conflict-ridden environments, where the context is not directly targeted by the intervention, where clients' cognitive abilities or lack of co-operation mean they are unable or unwilling to follow prescriptive guidelines, or where the intervention is directed by the client (Godley et al 2001; Hogue et al 2008).

Unless project managers have anticipated potential adaptations of this nature, new intervention models can be undermined by ad-hoc changes to new protocols made by individual practitioners in these circumstances.

Characteristics of usual practice

Implementation appears to be more successful where practitioners see that an evidence-based programme is compatible with current practice, or where they recognise that innovation will facilitate existing practice, for example by adding structure to it (Aarons & Sawitzky 2006; Mitchell 2011). In contrast, settings that emphasise clinical freedom, autonomy of individual practitioners, diversity of practice and/or are strongly client-centred

may act as barriers to implementation of evidence-based practice (Aarons & Palmer 2007; Godley et al 2001; and Miller & Duncan 2000).

Organisational factors

Just as a fit between current practice and an evidence-based innovation helps at the individual practitioner level, a fit between the aims of the organisation and the goals of the evidence-based practice facilitates implementation. Research focused on children and young people's services suggests that practitioners in open, flexible and risk-tolerant organisational cultures are more receptive to the introduction of evidence-based practice. There tends to be more use of evidence-based practice and programmes where management supports quality in practice and the organisational culture is performance-based. Positive leadership is essential to overcome setbacks, uncertainty and negative practitioner attitudes. Networking with other agencies and sharing information and ideas is associated with uptake of evidence-based practice (Henderson et al 2007 & 2008).

Resource availability

As described in the framework section above, effective implementation of evidence-based innovations requires extensive and sustained development of the workforce and of integrated systems and organisations that support the staff involved. This involves long-term investment of financial and other resources (Fixsen et al 2009; Mitchell 2011; Weisz et al 2003).

8. Sustainability

After a pilot phase of implementation, it is important for there to be an assessment of whether it is appropriate to continue with the new programme. This decision may be dependent on the programme's evaluation outcomes or costs, the level of appropriate potential service users and/or the political and resource context. There has been less empirical work on barriers and facilitators to sustaining the implementation of evidence-based programmes than on those that impact on their introduction (Greenhalgh et al 2004), and no key comprehensive conceptual model for sustainability of these types of programmes has been developed (Aarons et al 2011). A recent review by Stirman and colleagues of influences on the sustainability of new evidence-based programmes identifies four components to address: capacity; the nature of the innovation; evaluation and monitoring of fidelity; and the context (Stirman et al 2012). Elements within these components overlap so once in place they reinforce one another.

Capacity

Securing sufficient on-going financial resources is key to sustaining evidence-based programmes because the costs of ongoing training and certification by the owners of the intervention are often high. Evidence-based programmes in Europe are frequently instigated using central government funding, therefore in order to ensure that programmes are sustained often requires a shift from central government short term funding to new local and long term funding sources. Securing longer term funding relies on being able to demonstrate cost effectiveness, promoting a 'shared vision' about an innovation and ensuring that local commissioners of services and other key local professionals value the programme and see it as contributing to local service provision (Barnes 2010). It may be safer to secure funding from a range of sources, within the field of health and social care, to avoid reliance on one funder. For instance, funding for the continued implementation of a programme could come from the budgets of social care, mental health and youth offending. An additional potential benefit of such multiple funders is that each can act as a source of clients for the programme.

It is important to build a stable group of skilled practitioners, who have a positive attitude to the programme (Stirman et al 2012); to ensure that there is an ongoing training programme and adequate supervision for staff (Stirman et al 2012; Scheirer et al 2008); and to ensure that the organisation has the expertise within the workforce to ensure that the necessary components are in place to sustain the programme (Scheirer 2005). Additionally, Aarons and colleagues (2010) suggest that sustainability is enhanced when a critical mass of staff within an organisation and across a service system are all delivering a particular programme.

Nature of the programme

There needs to be an understanding of how the programme fits into the range of provision within the department or sector. Characteristics of some programmes make them more sustainable than others. Programmes that fit closely with the mission and culture of the wider organisation are more likely to be supported by other managers and staff within the organisation. Programmes may be more sustainable if they have a degree of flexibility so they can be modified to fit the changing requirements of the local context (Stirman & Scheirer 2005).

Sustainability is facilitated where the benefits of a programme to service users and staff are obvious (Scheirer 2005). Where the programme is more resource-intensive in the short-term when compared with other provision, evidence of its efficacy in the local context may act as an incentive to spread elements of the programme within the wider service, and this would

help to embed it. It is beneficial to integrate the evidence-based approach into the core operations of an organisation (routine practice) rather than operate it as a 'stand alone' service (Scheirer 2005).

Evaluation and monitoring of fidelity

It is important that the programme is rigorously evaluated in the local context, rather than relying on evaluations done in other settings. This provides evidence that the programme can work effectively in a setting other than the one it was originated in. Also it is important to keep track of wider reviews of the programme, or similar initiatives, within the UK context, and of other evaluations particularly within children's services, to assess whether this programme remains the most relevant for your local context. Programme fidelity should be monitored through audit, feedback and building 'triggers' (conditions that must be met before actions can take place) into the process of care (Stirman et al 2012).

Context

A policy context and future strategy within children's services that supports a programme and its outcomes is key to sustainability, as are an organisational culture and structure that foster the new practices. Having an effective local champion may help, who can take a lead in planning for sustainability, and promote the programme within the organisation or local authority and to stakeholders in other organisations or elsewhere in the local authority (Scheirer 2008).

9. Scaling up an evidence-based intervention

Following the successful implementation of an evidence-based programme in a new setting, the next stage for policy makers is to decide whether, and how, to effectively broaden its reach. This might be through scaling-up capacity within the original local area where a programme was previously implemented, or it may be through increasing the number of sites across a region or country.

Scaling up can be complicated by the fact that organisations or local authorities which were 'early adopters' are likely to have greater infrastructural or organisational interest and capacity for an evidence-based programme than those which were not part of the initial implementation (Chamberlain et al 2008).

There are key questions to be addressed prior to scaling up an intervention to determine organisational 'readiness'. For instance:

- Who is going to manage the overall programme to ensure consistency and fidelity?
- Are the resources in place for a wider roll-out – not only financial resources but also people with appropriate skill sets, administrative structures, organisational capacity?

There is a wide literature on how to scale-up evidence-based interventions. Much of this focuses on health innovations (e.g. national programmes for new family planning methods), or on the adoption of educational interventions in schools. At the University of North Carolina in the US, the State Implementation & Scaling-up of Evidence-based Practices (SISEP) Centre provides free materials relating to scale up (<http://sisep.fpg.unc.edu/>), which although focused on educational interventions, could prove helpful when considering broadening the scope of social care programmes.

Chamberlain and colleagues (2011) have described three different models of scaling up the MTFC and KEEP interventions, currently being carried out in the US and the UK. These include:

Cascading training model: The programme developers trained and supervised the staff within a new programme site (first wave); in a second wave at the new site, the programme training and direct supervision of staff was carried out by the first wave staff (thereby eliminating the direct involvement of the programme developers in staff training and supervision).

Community Development Team (CDT) model: Representatives from areas where a programme is operating meet regularly for information sharing, peer-to-peer exchanges about barriers to implementation, and support/feedback relating to problems (e.g. programme fidelity or sustainability).

Rolling cohort model: A central implementation team for MTFC was established in England and initial local authority sites implemented the programme. Subsequently, lessons learned from implementation in the first sites, were used ‘to assist in the implementation of MTFC in subsequent sites during successive yearly cohorts.’

All three of these scale-up models were devised in a partnership between the research developers and the communities in which they are being implemented. As a result, they take into account the local policy and practice needs, but also remain faithful to the components that are considered to be the key drivers of positive outcomes. Such collaboration can support both the fidelity to the original programme and its sustainability in a large scale-up of an initiative.

10. Conclusion

It is important that before selection, evidence-based programmes are explored for the best fit for the local context and clinical expertise. Following this, the decision to adopt a programme must have both policy and practice engagement. At this stage consideration should be given to how the proposed evidence-based programme could affect the organisation's processes and provider goals. Once the decision is made there will need to be a phase of preparation for ensuring systems are in place for training, supervision and fidelity, as well as for the recruitment of new staff or redeployment of current staff. During the implementation phase, in addition to the on-going support and fidelity monitoring, an evaluation should be undertaken of the new processes being introduced and staff and user views of them. Sustainability of the programme depends on a commitment to ongoing funding and continued staff training and monitoring.

The international experience of implementing four key evidence-based programmes for children and young people, highlighted in the second section of this report, underlines the importance of careful planning and an expectation that it will take considerable time and resources to embed these programmes. Innovative solutions have been found to overcome cultural differences, language barriers, and different system structures. There are examples of very successful replication of the original programme's positive outcomes in new settings. Despite this, some programme sites have found implementation and/or the replication of original success unachievable; and, in other sites programmes have been successfully implemented but found to be unsustainable when reliant on mainstream funding.

In summary, a thoughtful, planned, and well-resourced implementation is key to implementation achievement – no matter which model is followed. It is not enough to just insert an evidence-based programme into complex local children's services and expect success.

SECTION 2: Implementation lessons from specific evidence-based programmes

Four evidence-based programmes that provide interventions with young people with multiple, complex problems are described in this section. The lessons learned in implementing each of these programmes in different settings are spelled out. Each of these four programmes is currently being implemented in parts of the UK. These programmes were selected for this report to be representative of the range of evidence-based programmes that provide interventions for young people with extensive needs. Other examples could include: Parent-Child Interaction Therapy (PCIT) (Gallagher 2003), Cognitive Behaviour Therapy, and The Incredible Years (Gardner et al 2006).

Example 1: Functional Family Therapy (FFT)

Origin: FFT was developed in the USA by Dr. James Alexander (University of Utah) in 1972.

The programme

FFT is a family therapy intervention for young people (10 – 18 years) with a strong history of offending (or violent, behavioural, school and conduct problems). It focuses on family behavioural therapy held over a three month period, with between eight and 30 one-hour sessions (average 12 sessions). FFT can be delivered in a variety of settings – home, juvenile court, institution or clinic. FFT therapists come from a range of professional backgrounds (such as mental health workers, probation officers and behavioural therapists), carry a caseload of about 12 to 15 families, and are supported by a team of colleagues (usually three to eight), each with their own caseload of FFT clients.

“The main elements include engagement and motivation of the family in treatment, problem-solving and behaviour change through parent-training and communication-training, and seeking to generalise change from specific behaviours to positively influence interactions both within the family and with community agencies such as schools.” (Gordon 1995)

FFT is one of the most frequently used evidence-based programmes for families: there are over 270 programmes, treating 12,000 young people annually (FFTinc.com).

US evaluations of the programme

The first FFT efficacy study was published in 1973 (Alexander and Parsons). This was a randomised controlled trial (RCT) carried out with 86 US juvenile 'status' offenders (i.e. those who had committed acts that were illegal for their age, such as alcohol consumption). FFT was offered using therapists who were graduate students at the University of Utah and they were supervised by the programme developers. The comparison was made between FFT and three control groups (client-centred family groups; psychodynamic family treatment; no treatment). At six months follow up, there was significantly reduced status offending (53%) and improved family communication in the FFT group, but no significant reduction in criminal offending. These positive results were replicated in a further quasi-experimental efficacy study that included serious juvenile criminal offenders (Barton et al 1985) who showed a 57% decrease in criminal activity compared with a matched control group at 15-month follow up. Similarly, a trial by Gordon and colleagues (1988) showed decreased recidivism of 84% in a group of juvenile status and criminal offenders compared with a matched control group 2.5 years post recruitment.

The most recent and largest RCT of FFT was carried out with 917 young offenders (Sexton & Thomas 2010). The programme was offered by community therapists, employed by community providers in 14 counties in the US. When compared with a control group of young offenders who received standard probation services, there was no significant difference in offending a year after the intervention ended. However, there were significant differences when those young people whose therapists adhered most closely to the FFT model were compared with the control group: these findings showed a reduction in felonies (35%), violent crimes (30%) and misdemeanour recidivisms (21%).

Two published US studies of FFT with populations of substance-abusing young people have not shown significant differences between FFT and control group young people (Friedman 1989; Waldron 2001).

Implementation lessons from US studies

Programme fidelity

A high level of competence by FFT therapists in delivering the model faithfully has been shown to be critical to the success of the programme when delivered in community settings (Sexton & Thomas 2010; Barnoski 2003). Deviation from the intended model has led to higher recidivism. In response to these issues of programme fidelity and competence of

therapists, the developers of FFT have created manuals for treatment, training and supervision of the programme. Additionally, they offer a web-based application to monitor 'highly structured FFT therapist notes, as well as supervisor and client ratings of therapist competence'. There is extensive training during the initial stages of set-up, training of on-site supervisors and booster training (FFTinc.com).

Scaling up

Zazzali and colleagues (2007) report the findings of a study that focused on the roll out of FFT in a sample of 13 mental health service organizations in New York. The purpose of the study was to identify lessons from this initial implementation that could be applied in the future, to both FFT and other evidence-based programme implementation. Administrators were interviewed to gain their perspectives about adopting and implementing FFT in their organisations. Barriers to implementation raised included:

- *Information Technology*: organisational IT infrastructure and the ability of staff to use computers;
- *Referrals of clients*: difficulties in identifying a steady stream of clients of the right age group who met the selection criteria for FFT;
- *Training of FFT Clinicians*: the expense of subsequent re-training or induction of replacement staff;
- A perceived lack of fit between organizational context and characteristics of the FFT model as they understood it;
- *The 'somewhat burdensome'* documentation requirements of FFT, particularly when combined with existing clinic and/or county paperwork;
- *The expected fidelity to the model*: clinician or agency difficulty accepting key tenets of the model and/or the desire to offer additional services to complement FFT, even though this deviated from the model;
- *Differing expectations of the intervention prior to implementation*: the time and financial commitments were greater than expected;
- *Unrealistic expectations of external stakeholder groups* (e.g. the family court who controlled referrals to provider organizations) of what the model could achieve within a limited time frame; and
- *A need for cultural adaptation* to the wider social needs of their specific clients and families.

International implementation: FFT has been implemented in New Zealand, Netherlands, Norway, Sweden, Belgium and England.

Implementation in the Netherlands

Breuk and colleagues (2006) describe the implementation of FFT in a Dutch psychiatric day-treatment centre. The initial challenge was seen as addressing the difference between the then current medical approach based on diagnosing individual risk factors in both juveniles and parents, and a family approach such as FFT, which aims to reduce blame while maintaining responsibility and focusing on client and family strengths. The solution adopted was the development of trust among the FFT consultant, local family therapists, and the psychiatric directors of the treatment facilities. This alliance was created through careful development of a joint vision of the project, with a focus on creating a strong implementation partnership.

A second challenge lay in obtaining staff acceptance of the implementation of an evidence-based model into a system with a pre-existing model in use. Several strategies were used to overcome this challenge: discussions of similarities and differences between FFT and the other model; early individual training of a key supervisor to become a clinical leader and advocate of FFT; slow systematic steps to start integrating parents and other staff in treatment to transform from an individual focus to a more comprehensive family approach.

In the Dutch context some cultural adjustments had to be made to FFT; for instance because of language barriers, training was slower and the trainer needed to invest significant time becoming familiar with the team and its language. Additionally, there were concerns about common therapist approaches in the US (e.g. the therapist frequently complimenting clients) that would not work well in the Netherlands and would be considered '*superficial and artificial*'. As such a more direct approach was taken by FFT therapists in the Dutch programme. Additionally, an FFT training tape of therapy sessions with a Dutch family was developed which allowed team members and therapists to see FFT in use with a family of the culture in which it was being implemented.

Implementation in the UK

In the UK, FFT is currently being implemented in community youth offending services in Brighton. The programme is being evaluated through an RCT, the SAFE trial, being carried out by academics at the Institute of Psychiatry, Kings College London. This study aims to determine the effectiveness, cost-effectiveness and acceptability of FFT in a UK context.

Example 2. MST: Multisystemic Therapy

Origin: MST was developed in the US by academics Dr Scott Henggeler (Family Services Research Centre, University of South Carolina) and Dr Charles Borduin (University of Missouri).

The programme

Multisystemic Therapy (MST) is an intensive family and community based intervention that targets the multiple causes of serious conduct problems and offending in young people aged 12 -17. The programme aims to increase the skills of parents and caregivers and to change the behaviour of the young person. The MST therapist is on-call 24 hours a day, seven days a week and provides intensive support in homes, neighbourhoods, schools and communities, usually over a period of three to six months. The MST therapists are professionals who may come from a range of disciplines such as psychology, social work and family therapy. To allow for the multiple weekly contacts with the young person, family and community, which average two to 15 hours per week, the MST therapists hold small caseloads of four to six families.

US evaluations of the programme

Methodologically rigorous RCTs carried out in the US by the programme developers have shown MST to be significantly more successful than normal services in improving family relationships and reducing both the short and long-term rates of re-offending amongst serious young offenders (Henggeler et al 1986; Henggeler et al 1992; Henggeler et al 1993; Borduin et al 1995; and Henggeler et al 2002). Initial trials were carried out with doctoral students as therapists and the programme developers as supervisors; later trials were carried out using community practitioners and in community service organisations.

Implementation issues raised in the US evaluations

A number of the MST trials have provided evidence that fidelity to the programme leads to better results (Henggeler et al 1997). In response, the originators of MST have developed very strict treatment protocols and adoption criteria to the project. All MST programmes are licensed through MST Inc., University of South Carolina. The developers maintain rigorous training procedures and a high level of contact including weekly telephone consultations. There are MST manuals for both the organisation of the service and for supervision of the therapists. Fidelity is measured through the use of the MST Therapist Adherence Measure

(TAM), a 28-item questionnaire completed by parents at regular intervals during the intervention.

International implementation: MST has since been implemented in the UK, Australia, New Zealand, Canada, Denmark, Ireland, Netherlands, Norway, and Sweden.

Implementation in New Zealand

A benchmarking study of MST was recently undertaken in New Zealand, to determine how transferable the programme was to this different cultural context (Curtis et al 2009). This programme implementation and evaluation was publicly funded and carried out through mental health clinics with 65 young offenders. It found similar significant positive effects as the US studies relating to re-offending rates. The researchers deemed MST an intervention that was successfully transferrable to New Zealand and to a publicly funded community setting, but raised some implementation issues. Notably, although there were high participant completion rates in the programme, there was a high level of therapist and supervisor attrition. This was reported to have several causes: therapists finding it stressful to provide intensive support outside of normal working hours; extensive travel across wide geographical areas; difficulty adjusting to *'the rigorous quality assurance aspects of the program that demanded significant changes to their working routine (i.e., preparing for and attending weekly case supervision, therapy adherence, working primarily in the homes of families, ongoing and intensive outreach related to MST services amongst professionals and associated agencies'* (Curtis et al 2009).

Implementation in Canada

In a trial to implement MST in Canada (Leschied and Cunningham 2002), the researchers found no significant differences between MST and the control group in terms of re-offending. They listed possible implementation issues that they think could impact on the effectiveness of MST implemented 'for real' in a community compared with the more artificial conditions of a government-funded research study:

- Most service programmes are not overseen by supervisors with doctorates (as they were in the original efficacy trials);
- Bonuses were given to some of the original therapists in early trials, but few agencies can financially compensate therapists for achieving good outcomes;
- Agencies cannot pay participants for cooperation with MST (as happened as an incentive for data collection in the research study);

- Community programs are funded at lower levels than large-scale research studies and constantly face the prospect of budget cuts;
- Many agencies are unionised, meaning that MST demands on therapists may conflict with previously negotiated working conditions;
- Without a research component, case outcomes are not usually monitored;
- Many small agencies cannot re-allocate the critical mass of three to eight therapists needed to create an MST team; and
- Training, consultation and licensing by MST Services Inc. are extremely expensive: such costs were borne by the government during the research study but would normally need to be absorbed by local agencies.

Implementation in Norway

In Norway an RCT of MST was carried out with 100 young people with serious antisocial behaviour. The programme was run in four community provider sites with community therapists. The trial showed a decrease in internalizing and externalizing symptoms, a decrease in out of home placements and increased social competence (Ogden & Halliday-Boykins 2004). The MST programme was scaled up across Norway. Ogden and colleagues (2008) have written about the implementation issues relating to bringing MST to a Norwegian context. Key barriers and the solutions they have used include:

System level barriers and strategies

- *Barrier:* The development and implementation of MST required either new funding or a shift in funding from existing resources.
- *Strategy:* National government viewed the use of MST as sensible and economical, based on demonstrated clinical and cost effectiveness in Norway. Specialised funding and expert consultation and training were provided by central government for county-level agencies to deliver MST.
- *Barrier:* Changing the 'norms' of clinical practice.
- *Strategy:* MST Norway ensured wide media and press coverage about the programme, utilising expert opinion, researchers, politicians and satisfied families. Additionally it took care to generate local ownership through emphasizing prestige, convenience and satisfaction to promote local acceptance. The team also worked closely with criminal justice stakeholders (police, educators, community leaders).

- *Barrier:* Two Norwegian counties are extremely large and sparsely populated with isolated villages.
- *Strategy:* Additional teams were added and maximum time travel of therapists was extended from 1.5 to 2.5 hrs, with the location of an MST team between two of the largest towns in the county. This assured both appropriateness of referrals and consumer access to family-based services.
- *Barrier:* One system level barrier that Norwegian stakeholders have not been able to overcome is the lack of valid and reliable screening methods for determining a young person's risk level.
- *Current strategy:* an MST supervisor evaluates the referral and decides if the youth is appropriate for diversion into MST. MST supervisors usually take a liberal stance, using a limited number of exclusion criteria.

Practitioner level barriers and strategies

- *Barrier:* Language and cultural barriers.
- *Strategy:* Initially MST Norway translated the MST manual into Norwegian. More recently, the MST supervision and organizational protocols have also been translated and modified to specify the particular roles of Norwegian stakeholders.
- *Barrier:* When an evidence-based innovation is proposed, practitioners often cite cultural differences as a reason for deciding against adopting it. In Norway, 8% of the population are immigrants, and there is also a native subpopulation. The Sámi retain their own language and culture, with strong traditions in fishing, hunting, and reindeer herding.
- *Strategy:* Norwegian MST therapists reported few barriers to engaging ethnic minority families in MST treatment. They considered the nature of the treatment model as contributing to the adaptation to each family's cultural needs. However only 6% of MST cases were immigrant or Sámi families.
- *Barrier:* The shorter workday in Norway, combined with the lengthier travel distance has made the traditional pattern of MST delivery difficult in Norway.
- *Strategy:* MST Norway prescribed a lower caseload of three to four families per therapist (compared with four to six in the US) and negotiated with Norwegian labour unions to compensate MST therapists for working longer or anti-social hours. These changes increased the per client cost of MST in Norway.

- *Barrier:* The first generation of Norwegian MST supervisors were recruited on the basis of their managerial ability and some lacked the clinical skills needed to support MST implementation. A more general lack of necessary clinical training is also a problem throughout MST Norway.
- *Strategy:* MST Norway now uses more clinically oriented skills assessments to screen applicants. Additionally they have found that some therapist skill deficits can be compensated for through MST training and clinician development protocols.

Implementation in Sweden

A Swedish RCT of MST with 156 young people with conduct disorder found no significant differences in outcomes between the MST and control groups (Sundell et al 2008). The MST therapists were found to have lower fidelity scores than in other trials of the programme, despite following the rigorous training and supervision. The authors queried whether practical issues may have influenced the fidelity of the intervention: the use of language interpreters (nearly half the sample were not of Swedish origin); the education level of the therapist (bachelors degree rather than masters degree level in US); the poor ethnic match between therapists and families. Contextual factors may also have influenced implementation fidelity: the lack of a national initiative behind MST (as there had been in Norway); the low rates of residential care for the control group in this study, which made them less prone to risk than control groups in the US and Norway. Overall the authors thought *'these results highlight the importance of measuring and monitoring fidelity during transportation [of an evidence-based programme to a new setting], dissemination, and evaluation efforts.'*

Implementation in England

A recent RCT of the MST programme in England was undertaken by Butler and colleagues (2011) at University College London. This trial was carried out with an ethnically diverse sample of 108 families who were randomized to either MST or usual supportive Youth Offending Team services. Young people were eligible if they were on a court referral order for treatment, a supervision order of at least three months' duration, or, following imprisonment, on licence in the community for at least six months. Participants were predominantly male, half were from Black or minority ethnic groups, and on average they had committed more than two offences in the previous year (more than half of their convictions were for violent offences). Results showed that, compared with the control group, at 18 month follow up MST provided significantly reduced non-violent offending, youth-reported delinquency and parental reports of aggressive and delinquent behaviours.

The results suggest that there is scope for an MST intervention in addition to the existing multi-agency services on offer for young offenders in the UK. However, the researchers stressed the need for further examination of its cost-effectiveness, to determine that the costs of delivering the programme are justified by the results achieved.

Alongside this UK trial, qualitative interviews were carried out with both parents and young people assigned to MST, approximately three months after the intervention finished (Tighe et al 2012). These showed that the intervention was valued and acceptable to families in the UK, and that they credited it with improvements in offending and relationships between the parent and young person. The interviews found that in this study population there was a sense that the intervention had come to an end too abruptly or too soon for some. The researchers suggested that future implementation of MST might consider a longer intervention in certain cases, or some follow up sessions after the main intervention is completed (Tighe et al 2012).

Example 3. Multidimensional Treatment Foster Care (MTFC)

Origin: The MTFC model was established by Patricia Chamberlain and colleagues at the Oregon Social Learning Centre (OSLC) in 1983.

The programme:

MTFC for adolescents is an intensive foster care programme for young people who have engaged in serious, chronic anti-social behaviour, youth offending and conduct problems. MTFC is based on a social learning model, with specific techniques derived from behavioural therapy. The programme provides young people with a 'wrap-around' service of support which includes placement for six to nine months with specially trained foster parents, an individually tailored structured programme, weekly sessions with a behavioural therapist, support from an educational therapist and family therapy with the young person's birth family. *'Four key elements of treatment are targeted during placement and aftercare: (1) providing youth with a consistent reinforcing environment where he or she is mentored and encouraged to develop academic and positive living skills; (2) providing daily structure with clear expectations and limits, with well-specified consequences delivered in a teaching-oriented manner; (3) providing close supervision of youth's whereabouts; and (4) helping youth to avoid deviant peer associations while providing them with the support and assistance needed to establish pro-social peer relationships.'* (mtfc.com). The foster carers, who only have one foster child at a time, provide a daily report telephone check-in with the MTFC supervisor, who holds a maximum caseload of 10 young people. The aim of the programme is to return the young person to the birth family or to a long term placement. There are three versions of the programme: MTFC-A for adolescents aged 12-17; MTFC-C for children aged 7-11 years; and MTFC-P for younger children aged 3-6 years. This report discusses the findings for effectiveness and implementation for the adolescent version of MTFC.

US Evaluations of MTFC

Three RCTs testing the effectiveness of MTFC have been carried out by the programme developers in the US state of Oregon: one with 79 male chronic and serious young offenders and two with female chronic young offenders – one with 81 young women and the other with 85. (Chamberlain and Reid 1998; Chamberlain et al 2007; Kerr et al 2009) In each, the comparison group has been young people receiving the standard care of a placement in a residential care facility, and the MTFC intervention was carried out by community

practitioners who were managed by the programme developers. These trials found significant positive findings for those in MTFC: for young men there was a reduction in criminal charges and at two year follow up a reduction in violent recidivism and decreased delinquency (Eddy et al 2004). For young women in the MTFC group there were significantly reductions in the number of days in custody and decreased criminal charges at 1 and 2 years follow up, and in the second trial, a reduction in pregnancies.

Implementation issues raised in the US evaluations

The RCTs carried out in the US have all been amongst populations of primarily white young people, so they provide little evidence of effectiveness or implementation issues relating to other ethnic groups.

In an example of implementing MTFC in a community service setting, the Families First agency found that the greatest challenges lay around addressing cultural needs, finding funding to support the programme, and keeping the interest of an active pool of available foster parents while they were waiting for appropriate referrals (Foster Family-based Treatment Association 2008).

Wider implementation of MTFC programmes (both in the US and internationally) is supported by TFC Consultants, Inc., who ensure fidelity to the model through training, consultation and technical assistance. Currently the developers of MTFC are engaged in a large-scale RCT across 40 counties in the US state of California which aims *'to add to the understanding of "what it takes" to engage, motivate, and support counties to make the decision to adopt, conduct, and sustain a research based practice model.'* (Chamberlain et al 2008). This involves a comparison of two different methods of implementing MTFC in community settings: the standard assistance package from TFC Consultants; and the standard package augmented by a community development team approach, where there is peer-to-peer support between agencies implementing the programme.

International implementation: MTFC is being implemented in New Zealand, Canada, Sweden, Norway, Denmark, the Netherlands, Ireland, England and Scotland.

Implementation in Sweden

The first RCT of MTFC outside the USA has recently been conducted in Sweden (Westermarck et al 2011). The study included 35 young people with severe behavioural problems who were randomized to MTFC or treatment as usual groups. The sample included both young men and women, of whom a quarter were from an immigrant background. MTFC was provided by a newly formed community provider, Familjeforum AB.

At two-year follow up, both groups presented reduced symptoms in more or less all outcome variables. However, when compared to the treatment as usual group, MTFC young people showed a statistically greater symptom reduction relating to externalizing symptoms, psychiatric distress and depression. In terms of implementation of MTFC, nearly all the young people completed the programme (11% attrition) and foster carers were very positive about the MTFC manual – *‘The availability of easily manageable “treatment tools” and 24 hour a day support, were two important reasons for the satisfaction of the families.’* (Khyle Westermarck et al 2007). Despite the overall positive rating of MTFC by foster carers, some were less engaged with the programme, finding the ‘professionalisation’ of the foster family uncomfortable and counter-intuitive.

Implementation in New Zealand

MTFC has been implemented through one community provider in New Zealand since 2009. In the first 18 months of implementation, 75% of participant young people were able to return to live in the community (with birth family, permanent foster family or independently). The programme has recently secured research funds to evaluate the effectiveness of MTFC in New Zealand via the Department of Internal Affairs (Youth Horizons 2011). The majority of participants come from the indigenous Maori culture, and the programme has been implemented with great attention to cultural sensitivity (Youth Horizons 2009). The programme has been adapted with the engagement and endorsement of Maori elders to make it more culturally appropriate; for instance, the family therapy component has been broadened to include extended family. In other ways it has remained faithful to the MTFC programme, with support from the OSLC team, and has recently achieved accreditation in the model. The programme developers (TFC consultants) attribute implementation success in New Zealand to:

- steadfast support from the local organisation’s leadership (ensuring the right tone amongst staff and adequate resourcing);
- a programme supervisor who was dedicated to the fidelity of the treatment model;
- a mutual trust between the local organization and the programme developers, *‘that allowed for open and honest communication, a willingness to reconsider established practices and a sense of common purpose’*;
- a group of very experienced foster carers, with long-term association with the local organisation;
- the *‘involvement, approval and support of Maori leadership’* (Youth Horizons 2011).

Implementation in England

The English programme is the largest MTFC programme outside the USA and the only national initiative in Europe. MTFCE is operating in 18 sites across England, with central funding provided by the Department for Education. The programme has been independently evaluated by the Universities of York and Manchester (Biehal et al 2012), using a small-scale RCT embedded into a larger non-randomised comparison study (34 young people aged 11 – 16 within RCT; 185 in non-randomised). This study found that the sample of young people with serious antisocial behaviour problems, for whom the programme is intended, had a significant reduction in behaviour problems and an increase in overall social adjustment. Those without anti-social behaviour problems fared better in usual care than in MTFC.

There have been a number of published lessons from the implementation of MTFC in England. Roberts (2007), who directs the English national implementation team, suggested that:

- The implementation of the programme was delayed in situations where local authorities experienced '*changes in senior management personnel, structural reorganisation, political emphasis, or financial imperatives*'; and
- They experienced additional challenges once local programmes got underway. These included: '*changing financial priorities and concerns about budgets in the short term, the withdrawal of backing from hard pressed health partners, difficulties in recruiting and retaining appropriate foster carers, and lack of appropriate referrals of young people into the programme*'.

Additional lessons included the need for strategic long-term planning if a new programme like MTFC is to be embedded into standard services. Utilising multi-agency partnerships and making sure that the programme is part of local strategies (e.g. the child and adolescent mental health strategy) are necessary steps to help plan for sustainability.

Kirton and Thomas (2011) reported findings from a qualitative study in one English local authority that was implementing MTFC. Thirty-one team members (foster carers, therapists, supervisors, management team workers) who had participated in the delivery of the model were interviewed. They reported that the perceived main strengths of implementing the OSLC model in England were the 'common language' that was given to all the members of the team and that it provided clear expectations for participating young people. The main

perceived limitations of the model were that some aspects were 'too American', that it would work for only some young people, and that it might not have longer-term benefits. They report that adaptations to the model, *'usually aimed at securing young people's engagement and motivation did not seem to have compromised the workings of the model in any significant way'*.

The annual reports from the MFTCE Project report many key messages for implementation. The 2010 Annual report highlights, for instance:

- the differing needs of boys and girls who are being referred to the programme, which leads them to suggest a strategy of encouraging earlier referrals for girls;
- the benefits of timely, quality pre-placement assessments and taking a developmental perspective when positioning the young person for skills acquisition;
- early planning for post MTFC placements was considered to be *'vitaly important to ensure timely decisions are made about children's futures'*;
- the strategic and operational linking with existing services – health, education, social work – is key to effective working.

This national programme team suggests that the greatest challenges facing the programme are: sustaining MTFC programmes; post MTFC placement planning; and recruitment and retention of foster carers.

'It remains clear that evidence-based programmes such as MTFCE are not self-sustaining and, without continuing support, natural model drift would occur with the resulting reduction of model adherence and outcomes. National programmes in particular, where coherence of approach and shared learning are important aims, depend on having a system in place for monitoring implementation progress, and access to training and ongoing support in the implementation of the main tools of the programme'. (MTFCE Annual Report 2010)

Example 4. KEEP: Keeping Foster and Kinship Parents Supported and Trained

Origin: The KEEP programme was developed by Patricia Chamberlain and colleagues at the Oregon Social Learning Centre (OSLC) in the USA.

The programme: A 16-week structured course of training, supervision and support in behaviour management methods for groups of foster or kinship carers of children aged 5 -12 years. The training is conducted by a trained facilitator and co-facilitator team. There is a manual to support implementation. Content of the course includes: *'increasing use of positive reinforcement, consistent use of non-harsh discipline methods such as brief time-outs or privilege removal over short time spans (e.g. no playing video games for one hour, no bicycle riding until after dinner), and teaching foster parents the importance of close monitoring of the youngster's whereabouts and peer associations. In addition, strategies for avoiding power struggles, managing peer relationships, and improving success at school were also included.'* (Price 2008) The course uses films and role play during the sessions. The programme is a less intensive version of the Multi-Treatment Foster Care (MTFC) intervention, following its key principles and theory, but without the 'whole team around the child' approach. Programme developers have provided the following inputs: on-site training of staff (five days); weekly phone supervision for one year; and 18 months of consultation.

US evaluations of the programme

The programme was originally evaluated via an RCT with 700 mainstream foster and kinship carers of 5-12 year olds (1999-2004). It was carried out with an ethnically diverse sample: 34% of the foster carers were kinship carers, 66% non-relative carers. The evaluation showed that being in the KEEP intervention nearly doubled the likelihood of achieving a positive placement change (reunification with biological parents, placement with relative, or adoption) and mitigated the negative effect of a history of multiple placements in foster care. (Price et al 2008). These results were measured 6.5 months after baseline, so were a short term follow-up; no long term follow-up was carried out. The study also showed a significant reduction in behaviour problems and an increase in foster carer use of behavioural management strategies. Families who reported a greater number of baseline child behaviour problems benefited more from intervention than those reporting fewer problems (Chamberlain et al 2008). Further evaluation in the USA of a KEEP pilot programme for specialized foster placements for children with behavioural problems, found a positive long term reduction in behavioural problems (Leathers 2011).

Implementation issues raised in US evaluation

The initial evaluation of KEEP in the USA raised a number of issues concerning implementation. Nearly 40% of those carers offered the training declined to participate. The carers taking part in the training missed 20% of the weekly group training sessions and had to have individual follow-up home visits. Process evaluation measured caregivers' engagement with the KEEP group intervention (as rated by trainers – a scale which included level of participation in the group, perceived satisfaction with the group, openness to information presented, and completed homework tasks). This found that for those caregivers who had higher engagement in group activities, there was greater benefit of the intervention for children at higher risk. Foster carer negative mood was predictive of increased risk of placement disruption. The authors suggest that future work might focus on ways of increasing group engagement as a means of maximizing the positive impact of the intervention (DeGarmo et al 2010). This evaluation also found that the group processes and engagement were potentially most effective amongst Hispanic foster carers.

As part of this study, the developers tested a cascading method of training the trainers of the foster carers, where the developers trained and closely supervised one set of trainers, who then went on to carefully train and closely supervise another cohort (Chamberlain et al 2008b). They found that outcomes of the KEEP programme were similarly positive when the developers of the programme were not involved in the training and supervision of the trainers.

International implementation: KEEP has since been implemented in England and Sweden.

Implementation in Sweden

The KEEP programme in Sweden is a collaboration between the INOM Familjeforum and the originators of the programme, the Oregon Social Learning Centre. Training of the staff team by personnel from OSLC took place in late 2010 and implementation of the training of carer groups is on-going. KEEP is offered to any foster carers of children in the 5 – 12 age range: the families involved are not pre-selected. Each session is filmed to monitor fidelity.

Implementation of the programme has meant that training materials have had to be translated into Swedish and culturally adapted. Additionally the films used in the group sessions have required a voice over and conversion so they can be streamed.

Implementation in England

In England, implementation began in a two-year pilot in five local authority areas (2009-2011). The training for the English national programme was provided in September 2009 by the original Oregon team who devised it. Supervision was provided by staff at OSLC via telephone consultation. Fidelity monitoring and audit data has been collected. This has included information about the carers, the children in their care, attendance and engagement with the groups, carer ratings of the groups and measures of child behaviours. The Annual Project Report (2010) states that *'The KEEP groups have been enormously popular with carers and the audit results also demonstrate clear overall improvements in scores on the Parenting Scale, SDQ, and PDR measures with corresponding reported improvements in child behaviour difficulties, and carer stress.'*

Implementation issues in the English sites

One of the original five sites dropped out after delivering their first group. Eight groups made up of 59 parents had been convened by the end of 2010: only two foster carers dropped out during the process and across the groups they achieved an average attendance of 88% during the 16 weeks of the programme. The highest number of 'make-up sessions' in carers homes (for those who missed the group session) were in week three of the programme, but attendance picked up again after this dip. The team in England considered that this underlined the importance of the 'make-up sessions' for keeping the intervention group on track. The monitoring and audit data reported from 2010 suggests that the implementation of the KEEP intervention in England appears to have been successful (with significant improvements in child behaviours and parenting styles pre/post intervention and very high satisfaction and learning scores from the carers).

Appendix A: Criteria for Implementation: a checklist

There are locally defined needs Yes No Don't know

These needs include:

The proposed method/programme can meet these needs Yes No Don't know

The proposed method/programme includes:

The method/programme is:

• relevant Yes No Don't know

• better than current methods Yes No Don't know

• effective (evidence-based) Yes No Don't know

• cost-efficient Yes No Don't know

• consistent with prevailing values and attitudes Yes No Don't know

• easy to use Yes No Don't know

• possible to test on a small scale Yes No Don't know

• possible to adapt to local conditions without altering its central components. Yes No Don't know

Any risks there may be with the method can be dealt with. Yes No Don't know

The results of the method can be quickly observed. Yes No Don't know

Knowledge about the method can be generalised to other areas. Yes No Don't know

The users have been involved at an early stage. Yes No Don't know

Everyone involved is aware of the method and has access to continuous support in their daily work. Yes No Don't know

There are resources in the form of time, money and staff. Yes No Don't know

There are sufficient resources to provide training in the method for existing and new staff. Yes No Don't know

There is an adequate and long-term budget. Yes No Don't know

There are systems for monitoring and feedback. Yes No Don't know

There is someone who will be responsible for supporting staff to maintain fidelity to the agreed method. Yes No Don't know

There are plans to hand over to the users for everyday use. Yes No Don't know

Reproduced from: Guldbrandsson 2008, with minor adaptations by the authors of this report.

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