Research Brief

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The Care Placements Evaluation (CaPE) Evaluation of Multidimensional Treatment Foster Care for Adolescents (MTFC-A)

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Introduction

This study evaluated the effectiveness of Multidimensional Treatment Foster Care for Adolescents (MTFC-A), an innovative, evidence-based form of fostering for looked after children (age 11-16 years) with complex needs. MTFC-A was implemented by 18 English local authorities, using pump-priming money from the former Department for Children, Schools and Families and supported by an implementation team at the Institute of Psychiatry. This is only the second independent study of MTFC and is the first to evaluate its use with older children in the care system.[i] It investigated whether placement in MTFC-A results in improved outcomes, relative to the usual care placements, and which children are most likely to benefit from it. The Care Placements Evaluation (CaPE) studied 219 young people (including 63% of those placed nationally in the MTFC-A project between October 2005 and December 2009).

Key findings

- Most of the young people had experienced considerable placement instability, nearly all had experienced abuse or neglect and two-thirds had mental health difficulties. Over half had statements of special educational needs and 36% had recently committed a recorded offence.
- For the sample as a whole, placement in MTFC-A showed no statistically significant benefit over the usual care placements. This was true for all the outcomes studied including overall social adjustment, education outcomes and offending.
- In a subgroup of the sample with serious antisocial behaviour problems, MTFC-A showed improved reduction in these behaviour problems over usual care and also in overall social adjustment.
- The young people who were not anti-social did significantly better if they received a usual care placement.
- Half the young people remained in their MTFC-A placements at follow-up, in some cases due to the difficulty of finding suitable follow-on placements for them. For over half those who had left by this point, the placement ending was unplanned.
- Young people's engagement was a key issue. Some were reluctant to 'buy in' to the structured nature of the programme. However, development of strong relationships with foster carers facilitated engagement.
- MTFC-A foster carers found the displacement of discipline on to a 'points and levels' system to be helpful, and valued the training and intensive support provided by the MTFC-A teams

What is MTFC?

MTFC was developed in the USA in the 1980s as a multi-modal intervention, based on social learning theory, for children with challenging behaviour. The programme developers at the Oregon Social Learning Centre have positively evaluated its effectiveness with a variety of groups of children and young people.

MTFC is a highly structured behavioural programme, providing wraparound multi-professional support and including daily communication between carers, the team and school. The key elements of the intervention are: the provision of a consistent reinforcing environment in which young people are mentored and encouraged; provision of clearly specified boundaries to behaviour and specified consequences that can be delivered in a teaching-oriented manner; close supervision of young people's activities and whereabouts; diversion from anti-social peers and help to develop positive social skills that will help young people form relationships with a positive peer group.[ii]

MTFC-A provides older children with a short-term foster placement, usually intended to last around a year, followed by a short period of aftercare to support the transition to a new placement or return home. Individual treatment plans are developed and regularly reviewed. Behaviour is closely monitored and positive behaviours are reinforced using a system of points and levels. Foster care is provided by specially-trained foster carers who are supported and closely supervised by a clinical team, including a programme supervisor to co-ordinate the intervention, an individual therapist and a skills worker to work directly with the child, a family therapist to work with parents or alternative follow-on carers and a foster carer support worker, with consultancy provided by a child and adolescent psychiatrist. In England, MTFC teams also include a programme manager and an education worker.

Research design and methods

Children were included in the study if they met the eligibility criteria for MTFC-A, that is, they were:

- 11-16 years old
- had complex or severe emotional difficulties and/or challenging behaviour *and*
- were in a care placement which was unstable, at risk of breakdown or not meeting their needs, or were at risk of custody orsecure care. or becoming looked after long-term.

A randomised controlled trial (RCT) was designed, in which eligible young people would be allocated randomly to either MTFC-A or 'usual care' (one of the usual range of care placements, chosen by their social workers). Anticipating potential difficulties in using randomisation in all centres, the RCT was supplemented by a comparative study of outcomes for an observational sample of young people placed either in MTFC or in other placements by local authorities without randomisation.

In the event, six of the 18 participating local authorities participated in the random allocation procedure. Thirty-four young people (20 MTFC-A and 14 Usual Care) were included in the RCT study. (The RCT was originally designed to include significantly more [i.e.130] young people). In addition, 185 young people were studied in the non-randomised element of the study. This gave a total sample in CaPE of 219 (106 in the MTFC-A sample and 113 in the Usual Care sample). This total CaPE sample represented 63 per cent of the total placements made by the MTFC-A programme during the study period.

The young people were assessed at three timepoints: at baseline, three months into the index placement (MTFC-A or Usual Care) and one year post-baseline. The assessment used a structured method of integrating information from questionnaires to social workers, carers and MTFC-A teams and from education and health reports available on social work files.

The primary outcome measure was a standard measure of overall adaptive functioning across all areas of life (Children's Global Assessment Scale, C-GAS) and the Health of the Nation Outcome Scales for Children and Adolescents, (HoNOSCA).Both were measured 'blind' (i.e. without knowledge of the interventions the young people had received). Standard mental health measures of behavior and social functioning ('Child Behaviour Checklist, CBCL; Strengths and Difficulties Questionnaire, SDQ) were also used and data were collected on school attendance, offending and placement disruption. Qualitative data were also collected during interviews with young people and carers.

The analysis of the RCT part of the study was on an 'intention-to-treat' basis, with the groups being compared in relation to the placements to which they were originally assigned. A further analysis compared outcomes for young people who were placed in MTFC-A with those for others in alternative placements. While the RCT showed very good baseline matching between the groups, conclusions from the RCT analysis were weakened by the overall small sample size and made more difficult to interpret by the fact that there was a relatively high proportion of 'cross-overs' between the two arms of the trial. (Eight young people randomised to MTFC_A were placed in usual care placements while one child randomised to usual care actually received MTFC-A). Analysis of the non-randomised sample was made more difficult by the fact that some statistically significant differences between the groups were found at baseline assessment. These baseline differences were adjusted for using a 'propensity score' method to reduce systematic bias. All analyses were adjusted for any effect of key baseline variables.

No previous studies of MTFC have included qualitative interviews with young people. A thematic analysis was undertaken of 148 telephone interviews with young people at baseline and 175 face-to-face interviews at follow-up, 115 telephone interviews with carers and responses to the open-ended questions included in all postal questionnaires. In addition, the reasons why some young people did well on the MTFC-A programme while others did not appear to benefit greatly were explored though case study analysis. A purposive sample of 20 young people was selected to include young people with varying outcomes and degrees of engagement with the MTFC-A programme, and all qualitative and quantitative data on this sub-sample were analysed.

Delivering the MTFC model

Just one young person was placed in each MTFC-A placement, as required by the programme. The MTFC-A foster carers were for the most part appreciative of the training and intensive support they received, although some felt that no training could fully prepare them for the reality of caring for very challenging young people. Many were new to fostering, having been attracted to this particular way of working.

The sample at baseline

The young people in the study were aged between 11 and 17. Fifty-four percent were male and 46% were female.

The sample represented a particularly vulnerable and challenging group, nearly all of whom had experienced abuse or neglect. Most came from difficult family backgrounds in which domestic violence or substance misuse were common. The majority had experienced considerable placement instability, including failed attempts at reunification with their birth families, with an average of 2.4 placements in the year prior to the study.

Scores on measures of mental health (the SDQ and CBCL) indicated that at least two-thirds of the sample had clinically significant mental health difficulties, with externalising (i.e. behavioural) problems particularly common. Many suffered from anxiety, depression, social and attention problems and half of those for whom these data were available had symptoms consistent with a clinical level of Post Traumatic Stress Disorder (PTSD). Many had educational problems too: over half had statements of special educational needs. Only 45% were in mainstream education and 29% had recently truanted. There was also a high rate of recorded offending, as 36% had been charged or convicted in the six months prior to the baseline period (i.e. prior to any move to a placement in MTFC-A or elsewhere).

At baseline, 53 per cent were living in residential placements and 41 per cent were in foster care. Nearly one-fifth were living in out-of-authority placements. Just four per cent were with parents, whereas samples of adolescents in the original US studies were mostly living at home at baseline.

Within the observational sample, there were some statistically significant differences between the MTFC-A group and the comparison group. The MTFC-A group were younger than the comparison group (with mean ages of 12.3 years and 14 years respectively). A few local authorities placed younger children in MTFC-A than originally intended by the national programme. The MTFC-A group was also less likely to be living in a residential placement at baseline (35 per cent) than the comparison group (61 per cent). The MTFC-A group in the observational sample were also more likely to have experienced physical abuse, to have clinically significant mental health difficulties and scores indicating impaired social functioning on the C-GAS. The extent of these differences between the two groups was reduced in the analysis by the use of propensity scores to ‘trim’ the sample and exclude young people who had a very low probability of being in one or other arm of the study. The effects of remaining differences on outcomes were taken into account in the multivariate analysis.

Where were the MTFC-A group living at follow-up?

Around half of the MTFC-A group were still in their MTFC-A placements at one-year follow-up, which limited the study’s ability to assess post-placement outcomes. Placement disruptions were known to account for over half of the placement endings in both the MTFC-A and comparison groups.

Unlike samples in the Oregon studies of adolescents, it was not safe or desirable for most of the young people to return to their families so only 9% of the MTFC-A group moved on to parents or relatives. Among those who left MTFC-A, 25% moved to other foster placements and 22% moved to local children’s homes, in some cases because foster placements could not be found for them. A further 29%, typically those whose MTFC-A placements had disrupted, moved to out-of-authority residential placements, and a few older young people made a transition to semi-independent accommodation. In a small number of cases

MTFC-A placements were converted to ‘regular’ foster placements and the young people remained with the same carers.

Results: the effectiveness of MTFC-A

General functioning

At one-year follow-up of both the randomised and non-randomised cohorts we found no statistically significant difference between MTFC-A and usual care groups in overall adaptive outcome. In the MTFC-A group, those with the more severe difficulties improved significantly more in terms of social adjustment than did their counterparts in the comparison group. Those with less severe difficulties did significantly worse.

Since MTFC-A was originally designed to help young people with difficult behaviour we explored our a-priori hypothesis that young people with particularly disruptive or anti-social behaviour (as measured on the HoNOSCA scale) might be more likely to benefit from MTFC-A than others. This analysis showed that young people assessed as highly antisocial and disruptive at baseline were less so at follow-up if they had received MTFC-A, and they also improved significantly more than their counterparts in usual placements. By contrast, those who were not anti-social did significantly better in usual placements than in MTFC-A.

There was no evidence that MTFC-A reduced placement breakdowns compared to usual care placements. Those who had left MTFC-A (over half of whom had left due to a placement disruption), were doing significantly worse at follow-up than those who were still in it (in terms of their overall adaptive functioning measured by C-GAS) This was not related to length of time in placement. Subsequent analysis that allowed for planned and disrupted endings of placements suggested that antisocial young people showed better behavioural improvement in MTFC-A even when these factors were taken into account.

Participation in education

There was a reduction in the proportion in mainstream education for both groups, largely due to a move from mainstream to special education for a number of the young people. There was no evidence that MTFC-A improved engagement in education, despite the intensive educational support provided by the MTFC-A teams. In the three months prior to follow-up, around one-third of the young people of school age within each group truanted either occasionally or frequently. There was no statistically significant effect for MTFC-A once age, time in placement and attendance at baseline were taken into account. The main predictors of good attendance at follow-up were remaining in the MTFC-A or usual care placement and good attendance at baseline.

MTFC-A teams sometimes struggled to gain the support the young people required from the education services, for example in finding new school placements. Moving to an MTFC-A placement sometimes necessitated a move to a new school, but co-ordinating placement and school moves could be difficult.

Recorded offending

When relevant baseline variables were taken into account, there was no statistically significant difference in rates of recorded offending between the MTFC-A and Usual Care groups. Around one-fifth of the young people in each group were charged with an offence in the six months prior to follow-up. The rate of recorded offending was lower for those who remained in their MTFC-A placements for three months or more compared to those whose MTFC-A placements disrupted by this point. There was a reduction in offending for those in MTFC-A who had offended pre-baseline.

As with education, there was evidence that the effectiveness of MTFC-A was sometimes limited by problems in joined up working. Some placements ended as a result of sentencing decisions, when young people were remanded or sentenced to secure care, effectively ending the MTFC-A placement. Such sentences reversed the programme's attempts to divert young people from anti-social peers. In other cases the lack of supervision in follow-on placements may have played a part. Some of the MTFC-A group committed offences after they left MTFC_A after moving to new environments in which less supervision was provided.

In what circumstances was MTFC-A more effective?

Young people with anti-social behaviour tended to do better in MTFC-A than in alternative placements (as above). Qualitative evidence from interviews and questionnaires indicated that engagement was a key issue. MTFC-A tended to work better where young people were willing to 'buy in' to the highly structured nature of the programme. Some did so with great enthusiasm, some more grudgingly and others not at all. Whether or not the environment to which the young people moved after they left MTFC-A was one that would reinforce any positive changes made, allow them to dissipate or actively reinforce behavioural problems was also important.

These conditions could be undermined by difficulties in finding suitable follow-on placements for the young people and by parents undermining the programme's efforts. Such issues are common to foster care in general, as was another important ingredient of more successful cases that emerged from the qualitative evidence, the development of a positive relationship between the young person and foster carer. This appeared to enhance the willingness of some of the more reluctant young people to work with the programme and so facilitated the delivery of the more structured aspects of the model.

Wider research on foster care also indicates that the ability of foster carers to persist in caring for very challenging children can increase the chance of successful placement. The MTFC-A foster carers found the way in which the MTFC-A points and levels system displaced overall control onto the team very helpful, as this made discipline less of a personal battle. Although we cannot be sure of the precise effects of this support, it may have helped to maintain the positive nature of relationships, as some foster carers suggested.

Conclusions

This study was the first to test the effectiveness of MTFC with older children and adolescents in the English care system. It used a global measure of general social functioning together with a range of secondary measures to assess a variety of potential benefits.

There was no significant overall additional benefit of MTFC-A for these young people compared to being in a usual care placement. This was true for all the key outcomes studied including overall adjustment, education outcomes and offending. However there was evidence that those most impaired with antisocial behaviour improve relatively more in MTFC-A than in usual care. In this, our findings were consistent with studies of MTFC with young offenders in the USA. However those who did not display antisocial behaviour appeared to do better in non-MTFC placements. We were unable to fully test the effectiveness of MTFC-A once young people had left their foster placements because half of them were still in placement at follow-up. (The placements were planned to be for a year, so many young people had not reached the graduation before the study's one-year follow-up.)

What accounts for the difference between these findings and the more striking intervention effects in studies of MTFC conducted in the USA? The US studies were all undertaken by the programme developers. The extension of treatment effects outside the centre of origin of an intervention is notoriously difficult and effect sizes generally tend to reduce on replication. Problems in some areas with fidelity to the MTFC model may also have played a part. Treatment fidelity is likely to be reduced for any intervention once it is rolled out into new contexts not controlled by the programme developers.

It is also important to take account of differences in the populations studied and in social and service contexts. In particular, the US studies have mainly focused either on young offenders or on younger children in the care system. As we have seen there was evidence that young people with behaviour difficulties did benefit from MTFC-A. Unlike in the American studies, very few of the young people in MTFC-A were expected to return home, but it was often hard to find suitable follow-on placements for them. Also, we do not know how the quality of the usual care placements in England compares to that in the USA, and this too is likely to have an impact on the relative benefit brought by MTFC. It is therefore essential to test the effectiveness of evidence-based programes such as MTFC with the new groups of young people at which it is targeted and in the different national and service contexts in which they are implemented.

Implications for policy and practice

From this evidence the general use of MTFC in the UK care system as an alternative to normally available care placements shows no significant benefit in relation to overall outcome, engagement in education or offending rates. However, while they are in the placement, MTFC-A does improve the behaviour of young people with the highest levels of anti-social behaviour better than alternative placements. We cannot tell whether it might have a longer-term benefit for this group as half of the MTFC-A group were still in their foster placements at follow-up and many of those who had left by this point had done so because their placements had disrupted. As it brought no additional benefit to young people who were not anti-social (and indeed they did better in alternative placements), it is probably best to target the intervention on those who display anti-social or disruptive behaviour.

The poorer outcomes for young people who had left their MTFC-A placements, compared to those who remained in them at follow-up, is consistent with much previous literature in indicating that what happens

when the placement ends is likely to be critical. Although attention to follow-up is an integral part of the MTFC model, the work of birth family therapists with follow-on carers may be less effective in a context where some young people may move on to children's homes rather than to family settings, due to a lack of available foster placements.

For looked after young people with complex needs, for whom a return home is not the plan, 'containment' over a much longer period may be needed. An urgent question is whether the behavioural techniques of MTFC can be taught to 'ordinary' foster carers experiencing difficulties in containing the behaviour of older children and adolescents. If this was so, the MTFC-A teams might perhaps act as mentors for other carers and in this way the benefits of the approach might reach many more young people.

The implication may be that the aim should be to extend placements over a longer period. If this is so, programme costs would have to be kept down. Training young people's existing foster carers in elements of the MTFC programme, as in the MTFC KEEP initiative currently being implemented in England with younger children, would therefore seem a positive way forward for older young people in foster placements who have challenging behaviour. This would have the aim of stabilising an existing placement, preventing the disruption of carer-child relationships, reducing costs, and avoiding the problems of finding new placements.

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[i] Biehal, N., Ellison, S. and Sinclair, I. 'Intensive fostering: an independent evaluation of MTFC in an English setting', *Children and Youth Services Review* 33 pp.2043-2049 and Biehal, N. Ellison, S, Sinclair, I., Randerson, C., Richards, A., Mallon, S., Kay, C., Green, J., Bonin, E. and Beecham, J. *Report on the Intensive Fostering Pilot Programme* London: Youth Justice Board.

[ii] Chamberlain, P. (2003) 'The Oregon multidimensional treatment foster care model: features, outcomes and progress in dissemination', *Cognitive and Behavioural Practice*, 10, 10.

Additional Information

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This research report was commissioned before the new UK Government took office on 11 May 2010. As a result the content may not reflect current Government policy and may make reference to the Department for Children, Schools and Families (DCSF) which has now been replaced by the Department for Education (DFE).

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