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Abstract

The present article reviews the evidence-base for psychosocial interventions provided to children in family-based out-of-home care, and their caregivers, that aim to improve children’s mental health, felt security, and/or the quality, strength, or permanence of their attachment relationships. The review identified very few high-quality treatment trials carried out with this population. The interventions with the strongest evidence demonstrating their efficacy are Keeping Foster Parents Trained and Supported (KEEP), and Attachment and Biobehavioral Catchup (ABC). KEEP’s effectiveness has also been demonstrated in a community setting. Complex attachment- and trauma-related difficulties manifested by children in care following early maltreatment follow a long-term developmental course and have trait-like durability. Treatment trials should be designed as long-term studies, providing at least several years of post-treatment assessment.
**Practitioner points:**

- Very few high-quality intervention trials have been conducted with children and adolescents in out-of-home care and/or their caregivers.

- The interventions with the strongest efficacy evidence are Keeping Foster Parents Trained and Supported (KEEP), and Attachment and Biobehavioral Catchup (ABC).

- Given the enduring nature of complex trauma- and attachment-related problems, treatment trials should include long-term follow-up mental health and relational measures.

- The effectiveness of treatments administered directly to adolescents are moderated by caregiver involvement and ‘buy-in’
Introduction

The rationale for providing mental health and relational services to children residing in family-based out-of-home care (OOHC) ultimately depends on the availability of interventions that are meaningfully effective. Yet, among clinicians who work with these children and their foster and kin families, there is reasonable consensus that standard psychological interventions appear less effective than they are for referred children at large. A representative population study of U.S. children in long-term foster care (the National Survey of Child and Adolescent Well-being – NSCAW) found that receiving standard outpatient mental health treatments had no independent effect on 18-month changes to their carer-reported mental health scores (Bellamy, Traube, & Gopalan, 2010), suggesting that standard treatments are ineffective for this population over this timeframe. Notwithstanding this reality, it is increasingly expected that clinicians and mental health services working with children in care employ evidence-based treatments that are matched to children’s presenting symptoms or relational difficulties (Barth, Crea, John, Thoburn, & Quinton, 2005). There are two impediments to implementing this. First, standard mental health treatments have largely been evaluated with children who have simple or discrete mental disorders. Yet a relatively large proportion of children in care have complex attachment- and trauma-related disorders that are not adequately conceptualized within DSM or ICD classification systems (Tarren-Sweeney, 2013) – and the evidence base for treating such complex disorders is opaque. Second, there have been very few well-designed treatment trials conducted with children and young people in family-based care and/or their caregivers, most of which were fairly recent. Consequently, reviews and treatment guides in the early 2000s focussed on identifying the evidence base for treatments of prevalent mental disorders among children in care, as demonstrated in studies of referred children and/or maltreated children at large (Landsverk, Burns, Stambaugh, & Reutz, 2009; Romanelli et al., 2009). However, we can’t presume that
those data are valid for children in care, who have profoundly different developmental pathways and developmental experiences to that of children at large recruited to treatment trials.

**Guidance from organisations that promote evidence-based practice**

Aside from published clinical reviews, clinicians and mental health services obtain guidance from various organisations and services that evaluate or translate the efficacy and/or effectiveness of mental health interventions¹, including professional associations, research clearing houses, and organisations whose purpose is to identify and disseminate evidence-based practice – such as the UK’s National Institute for Health and Clinical Excellence (NICE). A Faculty of Child and Adolescent Psychiatry, Royal Australian and New Zealand College of Psychiatrists (RANZCP) position statement highlights several important assessment and treatment principles, such as the need for assessment and treatment to be developmentally and systemically informed, but otherwise does not refer to specific evidence-based interventions (Royal Australian & New Zealand College of Psychiatrists, 2015). An earlier RANZCP expert report describes the particular mental health and relational needs of children and young people in care – alluding mainly to the absence of an adequate evidence base, and the need for further clinical effectiveness studies (Royal Australian & New Zealand College of Psychiatrists, 2008).

In 2010, NICE and the UK’s Social Care Institute for Excellence (SCIE) published a public health guideline for working with children and young people in care (NICE & SCIE, 2010). While the guideline neither reviews, nor comments on treatment effectiveness, it recommended that government should fund and facilitate treatment effectiveness research for

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¹ *Efficacy* refers to evidence established under optimal research conditions (such as a university research clinic), while *effectiveness* refers to how well an intervention performs under real world constraints (such as in a busy CAMHS service).
Mental health interventions for children in care

this population. But the research questions proposed in the guideline exclude any reference to identifying effective mental health interventions for this population – focussing instead on such things as social care models and access to mental health services. NICE has also published a number of clinical guidelines for treatment of child mental health difficulties, some of which are particularly pertinent to children in OOHC (notably ADHD, PTSD, Conduct Disorder, and depression). However, these do not review differential treatment effectiveness for in-care populations or other vulnerable groups. Indeed, most clinical practice guidelines and treatment reviews published by professional associations to date do not refer to treatment effectiveness for children in OOHC – or consider the extent to which efficacy findings generalise to special populations, or to children with complex difficulties (see for example the Australian Psychological Society’s review of evidence-based psychological interventions – (Australian Psychological Society, 2018).

Presently, the most authoritative guidance on mental health interventions for child welfare clients is provided by the California Evidence-Based Clearinghouse for Child Welfare (CEBC) (California Evidence-Based Clearinghouse for Child Welfare, 2020). The clearinghouse rates the effectiveness and relevance of mental health interventions using two metrics: A scientific rating of research evidence on efficacy and effectiveness on a 5-point scale (ranging from ‘I. well-supported by research evidence’, to ‘V. concerning practice’); and a child welfare system relevance level (high, medium or low) that rates the extent to which an intervention is purposely designed for child welfare clients, and/or has been trialled with child welfare samples. Nevertheless, these ratings fall short of explicitly communicating the effectiveness of mental health and relational interventions delivered to children and young people in family-based OOHC.
Published research reviews

Since 2005, there have been nine published research reviews of psychosocial interventions targeting children’s mental and relational health that have been trialled with children and/or caregivers in family-based OOHC (Bergstrom, 2020; Craven & Lee, 2006; Hambrick, Oppenheim-Weller, N’zi, & Taussig, 2016; Kemmis-Riggs, Dickes, & McAloon, 2018; Kinsey & Schlosser, 2013; Leve et al., 2012; Luke, Sinclair, Woolgar, & Sebba, 2014; Racusin, Maerlender, Sengupta, Isquith, & Straus, 2005; Tarren-Sweeney, 2014), including one meta-analysis (Bergstrom, 2020). These reviews vary somewhat in their methodology, extent of systematic appraisal, how they rate treatment effectiveness, and conclusions. Supplementing these reviews are: one relevant research commentary (Barth et al., 2005); a review of methodological challenges for evaluating interventions with this population (Dickes, Kemmis-Riggs, & McAloon, 2018); and a recent protocol for a Campbell systematic review (Dalgaard, Pontoppidan, Thomsen, Viinholt, & Filges, 2020).

In addition to the nine general reviews, there are several reviews of the effectiveness of specific types or classes of interventions or sub-populations, namely: three reviews (Dozier, Albus, Fisher, & Sepulveda, 2002; Turner, MacDonald, & Dennis, 2009; Wu, Zhu, Ogbonnaya, Zhang, & Wu, 2020) and two meta-analyses of foster and/or kinship caregiver interventions (Schoemaker et al., 2020; Solomon, Niec, & Schoonover, 2017); and two reviews of attachment-focused and relational support services and interventions (Howe, 2006; Kerr & Cossar, 2014). While there have been two equivalent reviews of research conducted with adopted children in general (Ni Chobhthaigh & Duffy, 2019; Stock, Spielhofer, & Gieve, 2016), there has been no review of research exclusive to children adopted from care. While two reviews of Treatment Foster Care (TFC) have mostly covered studies of youth who do not ordinarily reside in OOHC (such as juvenile justice) (Dore & Mullin, 2006; MacDonald & Turner, 2008), [insert author’s names]' article in this special
issue includes a critical appraisal of TFC’s utility and ‘real-world’ effectiveness for UK children in OOHC [insert citation here and in reference list].

Review method

The present review aims to inform clinicians and policy-makers of the availability, relevance and evidence-base of mental health and relational interventions for children in family-based OOHC. It updates and replaces a previously published review and research commentary (Tarren-Sweeney, 2014).

Scope of the review and inclusion criteria

1. To define the scope of the present review, the term ‘mental health and relational interventions’ refers to any psychosocial intervention (excluding pharmacological) delivered to children in family-based OOHC and/or their caregivers, where the intervention goal is to improve: children’s mental health; and/or related aspects of their psychological development; and/or the quality, strength, security or permanence of their attachment relationships. The reason why such a broad definition of ‘mental and relational health’ is necessary is because many children who grow up in legally impermanent OOHC fail to acquire close and enduring family relationships – which is fundamental to their mental health and well-being, and long-term psychological functioning.

2. The present review is also restricted to evaluating specific, manualised psychosocial interventions – not service or treatment models. It therefore excludes evaluations of wraparound services and multi-systemic therapy.

3. A grey area for the review’s scope is differentiating between foster carer training, and foster carer intervention programmes. Both types of programmes can include similar modules on psychoeducation, behaviour management, sensitive caregiving and facilitating close relationships. However, the present review excludes evaluations of
Mental health interventions for children in care

foster carer training programmes that do not measure outcomes for presently-placed children.

4. As alluded to in the introduction, the present review focusses exclusively on evaluation studies carried out with children in OOHC and/or their caregivers.

Search and selection of interventions for review

Given the present review is an update of a review published in 2014, the search was limited to research published since 2011. The main search was carried out in the PsycINFO, Medline, PubMed and SocINDEX databases. The search combined (a) target population terms with (b) intervention terms. The population terms were: ‘foster care’; ‘out-of-home care’; ‘kin / kinship care’; ‘foster carers’; ‘foster parents’; ‘kin carers’; ‘looked after children’; ‘LAAC’; and ‘children in care’. The intervention terms were: ‘programme’; ‘intervention’; ‘psychotherapy’; ‘psychological therapy’; ‘therapy’; and ‘treatment’. A secondary manual search was carried out by back-tracing articles cited in recent published reviews and articles identified for the present review. A third search strategy involved checking Scopus records for authors who had published relevant research previously.

Unsurprisingly this search yielded a very large number of articles, including many unrelated to mental or relational health. The publications were initially screened by reading their abstracts. Articles that passed this first brief screen were then checked to determine if they met the above-listed inclusion criteria. Due to space constraints, the present narrative review was then further limited to those interventions that have the strongest evidence base and/or have been evaluated for the target population in multiple studies. Interventions that met the inclusion criteria but were not included in the review were:

a. *Kids in Transition to School* (KITS) school readiness intervention (Pears et al., 2013; Pears, Kim, & Fisher, 2012);
b. *Fostering Connections*, a recently-developed ‘trauma-informed’ foster care training programme (Lotty, Dunn-Galvin, & Bantry-White, 2020);

c. *Parent Management Training Oregon* (PMTO) intervention designed for families that have children with severe externalizing difficulties (Maaskant, van Rooij, Overbeek, Oort, & Hermanns, 2016);

d. *Foster Family Intervention* recently developed in the Netherlands (Van Andel et al., 2016);

e. *Incredible Years parent training* programme (Bywater et al., 2011); and

f. *Incredible Years child training* programme, an adaptation of the Incredible Years Dina Programme for Young Children, designed to help children reduce aggression through self-regulation of behaviours and emotions (Linares, Li, & Shrout, 2012).

I am also aware of three relevant RCTs that are currently underway in the UK. The first is a feasibility RCT of an adaptation of Mentalization-Based Treatment (MBT) for school-aged children and adolescents in foster care and their carers (Midgley et al., 2017). The second is the long-awaited Dyadic Developmental Psychotherapy (DDP) RCT that is scheduled to finish in 2024 (Helen Minnis, personal communication, 8/11/2000). DDP is a relationship-focussed dyadic (parent and child) psychotherapy that is based largely on attachment theory and research on sensitive parenting (Hughes, Golding, & Hudson, 2015). The third is an RCT of a video feedback (VIPP) attachment and parenting intervention for foster carers of young children (Fearon, 2020).

**Narrative review**

**Treatment Foster Care Oregon (TFCO)**

Treatment Foster Care Oregon (TFCO), formerly known as Multidimensional Treatment Foster Care (MTFC) is an intensive, wraparound, multi-component intervention in
which children and young people reside for a limited time period with a *treatment* foster family (Chamberlain, 2003). It was initially developed as an alternative to residential and group care for adolescent young offenders and those with severe behavioural and emotional problems, and to date has largely been studied with participants who otherwise would be placed in residential treatment (MacDonald & Turner, 2008). As such, it presents as a particularly promising intervention for young people in the care system whose disruptiveness generates placement instability, who have complex mental health difficulties, and who otherwise are more likely to be placed in residential care. Different versions of TFCO have been developed for adolescents, children and pre-schoolers. The adolescent and pre-school variants have been evaluated in RCTs with children in care.

**Treatment Foster Care Oregon for Adolescents (TFCO-A).** There has been one formal evaluation of *TFCO-A* with older children and young people in OOHC. This study was carried out in the UK, involving parallel RCT and observational studies, with most participants being enrolled in the latter study (aged 11-16, N=219) (Biehal et al., 2012; Green et al., 2014). Propensity score matching was employed to adjust for differences between the quasi-experimental and control (usual foster care) samples. Importantly, the treatment and control samples were ‘hard to manage’ young people who had unstable placement histories, and who had either been in residential care or were on a pathway to residential care. Following propensity score matching, participants who received MTFC did not significantly differ from the control group on a range of outcomes, including subsequent placement stability, participation in education, or recorded offending, and pre-post changes in global functioning and mental health (Biehal et al., 2012; Green et al., 2014). Young people who had serious antisocial behaviour problems did better if they resided in TFCO-A, while those who were not seriously antisocial did better in regular care. It was notable that many of the latter group had mental health difficulties other than antisocial behaviour. These findings
Mental health interventions for children in care

suggest that TFCO-A may be effective for older children and young people in the care system who are seriously antisocial, and who do not have complex mental health difficulties. For other ‘hard to manage’ adolescents in OOHC however, any benefits offered by TFCO-A may be offset by the toll of additional placement moves (Sinclair et al., 2016). An article published in the present special issue explores various systemic barriers to implementing TFC in the UK that may have accounted for its poor implementation and effectiveness in that country [insert reference for article in the present special issue titled: Evidence Supported Interventions for Children in Care: Does Treatment Foster Care Oregon (TFCO) fit within the UK context?].

Treatment Foster Care Oregon for Preschoolers (TFCO-P). TFCO-P, formerly known as Multidimensional Treatment Foster Care for Preschoolers, and Early Intervention Foster Care, is a version of TFCO adapted for younger children in care aged 3 to 6 years, who have yet to obtain permanent placements (Fisher, Gunnar, Chamberlain, & Reid, 2000). Whereas TFCO-A is designed for children with existing behavioural difficulties, TFCO-P is a preventative, population-based intervention for pre-school aged children in care. TFCO-P contains a number of developmentally-informed variations from the original MTFC that make it more appropriate for preschool-aged children. The “intervention is delivered via a team approach to the child, foster care provider, and permanent placement resource (birth parents and adoptive relatives or non-relatives)” (Fisher, Burraston, & Pears, 2005). A goal of the intervention is to transition children to a permanent placement, typically within 6 to 9 months (Fisher et al., 2005).

To date, two RCTs have tested the effectiveness of TFCO-P with young children in care. The first was an efficacy trial carried out by the intervention developers in the United States. Its findings suggest TFCO-P is an efficacious intervention for preschool children in care. Compared with preschoolers residing in regular temporary foster care (the control
intervention, N=60), children placed with TFCO-P caregivers (N=57) showed significant increases in secure attachment behaviour and reductions in insecure avoidant attachment behaviour over the study period (Fisher & Kim, 2007). By the end of the treatment period, they also manifested stress hormone activity patterns resembling that of non-maltreated children at large, whereas the control sample continued to show abnormal stress hormone activity consistent with their early history of maltreatment (Fisher, Stoolmiller, Gunnar, & Burraston, 2007). Furthermore, the foster care control group had lower and more variable cortisol levels across multiple time-points than did the treatment and community groups (Laurent, Gilliam, Bruce, & Fisher, 2014). Among a sub-sample of children who entered the study with unstable placement histories, children in a TFCO-P placement (N=29) had double the rate of retention within their subsequent permanent placements two years post-study, than control children (N=23) (Fisher, Kim, & Pears, 2009). Except for the stability of subsequent permanent placements, these effects were measured whilst the participants were in the care of their treatment and regular foster parents. Otherwise, the effects of children being moved to a subsequent placement, including any effects of loss of attachment figures, could not be measured using this particular study design, as both the treatment and control samples experienced a subsequent change of placement.

By contrast, the second RCT (carried out in the Netherlands) suggests that TFCO-P is no more effective than therapeutic interventions provided to existing foster parents of young children with severe behaviour problems (Jonkman et al., 2017). This RCT compared TFCO-P (N=55) with treatment as usual (TAU) (N=23) on prospective measures of mental and relational health (including trauma symptoms), caregiver stress and child HPA-axis functioning (salivary cortisol). Children aged 3 to 7 with severe behaviour problems who were indicated for permanent foster placements were randomly assigned to either TFCO-P or TAU. It is important to emphasise that being assigned to TFCO-P involved a planned transfer
Mental health interventions for children in care

to a time-limited (9-month) treatment foster placement, whereas assignment to TAU meant that some children remained in their existing temporary placement. Consequently, mean time in current placement at baseline for the treatment group (2.4 months) was much shorter than for the TAU group (16.5 months). Nonetheless, there were no differences in mean behavioural functioning at baseline. No significant group differences were found in pre-post measures, with the exception of reduction in trauma symptoms, which favoured TAU.

There is thus conflicting evidence on TFCO-P’s effectiveness as a stabilising intervention to prepare young children for permanent placements. It perhaps has the potential to stabilise children in such circumstances, and to increase their chances of attaining non-disrupted permanent care. However, I think it is important to guard against seeing TFCO-P as a necessary preparation for permanency for young children in OOHC who have serious behaviour problems, if the implication is that their time in temporary foster care is extended. We also need to factor in the developmental implications of children being proactively moved through an additional temporary placement at a time when they should be with a permanent family.

**Carer-child dyadic interventions that focus on child behaviour management, strengthening attachments, and carer sensitivity and competence**

**Attachment and Biobehavioral Catchup (ABC).** The ABC intervention was developed by Mary Dozier and her colleagues to facilitate relationship formation and associated biobehavioural development for maltreated infants and toddlers, and for those who have experienced disrupted attachments. The intervention has been evaluated in one RCT with a sample of infants and toddlers in foster care, where the control intervention was provision of developmental education. Published findings were derived from a number of
Mental health interventions for children in care

different analyses carried out at different stages of participant recruitment, with the number of study participants ranging from 46 to 121, with half being randomly allocated to each of the ABC and control interventions. Treatment and control groups were also compared with a similar-age low-risk community group.

Treatment infants showed significantly less avoidant attachment behaviour than control infants following distress-eliciting incidents reported over a three-day period (Dozier et al., 2009). However, this analysis does not appear to account for infants’ pre-treatment attachment security. The distribution of post-intervention morning and afternoon cortisol production by treatment infants closely paralleled that of a comparison sample of infants at large who were not in foster care, and was significantly lower than that produced by control infants (Dozier et al., 2006). Moreover, the difference in mean cortisol production between treatment and control infants was developmentally meaningful. While treatment and control infants had a similar scale of post-intervention behaviour problems, an age effect was found among the treatment sample – treated toddlers (18-36 months) had fewer behaviour problems than treated infants. Treatment infants (N=47) also showed considerably lower stress reactions than control infants (N=47) during a strange situation procedure, as measured by cortisol prior to, and then 15 and 30 minutes after the procedure (Dozier, Peloso, Lewis, Laurenceau, & Levine, 2008). An important additional finding was that infants receiving the ABC intervention had very similar cortisol levels at each point of measurement to the low-risk community sample, suggesting their stress regulation is normatively distributed. The study also identified longer-term neurodevelopmental improvements in executive functioning in favour of the treatment group. Follow-up measures of attention and executive functioning at age 48 months (Child Behavior Checklist (CBCL) attention problems scale; Dimensional Change Card Sort) suggest that intervention children and the low-risk community group had
Mental health interventions for children in care

less attentional difficulties and greater cognitive flexibility in comparison with control children (Lind, Lee Raby, Caron, Roben, & Dozier, 2017).

The study also yielded evidence of a positive effect on caregiver sensitivity, as measured from videos by coders blind to group assignment. A hierarchical linear model that controlled for several likely confounders (including infant age) identified that intervention foster mothers manifested greater increases in sensitivity toward their infant from pre-intervention through to post-intervention assessment, than control foster mothers (Bick & Dozier, 2013).

In summary, there is good evidence that the ABC intervention has a therapeutic effect on the stress regulation, attachment security and neurodevelopment of infants and toddlers in care, as well as on foster carer sensitivity. However, there is inconclusive evidence that this translates into reduced behaviour problems shortly after treatment. It is important to note that achieving normalisation of infant stress regulation and increased attachment security has far greater developmental significance for subsequent mental health, than reducing their frequency of behaviour problems.

Keeping Foster Parents Trained and Supported (KEEP). KEEP is an adaptation of TFCO that provides lower intensity training to existing foster parents without TFCO’s level of clinical support (Price, Chamberlain, Landsverk, & Reid, 2009). Whereas TFCO requires time-limited placement of a single child or young person with specially trained treatment foster parents, KEEP does not necessitate placement moves into and out of a treatment foster home and can also support placements with more than one child. It can therefore be administered without disrupting existing caregiver and sibling relationships.

KEEP has been evaluated in two RCTs in the United States, the first being an efficacy study (Chamberlain et al., 2008), and the second being an effectiveness study delivered through a community agency (Price, Roesch, & Burce, 2019). Additionally there have been
two evaluations of KEEP programmes that measured positive changes in children’s mental health as well other critical outcomes such as placement stability – but they did not include control groups (Greeno et al., 2016; Roberts, Glynn, & Waterman, 2016).

The first RCT compared outcomes for children in foster and kinship care (ages 5-12 years, N=700) randomly allocated to either the KEEP programme or to continue receiving standard casework services (that included some training for carers) (Price et al., 2009). Children whose caregivers received the KEEP intervention showed a modest, though meaningful pre-post intervention reduction in their mean number of behaviour problems per day (reduced from 5.9 to 4.4), whereas the group who received usual care showed less meaningful reduction (5.8 to 5.4) (Chamberlain et al., 2008). Furthermore, the biggest reductions in behaviour problems were observed among those children who had higher levels of initial problems. The other critical finding was that children in the KEEP supported placements were more likely to obtain a planned move to a permanent placement (i.e. restoration, permanent kinship placement or adoption) than control children (Price et al., 2008). However, there was no difference between the groups in the rate of unplanned placement breakdowns and other negative exits from children’s current placements.

The second RCT evaluated KEEP’s effectiveness when delivered by a community agency to foster families having two or more children, with foster families randomized to KEEP (N=148) or services as usual (SAU, N=162) (Price et al., 2019). This study measured meaningful reductions in both conduct and internalizing difficulties in the treatment group relative to controls. The proportion of children residing in treatment families with borderline or clinical range CBCL ‘rule breaking’ scores declined significantly through the evaluation period (the rate of problematic CBCL ‘rule-breaking’ scale scores fell from 34% to 19%), whereas equivalent rates for control children remained static. Similarly, the proportion of treated children having borderline or clinical range CBCL ‘internalizing’ scores fell from
35% to 24%, whereas the rates for control children slightly increased from 29% to 32%. KEEP foster carers’ mean parental stress scores also fell during the study period ($d=0.35-0.44$) from baseline to follow-up, while mean SAU parents scores remained stable (Price, Roesch, Walsh, & Landsverk, 2015). This study provides evidence that KEEP remains effective when delivered by a community agency.

**Parent-Child Interaction Therapy (PCIT).** PCIT is parenting intervention designed to reduce young children’s behaviour problems through a combination of psychoeducation, coaching, modelling and role play, involving joint parent-child treatment and in vivo parent coaching (Mersky, Topitzes, Janczewski, & McNeil, 2015). PCIT has been evaluated in a pre-post non-controlled study that compared treatment outcomes for referred foster parent–child (N=75) versus referred biological parent–child (N=99) dyads (Timmer, Urquiza, & Zebell, 2006). The groups showed comparable pre-post reductions in child behaviour problems and parental distress. One RCT compared pre-post changes in foster parent and child (ages 2.5-7 years) outcomes across three conditions, namely ‘extended PCIT’ (N=27), ‘brief PCIT’ (N=36) and waitlist control (N=33). Mixed-model repeated measures analyses revealed that, relative to controls, the two treatment conditions showed comparable reductions in self-reported parenting stress, as well as increases in observed positive parenting and reductions in negative parenting, with mostly moderate effect sizes (Mersky et al., 2015). Separate analyses of child mental health scores were carried out with a sub-sample of dyads, restricted to children aged 3-6 years with clinical-level externalizing problems at baseline (N = 14, 29 and 25 respectively) (Mersky, Topitzes, Grant-Savela, Brondino, & McNeil, 2016). The two treatment groups showed small to medium pre-post reductions in child internalizing and externalizing problems relative to controls. A weakness of this RCT is that the final assessment measures were obtained while the extended PCIT was still in
progress, and only a few weeks after the brief PCIT had finished. Hence, the durability of the
treatment effects is unknown.

**Fostering Changes.** *Fostering Changes* (FC) is a foster carer therapeutic support and
training programme delivered in a group format (Briskman et al., 2012). It is designed to
strengthen carer-child relationships and develop carers’ skills for managing challenging
behaviours. FC is underpinned by social learning, cognitive-behavioural, and attachment
theories, and its main therapy components are psychoeducation, behaviour management and
relationship-building. FC has been evaluated in two pre-post non-controlled studies (Pallett,
Scott, Blackeby, Yule, & Weissman, 2002; Warman, Pallett, & Scott, 2006) and two RCTs
(Briskman et al., 2012; Moody et al., 2020). The first RCT, an efficacy study carried out by
the developers, randomly assigned foster carers to the intervention (N=34) or to waitlist
control (N=29) (Briskman et al., 2012). Compared to controls, intervention participants’
target foster children showed greater pre-post reductions in mean Strengths and Difficulties
Questionnaire (SDQ) total problems (d = 0.3), and hyperactivity (d = 0.4) scores; and greater
pre-post improvement in mean scores on an attachment relationship measure (d = 0.4) and a
caregiver efficacy measure ((d = 0.7). The second FC RCT was a Welsh study involving 312
foster carers from 19 sites assigned to the intervention (N=204) or usual care (N=108)
(Moody et al., 2020). Two thirds of group participants attended sufficient sessions to be
included in the analyses. At 12-months follow-up, there were no significant or meaningful
mean differences (between intervention and control groups) on carer-reported self-efficacy,
child mental health problems (as measured by the SDQ), or placement stability (Moody et al.,
2020).

An important difference between the two RCTs is that the initial trial obtained post
measures in the last week of treatment, whereas the second trial measured outcomes 12-
months post-intervention. This suggests a possibility that effects measured at the end of
Mental health interventions for children in care

treatment may not be sufficiently enduring. Given the contradictory findings from the two RCTs, we are presently unable to draw conclusions about Fostering Changes’ effectiveness.

Interventions administered directly to children and adolescents

Study of three child trauma interventions: CPP, TF-CBT and SPARCS. The effectiveness of three age-bounded interventions designed to treat traumatic stress symptoms was evaluated in a clinical trial with 133 children and young people in (aged 3-18) enrolled in a wraparound foster care programme in the United States, who had previously experienced a moderate or severely traumatic incident (Weiner, Schneider, & Lyons, 2009). The interventions were Child-Parent Psychotherapy (CPP, N=65, ages 3-6), Trauma-focussed Cognitive Behavioural Therapy (TF-CBT, N=35, ages 3-16), and Structured Psychotherapy for Adolescents Responding to Chronic Stress (SPARCS, N=33, ages 13-18).

The goal of CPP is to facilitate young (ages 0-5) children’s recovery from traumatic stress by increasing parental sensitivity, strengthening parent-child attachments, and boosting children’s felt security, using a dyadic psychotherapy format. The extent of children’s direct engagement in CPP varies according to their age. TF-CBT attempts to reduce children’s unpleasant physiological trauma symptoms using a range of cognitive, behavioural and psycho-education techniques. While the child is the primary participant in TF-CBT, the intervention includes education for parents that seeks to normalise their child’s experiences, moderate unhelpful parental reactions to their child’s distress, and to provide emotional support for their child. SPARCS is a group intervention for adolescents who have experienced traumatic stress. It employs various components of Dialectical Behaviour Therapy (DBT), with strong focus on acquiring improved mindfulness, interpersonal skills, and coping abilities. Each of these interventions has previously been evaluated with traumatised children at large.
The study design did not include a control intervention, although inclusion of three study interventions provided opportunity to compare their relative effectiveness. The study’s primary goal was to identify the relative effectiveness of these interventions with different racial groups. Treatment effect sizes were not reported for the aggregate samples, and some of the ethnicity-treatment groups had too few participants to estimate treatment effectiveness. Clinically meaningful pre-post reductions in trauma symptoms were measured for young African-American, Biracial, and Hispanic (but not White) children who received CPP. Clinically meaningful reductions were measured for African-American and White children who received TF-CBT (no other ethnicity group had sufficient sample size). African-American youth who participated in the SPARCS intervention showed a statistically significant, though less clinically meaningful reduction in trauma symptoms (other ethnic groups had insufficient sample size). These results were achieved in a real-world setting, and thus can be considered to be measures of effectiveness. The study findings suggest that CPP and TF-CBT are possibly effective interventions for treatment of trauma symptoms experienced by children in care, while SPARCS is a less promising intervention for young people in care. A more recent RCT compared TF-CBT with and without an additional foster carer engagement component (Dorsey et al., 2014). However, none of the three interventions have been evaluated against a regular control condition within this population.

**Discussion**

The present review points to three main conclusions. Firstly, the evidence base for mental health and relational interventions for children in family-based OOHC and their caregivers remains thin. There have been very few high-quality treatment trials conducted for specific interventions with this population. Secondly, this review has identified very few studies that included sufficient follow-up assessment. Complex attachment- and trauma-related difficulties experienced by many children in care typically follow a long-term developmental
Mental health interventions for children in care

course and have trait-like durability. Consequently, children’s recovery from developmental trauma tends to occur over much longer time periods than does recovery from more discrete, state-like disorders (Tarren-Sweeney & Goemans, 2019). Among older children who enter care with complex difficulties, meaningful therapeutic change is unlikely to be revealed until the child has experienced several years of consistent, structured and sensitive caregiving, without a change in caregivers. The implication then is that RCTs with this population need to be set up as long-term studies, providing at least several years of post-treatment assessment.

Thirdly, this review concludes that the KEEP and ABC interventions have the strongest evidence base demonstrating their efficacy for improving children’s mental health and development. KEEP’s effectiveness has additionally been demonstrated in a community setting, whereas ABC’s efficacy has yet to be replicated in a second RCT. ABC and TFCO-P have measurable positive effects on young children’s neurodevelopment, while ABC also effects positive changes in infant attachment security and foster carer sensitivity and commitment.

Both KEEP and ABC have been designed to counter the developmental effects of pre-care adversity and maltreatment – as well as some of the developmental consequences of a flawed model of social care (that creates poor conditions for developing secure attachments, and which delays young children’s access to permanent, loving care). Ultimately, I believe the therapeutic potential of mental health and relational interventions could be extended if child welfare jurisdictions were to apply them within a reformed social care system – one that does away with extended periods of non-permanent care for infants and young children. For example, depending on local legislation, it may be feasible for children’s agencies to implement (or modify) interventions like TFCO-P, KEEP and ABC within a concurrent planning care model. With concurrent planning, the infant or young child who is in need of
Mental health interventions for children in care

care is placed with caregivers who are both ‘temporary foster parents’ and ‘prospective adoptive parents’, while court assessments, birth parental interventions, and final care proceedings are carried out (Frame, Berrick, & Coakley, 2006; Monck, Reynolds, & Wigfall, 2004). Concurrent planning is designed to reduce placement changes for young children who are not restored to their parents’ care, and offers greater potential for committed, sensitive temporary caregiving for those young children who are restored.

It has been claimed that the social care field has focussed too greatly on attachment theory as a vehicle for therapeutic recovery of children in care, and that this has blinded us to recognising other psychotherapeutic opportunities (Barth et al., 2005). This has partly come as a response to controversy about both the effectiveness and humaneness of so-called ‘attachment therapies’ (Chaffin et al., 2006; Dozier, 2003). In my view, this debate has been overshadowed by the misappropriation of the word ‘attachment’ and attachment principles by a number of psychotherapies. I think these claims also reflect a lack of understanding about the developmental timeframes, family systemic conditions, and social care systemic influences that facilitate a natural recovery from attachment-related difficulties, without input from clinicians. For many children in care, mental health recovery occurs slowly and naturally over a period of several years – if they are fortunate to have sensitive, loving and committed caregivers; if their placements are permanently maintained (even if they have a legally permanent placement); and if they do not encounter too many assaults on their felt security from their social care system. Much of this is explained by attachment theory and research (Schofield & Beek, 2005). To a large extent also, many of the mental health interventions designed specifically for children in care work to establish and maintain these conditions for natural recovery – often through supporting and sustaining caregivers, and by attempting to counter harmful caregiver reactions to children’s attachment difficulties.
References

[insert reference for article in the present special issue titled: Evidence Supported Interventions for Children in Care: Does Treatment Foster Care Oregon (TFCO) fit within the UK context?]


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Mental health interventions for children in care


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