Family therapy for child and adolescent eating disorders: A critical review

Authors:

- Tom Jewell, Institute of Psychiatry, Psychology and Neuroscience, King’s College London, UK.
- Esther Blessitt, South London and Maudsley NHS Foundation Trust, UK.
- Catherine Stewart, Institute of Psychiatry, Psychology and Neuroscience, King’s College London, UK and South London and Maudsley NHS Foundation Trust, UK.
- Mima Simic, South London and Maudsley NHS Foundation Trust, UK.
- Ivan Eisler, South London and Maudsley NHS Foundation Trust, UK.

Word count: 7978

Acknowledgements: Supported by National Institute of Health Research (NIHR) Clinical Doctoral Research Fellowship, Tom Jewell, CDRF-2014-05-024. The views expressed are those of the author and not necessarily those of the NIHR.
Family therapy for child and adolescent eating disorders: A critical review

Abstract

Eating disorder-focused family therapy has emerged as the strongest evidence based treatment for adolescent anorexia nervosa supported by evidence from nine RCTs, and there is increasing evidence of its efficacy in treating adolescent bulimia nervosa (three RCTs). There is also emerging evidence for the efficacy of multi-family therapy formats of this treatment, with a recent RCT demonstrating the benefits of this approach in the treatment of adolescent anorexia nervosa. In this article we critically review the evidence for eating disorder-focused family therapy through the lens of a moderate common factors paradigm. From this perspective, this treatment is likely to be effective since it provides a supportive and non-blaming context that one, creates a safe, predictable environment that helps to contain anxiety generated by the eating disorder, two, promotes specific change early on in treatment in eating disorder related behaviors, and three provides a vehicle for the mobilization of common factors such as hope and expectancy reinforced by the eating disorder expertise of the multidisciplinary team. In order to improve outcomes for young people, there is a need to develop an improved understanding of the moderators and mediators involved in this treatment approach. Such an understanding could lead to the refining of the therapy, and inform adaptations for those families who do not currently benefit from treatment.
Introduction

In this article we provide a critical review of the evidence for eating-disorder focused family therapy (Eisler, Le Grange and Lock, 2015) for children and adolescents. We will look at the evidence as it pertains to anorexia nervosa (AN) and bulimia nervosa (BN), the two disorders that have been most-studied in the child and adolescent population. AN is a disorder characterized by significantly low weight, dietary restriction, intense fear of weight gain and distorted body image, and consists of restricting and binge/purge subtypes (APA, 2013). BN is characterized by a similar fear of weight gain, as well as binge eating followed by compensatory behaviors such as vomiting or laxative abuse. Using DSM-5 criteria (APA, 2013), the lifetime prevalence of AN is 1.7%, whilst for BN it is 0.8% (Smink et al., 2014).

The evidence for treatment of child and adolescent eating disorders has been reviewed extensively in recent years. Systematic reviews have concluded that family therapy for adolescent anorexia nervosa (FT-AN) has strong evidence of efficacy (Watson and Bulik, 2013; Lock, 2015), with higher rates of recovery at 6 and 12-month follow-up as compared to individual therapy (Watson and Bulik, 2013; Couturier et al., 2013a; Downs and Blow, 2013; Lock, 2015). FT-AN is the recommended treatment for adolescent AN in clinical guidelines for a number of countries, such as the U.S (APA, 2006) and UK (NICE, 2004), and is the only well-established treatment available for this population (Lock, 2015). The evidence for psychosocial treatments of BN is more limited, but family therapy for adolescent bulimia nervosa (FT-BN) has been found to be superior to cognitive behavior therapy (CBT) in a recent RCT (Le Grange et al., 2015). Previous studies of FT-BN have shown

---

1 Eating disorder focussed family therapy has been variously referred to as the Maudsley approach, the Maudsley Model of family therapy or Family-Based Treatment (FBT) but these terms can be ambiguous as they are also sometimes used to refer specifically to a particular treatment manual. For consistency and clarity, in this article we will use the term ‘eating-disorder focussed family therapy’ (FT-AN or FT-BN) as an umbrella term, and then describe adaptations of this approach for anorexia nervosa (FT-AN) and bulimia nervosa (FT-BN), including both single and multi-family therapy formats. In this article we use terms such as FBT or BFST (Behavioral Family Systems Family Therapy for anorexia nervosa) to refer specifically to studies using particular manuualized forms of this treatment.
it to achieve comparable outcomes to CBT (Schmidt et al., 2007) and superior outcomes to supportive psychotherapy (Le Grange et al., 2007). Evidence is also accumulating for the efficacy of multi-family therapy formats, in which several families with a child with an eating disorder come together for intensive group treatment (Eisler et al., submitted; Simic and Eisler, 2015).

In this article we will review the evidence for eating disorder focused family therapy through the lens of the common factors paradigm (Sprenkle, Davis and Lebow, 2009; Wampold, 2010). This perspective emphasizes the importance of variables which apply across all therapeutic models, such as client and therapist factors, therapeutic alliance, therapist allegiance to the treatment model, and the mobilization of client hope or expectancy. Since these common factors have been argued to account for a much greater proportion of variance in outcome than the specific model employed in treatment (Asay and Lambert, 1999), the common factors paradigm lends itself to a critical appraisal of the evidence for any empirically supported treatment – particularly claims of greater efficacy relative to other treatments. Whilst the common factors paradigm has sometimes led to polarized debates about the relative merits of common factors as compared with specific models and techniques, it is possible to take a ‘moderate common factors’ position: that is, both accepting that common factors are key ingredients to successful psychotherapy, and yet remaining open to the possibility that specific aspects of a treatment model or particular techniques can be superior for particular difficulties or sub-groups of clients (Sprenkle, Davis and Lebow, 2009). In this article we will be adopting just such a position in our review of the evidence.
Description of the treatment

Family therapy for Anorexia Nervosa (FT-AN)

The core features of FT-AN include the following: a clear focus on working with the family to help their child recover, coupled with a strong message that the family is not seen as the cause of the problem; expecting the parents to take a lead in managing their child’s eating in the early stages of treatment; externalizing the eating disorder; and a shifting of focus on to adolescent and family developmental life cycle issues in the later stages of treatment (Eisler, Wallis and Dodge, 2015). Whilst the treatment has been manualized by a number of research teams, the different treatment manuals all adhere to the core principles just outlined (for more detailed discussion see Eisler, Wallis and Dodge, 2015). In this article we describe the treatment as operationalized in the Maudsley service manual (Eisler et al., 2016).

In our conceptualization the treatment is an integrative four-phase systemic treatment model delivered by a therapist in the context of a specialist multi-disciplinary eating disorders team setting. In Phase One, Engagement and development of therapeutic alliance, the child is assessed alongside their parent/s. The assessment process has a strong multidisciplinary focus that includes a psychiatric frame (confirming the diagnosis, identifying co-existing problems such as anxiety, depression or self-harm), a medical/pediatric frame (evaluating medical and physical risk that have to be managed safely), an individual psychological frame (exploring motivation to change, identifying cognitive and temperamental characteristics of the young person) as well as a family systems frame (developing a systemic formulation and identifying areas of family strengths and resilience) but the assessment is also the beginning of the process of engagement between therapist and family. The therapeutic engagement should include all family
members including the young person even though they may often appear to be a reluctant participant at first. The therapist offers information about AN and the physiological as well as psychological effects of starvation (Keys et al., 1950) highlighting the fact that many of the phenomena associated with eating disorders are characteristic of anyone in a state of starvation. The providing of expert information thus becomes part of the process of externalizing the illness reinforced by “externalizing conversations” (White and Epston, 1990), with the aim of developing a therapeutic ethos of non-blame and guilt reduction. The inclusion of a medical examination at assessment helps to engender an appropriate atmosphere of concern, promotes a message to the parent/s that they need to act urgently to reverse the effects of starvation, and contributes to the development of a safe base for treatment. During the final part of the assessment, a meal plan is presented to the parents as a ‘prescription’ for recovery. The family are reassured that the therapist will work alongside them, beginning with a family meal within the next week where further advice and information will be provided by the therapist. Weekly appointments are the norm during the early stages of treatment whilst parent/s and patient struggle with the demands of feeding and weight restoration.

In Phase Two, Helping families manage the eating disorder, the therapist continues to encourage parents to take a lead in managing their child’s eating, while emphasizing the temporary nature of this role. The child is weighed by the therapist at the start of each session with the focus of therapy then being dictated by the weight trajectory. Therapeutic tasks in this phase will include detailed exploration of what happens at mealtimes, exploring parental roles, increasing parents’ sense of agency, for instance through challenging beliefs about the impossibility of parental action, and sharing examples of what other families have done to overcome similar difficulties. While much of the focus is on how the parents can
help their child it is important for the therapist to maintain a good engagement with the young person, discussing broader goals that can be achieved as physical health is gradually restored.

With most families this phase tends to have a fairly behavioral focus and relational issues that are raised are noted as important but left to be “addressed at a later stage when the physical concerns have been resolved”. With a minority of families progress at this stage is, however, more problematic and broader issues need to be addressed with the family. Most commonly this slower progress happens in the context of a more complex individual and/or family presentation (Simic et al., 2016). This will tend to include higher levels of comorbidity, the young person may be emotionally dysregulated and the clinical picture may include episodes of self-harm and a binge/purge rather than a pure restricting presentation. At a relational level there is often increased negativity or hostility and insecure patterns of attachment (Jewell et al., 2016). Attachment and emotion focused family interventions (Diamond et al., 2014; Robinson et al., 2015) may be usefully employed to overcome the impasse that can develop at this stage.

Therapy moves to the third stage, Exploring issues of individual and family development, once weight restoration has largely been achieved or is well under way. This marks a move in therapy towards handing back age-appropriate responsibility to the patient and supporting parent/s to re-focus on their individual needs and those of other family members. The presence of an eating disorder, like any other serious and life-threatening condition, can cause great disruption to family organization (Eisler, 2005). These effects are explored and addressed during this phase of treatment. The move to Phase Three is generally also marked by a change in the nature of the therapeutic alliance. In the early stages of treatment the therapeutic alliance tends to be characterized by dependence on
the therapist, reinforced by the therapists’ expertise, willingness to give advice and share experiences of successful strategies that other families have employed. The family’s dependency on the therapist in the early stage of treatment parallels the temporary increased dependency of the young person on the parents that the therapy advocates. Just as at the later stage of therapy the parents are encouraged to start handing back responsibility to the young person (and the young person is encouraged to reassert their wish for independence), the therapy also needs to address the dependent relationship of the family on the therapist.

*Ending treatment, discussion of future plans and discharge* is the final phase of treatment. The therapist in Phase Four may encounter parental anxiety which is out of step with their child’s progress and therefore sessions in this phase include discussions about relapse prevention, tolerance of uncertainty, reviewing the course of recovery and some reflection on the expertise of parents and child to manage future difficulties.

**Multi-Family Therapy for Anorexia Nervosa (MFT-AN)**

MFT-AN draws on the four-phase treatment model in a group therapy for 5-7 seven families at one time. MFT-AN commences with an introductory afternoon comprising a lecture highlighting the psychological and physical consequences of starvation. Parents and young people then meet a ‘graduate family’ - a family who have previously been through the MFT-AN process – who share their experiences of the group. This meeting is followed by four intensive days of therapy with up to five follow-up days over the following six to nine months. The intensive nature of the treatment has been described as creating a ‘hothouse effect’ (Asen and Scholz, 2010) which makes it a powerful context for mutual learning, reducing the sense of isolation and stigma and increasing a sense of hope and the likelihood
of change. In addition to the program of therapeutic sessions (see Simic and Eisler, 2015, for details), families also have their meals and snacks together in communal areas, providing multiple opportunities for \textit{in-vivo} learning and support.

\textbf{Family therapy for bulimia nervosa (FT-BN)}

FT-BN differs somewhat from the FT-AN model. FT-BN sessions are far more likely to feature separated sessions, with the therapist meeting the young person and parent/s on their own at least early on in treatment. Greater attention is focused on building a therapeutic engagement between therapist and the young person in order to ensure that issues of motivation to change and building trust within the family can be addressed early on. Early sessions with parents provide psychoeducation, practical parenting skills and coaching with an emphasis on reducing criticism, blame and guilt. Validation skills are promoted as a way of supporting future change. Early separated interventions in FT-BN provide a foundation for later conjoint sessions, when issues of communication and collaboration can be enhanced to support behavioral change.

\textbf{Multi-family therapy for bulimia nervosa (MFT-BN)}

MFT-BN shares some similarities with MFT-AN, with similar benefits arising from the group process as described above. It provides a group learning opportunity but with sessions spaced weekly over four months, allowing for a slower process of change, and providing space for reflection and practice of the skills learned. Similarly to FT-BN, initial group meetings have more separate parallel sessions with young people and the parents. The shared context of the MFT group allows parents to feel that they are not alone in dealing with the frustrations and difficult behaviors of their child. Alongside systemic tasks
and exercises, elements of both Dialectical and Cognitive-Behavioral approaches are combined to address the unique needs of this patient group (Stewart et al., 2015).

**Efficacy research**

The eating disorders field provides a challenging context in which to conduct research. The relative rarity of AN means that multiple sites are often needed to recruit sufficient numbers into an RCT (Watson and Bulik, 2013). In the case of BN, recruitment to studies can also be problematic, since help-seeking is typically delayed by 4-5 years (Turnbull et al., 1996), meaning that many adolescents with BN are not presenting to services until adulthood. A further challenge for research is that the urgent medical risks presented by eating disorders, particularly AN, mean that providing a wait-list condition in any efficacy trial raises important ethical issues (Watson and Bulik, 2013). This means that treatments under investigation have to go up against other credible, *bona fide* treatments. This provides a sterner test of efficacy, but provides a methodological challenge in a field with few established treatments.

**Relative efficacy of FT-AN**

Three RCTs have investigated the efficacy of family therapy as compared with individual therapy for AN. The first of these, by Russell et al. (1987), was conducted at the Maudsley Hospital in London, and involved a sample of 57 participants with AN and 23 participants with BN. Participants included both adolescents and adults, and they were divided into four sub-groups: one group with BN, and three groups with AN grouped by duration of illness and age at onset of illness. These subgroups were then randomized to family or individual therapy. After one year of treatment, in the subgroup of AN participants
aged under 19 at illness onset and an illness duration of less than three years (n=21) 90% of those receiving family therapy achieved better categorical outcomes (based on weight, menstruation status and presence of bulimic behaviors) compared to 18% of those receiving individual therapy. These differences persisted at five-year follow-up (Eisler et al., 1997). The findings of this influential study are compromised by a number of limitations. Firstly, the lack of manualization of the treatments delivered means that the study would no longer meet criteria for inclusion as evidence for an empirically supported treatment (Lock, 2015). Secondly, the sample size for the group which showed superior efficacy of FT-AN is very small. Thirdly, the supportive individual therapy arm was not a bona fide therapy, since it lacked a theoretical model of change or clear focus for treatment.

Robin et al., (1999) conducted a small RCT (n=37) comparing family therapy and individual therapy in the treatment of adolescents (aged 11-20) with AN. The behavioral family systems therapy (BFST) used by Robin and colleagues had many similarities with the approach developed at the Maudsley (Robin et al., 1999; Eisler, Wallis and Dodge, 2015). The comparison treatment consisted of Ego-Oriented Individual Therapy (EOIT), a treatment derived from psychodynamic principles. The therapist saw adolescents on a weekly basis, and met with parents fortnightly, although unlike in the family intervention the parents were encouraged not to get directly involved in the management of mealtimes. BFST resulted in significantly greater increases in body mass index (BMI) at end of treatment (BFST mean change 4.7; EOIT mean change 2.3) and at one-year follow-up (BFST 5.5; EOIT 3.2). Approximately two thirds of the adolescents reached the target weights (set individually by their pediatrician) at end of treatment with no differences between the treatment arms. Significantly more girls in the BFST group (94%) than in EOIT (64.4%) had resumed menstruation by the end of treatment.
The largest efficacy trial comparing FT-AN and individual work was conducted by Lock et al. (2010). 121 adolescents with AN were randomized either to a manualized family therapy based on the Maudsley approach, referred to as Family Based Treatment (FBT), or to an individual therapy referred to as Adolescent Focused Therapy (AFT) a modification of EOIT used in Robin et al.’s (1999) study. At the end of treatment there was no statistical difference between the two treatments in terms of rates of full remission, although FBT was statistically superior in terms of partial remission, participants’ BMI percentile, and hospitalization rates. FBT was significantly superior in terms of rates of full remission at six-month (FBT = 40% vs. AFT = 18%) and twelve-month follow-up (FBT=49%; AFT=23%). Full remission was defined as a participant achieving a minimum of 95% expected body weight adjusted for sex, age and height, and scores within one standard deviation of community norms for self-reported eating pathology.

Relative efficacy of FT-BN

There have been three RCTs of FT-BN. Le Grange et al., (2007) compared family therapy (using a modification of their FBT manual) with supportive psychotherapy in a sample of 80 adolescents. FBT-BN emerged as significantly superior at end-of-treatment (39% binge-and-purge abstinence vs. 18% in the supportive therapy arm,). At six-month follow-up, abstinence rates had reduced in both groups (29% for FBT-BN vs. 10% for supportive therapy), but FBT-BN retained its superiority over supportive therapy. However, the assessment of treatment response was not blind to treatment condition, thus posing a risk of bias. A further test of the efficacy of FT-BN was provided by Schmidt et al., (2007), in a comparison with guided self-care CBT (n=85). In this study there were no significant differences between groups on the primary outcome, abstinence from binging and
purging, either at six months (end of treatment) (FT-BN 13%; CBT 19%), or at follow up at twelve months when abstinence rates stood at 41% for the FT-BN group, and 36% for the CBT group. However, the CBT group had an earlier reduction in binge frequency. Schmidt et al., (2007) highlight a low rate of recruitment because of some of the older adolescents’ unwillingness to involve their parents in the treatment, but adolescents who received FT-BN continued to make more improvements after the end of treatment than those seen on their own. Treatment costs were significantly lower for the CBT arm.

In the most recent RCT, Le Grange et al., (2015) compared FBT-BN, CBT and supportive psychotherapy in a sample of 130 adolescents. Recruitment rates were structured in such a way that more adolescents were randomized to FBT-BN (n=51) and CBT (n=58) than the supportive psychotherapy arm (n=20). Compared to CBT, abstinence rates were higher for FBT-BN at end of treatment (39% for FBT-BN vs. 20% for CBT) and at six-month follow-up (44% for FBT-BN vs. 25% for CBT). At one-year follow-up there were no differences between groups. Rates of hospitalization were significantly lower for FBT-BN. The risk of bias is reduced in this study as compared with the earlier Le Grange et al. (2007) study, due to the use of independent assessors.

**Efficacy trials comparing different forms of FT-AN**

Four studies have compared the efficacy of different forms of FT-AN. Le Grange et al. (1992) conducted a pilot RCT comparing conjoint FT-AN, in which family members were seen together for therapy, with separated FT-AN, in which adolescents and parents were seen separately by the same therapist. This small study (n=18) found no significant differences between the two forms of treatment. Eisler et al. (2000, 2007) conducted a larger RCT (n=40) comparing separated and conjoint FT-AN, replicating the finding that
overall neither was superior, either at end of treatment or at 5-year follow-up. The lack of
difference between the two treatment arms was important because it challenged the
prevailing theoretical assumptions of the model, since the findings further undermined the
idea that family members needed to be seen together, in order to intervene in family
patterns that might be illness-maintaining. Moreover, whilst at aggregate level there was no
difference between treatment arms, families rated as high in maternal criticism – an aspect
of the measure expressed emotion (Leff and Vaughn, 1985) – achieved significantly better
outcomes when offered separated FT-AN, a finding that was sustained at 5-year follow-up.

A recent RCT by Le Grange et al. (2016) (n=107) compared conjoint FBT with a
manualized form of separated FBT, which they name Parent-Focused Treatment (PFT). In
PFT, a nurse weighs the adolescent, assesses medical stability, and provides brief supportive
counselling, with the total individual contact time limited to 15 minutes. The adolescent’s
weight and any other pertinent information is then communicated to the therapist, who
then sees the parents for 50 minutes with a similar treatment focus to that used with the
whole family in FBT. Remission, defined as in the Lock et al. (2010) study, was higher in PFT
than in conjoint FBT at end-of-treatment (six months) (43% vs. 22%), but did not differ
statistically at 6- or 12-month follow-up. Lower parental expressed emotion predicted
higher rates of remission in both study arms, but in contrast to the Eisler et al. studies
(2000; 2007) treatment response in families with high expressed emotion did not differ
according to treatment. Whilst the study further undermines the idea that conjoint sessions
are a necessary ingredient of successful treatment, the findings also demonstrate the
benefits of conjoint treatment for certain patient groups. For instance, patients with higher
eating disorder-related obsessionality benefitted more from FT-AN than PFT, in keeping
with previous findings suggesting that conjoint treatment is more beneficial for this group of
patients as compared to separated treatment (Eisler et al., 2000) or individual work (Lock et al., 2010). Finally, Lock et al. (2005) have investigated dose of treatment, comparing outcomes of short (10 sessions over 6 months) vs. long forms (20 sessions over 12 months) of FBT. In this study of outpatient treatment (n= 86), there were no significant differences in outcomes between the two treatment arms. The study suggests that there are a number of treatment ‘responders’ for whom FBT works well within a short duration of time. For this group, increased contact hours appear to confer no additional benefit. However, non-intact families, and families where the young person had high levels of eating disorder-related obsessionality, benefitted significantly more from the longer form of treatment.

**Efficacy of FT-AN compared with generic family therapy approaches**

From a moderate common factors perspective, an obvious question to ask is whether the efficacy of FT-AN is due to specific ingredients of the model, or whether an alternative family therapy model might achieve equivalent outcomes. Thus far only one RCT, conducted by Agras et al. (2014), has been designed to help answer this question. This study of outpatient treatment (n = 164) compared two forms of manualized family therapy: FBT and Systemic Family Therapy (SyFT - Pote et al., 2001). The latter was a ‘generic’ form of family therapy, not specifically designed for treating adolescent AN. At end of treatment, there were no significant differences between treatments in terms of the primary outcome measures of percentage of ideal body weight and remission. However, participants receiving FBT gained weight faster early on in treatment, spent fewer days in hospital, and treatment costs were lower, suggesting overall advantages of FBT. The study therefore provides support for the view that therapists adhering to a FT-AN treatment manual will achieve superior results overall as compared to those utilizing a more generic approach.
Interpreting the findings of this study is complicated by two potential confounding variables: the eating disorder expertise of clinicians, and the role of specialist service contexts. Participants in both arms of the Agras et al. study were seen in specialist eating disorder services by therapists with an average of 6 years of experience of working with eating disorders. SyFT did not preclude a focus on the eating disorder, and given the treatment context and the therapists’ expertise, it is understandable that many families brought the discussion of the child’s eating disorder to therapy as a treatment priority. As a result, the two forms of family therapy investigated may have been more similar than it would otherwise seem (Blessitttt, Voulgari and Eisler, 2015).

These issues are illustrated by Godart et al.’s (2012) RCT conducted in France (n=60), which investigated whether family therapy improved outcomes in adolescents treated in hospital. The family therapy model used in the study was not FT-AN, but a more generic approach in which family dynamics were conceptualized as being involved in the development and maintenance of the eating disorder. Adolescents receiving family therapy achieved significantly better outcomes compared with those receiving treatment as usual. Consequently, we can surmise that family therapy can have a beneficial impact on outcome even if the FT-AN model is not used. However, given that again the study was conducted by therapists with significant eating disorders expertise in a specialist service, it does not follow that family therapists without eating disorders expertise, working in non-specialist services, can achieve equivalent results. We discuss the impact of service context in more detail later in this article.

Efficacy of MFT-AN and MFT-BN

Currently one RCT has been conducted examining the efficacy of MFT-AN (Eisler at al., submitted) demonstrating significantly improved categorical outcomes for families who
attended MFT-AN in addition to single family FT-AN. The potential benefit of MFT-AN is also indicated by several smaller studies. For instance, Salaminiou et al. (2015) report good or intermediate outcomes achieved by 6 months in 62% of the 30 families receiving MFT-AN. Gabel et al. (2014) in a case matched comparison report higher weight gain in adolescents receiving MFT-AN as compared to treatment as usual. Finally, Marzola et al. (2015) reports a brief treatment adaptation of MFT-AN, in which treatment was delivered over five full consecutive days. A follow-up of between 2-5 years of 74 patients showed that nearly 90% had achieved full or partial remission.

Research findings on the efficacy of MFT-BN are currently scarce. Stewart et al. (2015) have described the development of a MFT-BN group delivered in an outpatient context over 20 weeks in 1.5 hour long sessions. Preliminary findings reported in their paper (n=10) suggest that the group reduces eating pathology and depression, and increases adaptive coping skills. Thus MFT-BN currently shows promise, but further research is needed with larger samples and comparison groups.

**Findings on implementation and service context**

**Implementation Studies**

A small number of studies have looked at the implementation of FT-AN (see Couturier and Kimber (2015) for a recent review). Three small dissemination studies investigated whether clinicians who were unfamiliar with FT-AN could be trained in the approach over two days, following which their clinical outcomes were evaluated. In all three studies, clinical outcomes improved (Couturier et al., 2010; Tukiewicz et al., 2010; Loeb et al., 2007). Two larger retrospective studies conducted by Wallis et al. (2007) and Hughes et al. (2014) provide evidence of substantial reductions in rates of hospitalization, readmission
and the length of hospital admissions following the adoption of FT-AN by children’s hospitals in Sydney and Melbourne.

Service context as a possible common factor in the treatment of eating disorders

One of the main limitations of all the studies discussed above is that they do not take into account the potential impact of therapist eating disorders expertise and the role of specialist service context, which can be seen as common factors across all the treatment studies, conducted thus far in the adolescent eating disorder field.

The findings of a naturalistic study by House et al., (2012) sheds some light on these issues. The study compared all adolescents with an eating disorder in London over a two year period whose treatment followed different referral and treatment pathways that were determined by local commissioning arrangements that either allowed direct referral from primary care physicians to a specialist outpatient eating disorders service or followed a stepped care model with initial referrals going to the local generic child and adolescent mental health services (CAMHS). There were considerable differences between those who had access to the specialist care pathway compared to those whose initial referral was to generic CAMHS teams. The specialist pathway had 2-3 times higher case identification rates, two and a half times lower rates of hospital admissions during the first 12 months following referral and considerably greater consistency of care with one treatment provider. While this does not provide direct evidence for the effectiveness of the FT-AN (although this was the main treatment mode in the specialist services), it suggests that other factors are operating, such as referrers’ expectation, clinician confidence, the availability of a specialist eating disorders multidisciplinary team that is able to manage complex cases from the start,
and the mobilization of expectancy effects (Eisler, Wallis and Dodge, 2015) which RCTs do not account for but which appear to have a major impact on outcome.

A related finding comes from a study by Murray, Griffiths and Le Grange (2014). This small study (n=29) found that collegiate alliance – the perceived alliance between case-involved professionals – predicted drop-out from FBT, and was negatively correlated with eating pathology at end-of-treatment. One possible explanation for this could be that support from a likeminded multidisciplinary team may be important in FT-AN due to the emotional challenges that clinicians can experience in using this approach. Couturier et al. (2013b) conducted interviews with FBT therapists, from which it emerged that clinicians can feel anxious about certain therapeutic tasks, such as weighing the patient and completing family meals. Kosmerly et al. (2015) found that greater clinician anxiety was associated with therapists being less likely to weigh the client at the beginning of a session. Similarly, Robinson and Kosmerly (2015) found just under a third of FBT therapists in their study reported that clinicians’ own emotions negatively influenced treatment decisions. Thus one of the things which specialist teams may provide is an environment in which therapists can receive supervision and support, thereby strengthening treatment fidelity (Couturier and Kimber, 2015), but also attending to the emotional challenges which may lead to poorer clinical outcomes.

**Predictors, moderators and mediators of outcome**

**Predictors of outcome**

Short duration of illness and younger age both predict better outcomes in FT-AN (Eisler et al., 2000; Lock et al., 2006; Agras et al., 2014) as does a lower level of emaciation at the start of treatment (Eisler et al., 2000). Adolescents with lower levels of eating
disorder pathology had higher rates of recovery in studies by Eisler et al., (2000) and Agras et al., (2014). In the latter study, intact families and adolescents without binge-purge symptoms also fared better.

In RCTs for BN, the following have been found to predict higher rates of abstinence at end of treatment: being male, milder eating pathology, lower baseline depression scores and higher family cohesion (Le Grange et al., 2015; Le Grange, Crosby and Lock, 2008).

**Moderators**

Our understanding of moderators and mediators is necessarily limited to those variables that have been chosen for data collection in published RCTs. Unsurprisingly, adolescent eating pathology has been one of the most commonly used measures in the field. One particular aspect of eating pathology - eating-disorder related obsessionality - has frequently emerged as a moderator of treatment in FT-AN. For adolescents with high obsessionality, outcomes have been better when the family have been offered a longer course of treatment (Lock et al., 2006). Conjoint treatment also appears more helpful for this group of patients, as compared to individual therapy (Lock et al., 2010) or separated forms of FT-AN (Eisler et al., 2000; Le Grange et al., 2016). However, adolescents with high obsessionality benefitted less from FBT as compared with SyFT, a more generic manualized FT approach (Agras et al., 2014). Since adolescents with high obsessionality had higher baseline levels of eating pathology, depression, anxiety, and compensatory behaviors, the findings suggest that a broader treatment focus within family therapy may be beneficial for adolescents with high levels of co-morbidity.

Other findings on moderation are that adolescents with AN with binge-purge symptoms benefitted more from a longer course of FBT, as did non-intact families (Lock et
In BN, participants with lower family conflict and lower eating pathology scores responded better to FBT-BN compared to CBT (Le Grange et al., 2015; Le Grange, Crosby and Lock, 2008).

The possible role of EE as a moderator of treatment effectiveness in FT-AN has received particular attention over the years. Pilot studies of FT-AN found that a high level of EE (particularly maternal criticism) towards the adolescent was highly predictive of poor engagement in family therapy (Szmukler et al. 1985) and poor treatment outcome (Le Grange et al., 1992; Dare et al., 1995). As previously discussed, Eisler et al. (2007) found that high EE at baseline predicted poorer outcomes at five-year follow-up for those in conjoint family therapy. More recently, Rienecke et al. (2016) found that patients with mothers rated high in hostility by observers gained more weight in individual therapy than FBT. Furthermore, higher paternal criticism is associated with poorer outcomes regardless of treatment (Rienecke et al., 2016; Le Grange et al., 2016).

Forsberg et al. (2015) have suggested that the inconsistent findings on EE might reflect an underlying third variable. We have suggested elsewhere (Jewell et al., 2016) that a concept such as attachment, which overlaps theoretically and empirically with that of EE (Scott et al., 2011; Green et al., 2007), may help to explain the differential response to FT-AN. The ability to tolerate strong negative affects is a marker for secure attachment (Fonagy et al., 2012). Some parents and adolescents with insecure attachment representations may therefore have a lower threshold for tolerating the emotional arousal that is likely engendered in the early weeks of FT-AN. If adolescents and/or parents become highly emotionally aroused during family therapy sessions, they may be more likely to interpret material arising from the session - such as comments by family members - in negative terms, such as criticism or blame. This may also be the case during emotionally charged
interactions in the family home, particularly family mealtimes, making the task of helping
the young person increase their food intake more demanding. More fundamentally, the
meaning given to the parental task of managing their child’s eating may differ according to
family members’ attachment representations. Adolescents with secure attachment may be
more likely to accept parental supervision of their eating as an act of care. By contrast,
adolescents with a preoccupied attachment style (Shmueli-Goetz et al., 2008), who tend to
be caught up in past grievances, may ‘push back’ at such parental supervision experiencing
it not as caring but controlling and nagging. Similarly, parents who themselves have
unresolved attachment issues are more likely to lack confidence in themselves as parents
(Jones et al. 2015) and may respond to their child’s rejection of help by increasing their own
negativity. In such cases, conceptualizing the therapeutic task as ‘putting parents in control’
may in fact be counter-productive.

Potential mediators of treatment

Currently, no formal mediators have been identified in studies of eating disorder
focused family therapy. This is a serious barrier to improving treatment, since an
understanding of mediators could inform adaptations to the model, allowing for active
components to be intensified whilst redundant elements could be discarded (Kazdin and
Weisz, 1998).

What does the available evidence suggest might be a plausible mediator? Several
lines of research provide support for the importance of parental variables. In a study by
Ellison et al. (2012), clinicians rated parents on variables which are seen as key to change in
the Lock et al. (2001) treatment manual, such as parental control and unity, in a sample of
59 adolescents receiving FBT. Higher scores on these variables predicted adolescent weight
gain, with the strongest predictor being parental sense of being in control over AN. However, change in these variables across time was not assessed. By contrast, Robinson et al. (2013) found that parental self-efficacy increased over the course of FBT, and that increases in parental self-efficacy over treatment were correlated with reductions in adolescent eating pathology. From a clinician perspective, parental empowerment is also seen as key ingredient of FBT (Dimitropoulos et al., 2015), although this might be seen as somewhat circular in that empowerment is a key theme within the treatment model.

Two studies have illuminated change processes in MFT-AN using qualitative data. Engman-Bredvik et al. (2015) interviewed 12 parents, and reported that parents valued the role of the group in reducing parents’ perceptions of blame and stigma arising from having a child with AN. Parents also spoke of gaining increased competence in their parental roles, which was attributed to learning gained through meeting other parents. Similar themes emerged from Voriadiki et al.’s (2015) study of parents and adolescents who attended MFT-AN. Key themes included the importance of feeling less alone, and more hopeful about recovery, as a consequence of meeting other families. Adolescents reported becoming more accepting of the idea that they had a problem. These findings suggest that, at least in MFT-AN, change is happening rapidly, and that the development of hope – a crucial common factor – appears to be mobilized by the treatment context.

Indeed, one of the challenges for FT-AN research is that change can take place very rapidly when the approach is successful. Weight gain achieved by the fourth treatment session – usually one month after the start of treatment - is a predictor of good outcome at end-of-treatment (Doyle et al., 2010; Le Grange et al., 2014). Similarly, in FBT-BN, early change in binge eating and purging among adolescents is a good predictor of response at the end of treatment (Le Grange et al., 2008). This has important implications in the search
for treatment mediators. Since by definition a mediator must change value following the start of treatment (Kraemer et al., 2002), mediators may be operating very early in treatment. Thus a challenge for future research is both to conceptualize what changes, and to capture it empirically. Variables such as parental self-efficacy may operate as mediators in some families but not others, and it is plausible that change mechanisms may be different in families who respond early to treatment as compared with families where change takes longer to achieve. To explore these issues it will be necessary to conduct process studies using multiple time-points for data collection, particularly within the early phase of treatment. A further hypothesis is that the first assessment appointment may be a key precipitant of change for some families. If true, future research could measure expectancy effects by asking families to evaluate their views on attending the service, and hopes for recovery, prior to attending the first appointment.

**Therapeutic alliance**

The role of the therapeutic alliance in psychotherapy outcomes has perhaps received more attention than any other common factor. However, findings on alliance in FT-AN thus far do not tell a simple story partly because different measures have been used in different studies including both observational and self-report measures and partly because adolescent and parent alliance ratings appear to predict different aspects of outcome. Isserlin & Couturier (2012) using an observational measure of alliance found that parental alliance predicted engagement in treatment and early behavioral change, whereas adolescent alliance was positively linked to remission in eating disorder cognitions at the end of treatment. Similar findings using a different observational measure of alliance are reported by Pereira et al., (2006) although in this case adolescent alliance predicted both
psychological change and early weight gain, whereas parental alliance predicted engagement in treatment. Ellison et al., (2012) also report a positive association between parental alliance and post-treatment weight gain, and a negative association with dropout. Somewhat surprisingly the study found differences between maternal and paternal alliance ratings, with maternal alliance predicting greater weight gain and lower dropout, and paternal alliance predicting less weight gain.

Complex findings have also emerged from two studies of alliance using data from Lock et al.’s (2010) study of FBT vs. individual therapy. In the first study, observer-rated alliance predicted partial, although not full remission, at end-of-treatment, for both FBT and individual therapy (Forsberg et al., 2013). In a more recent study, Forsberg et al. (2014) found no association between parental alliance rated at session 4 and remission at end of treatment. Given the previously discussed finding that many adolescents achieve early weight gain, it is hard to unpick the temporal ordering of alliance and weight gain; it is certainly plausible that weight gain itself will have a positive impact on alliance and disentangling the impact of alliance on outcome may therefore be difficult.

The mixed findings on alliance and outcomes in FT-AN point to a potentially complex relationship between these variables. If our hypothesis that meaningful change in FT-AN may happen as early as the first assessment session, and that common factors such as hope(expectancy effects contribute to this, then perhaps the alliance to an individual clinician may need to be considered alongside of the impact of the service context on the family members’ views – particularly their trust or belief in the treatment center as a credible institution. A useful conceptualization is offered by Fonagy and Allison (2014), who have applied the notion of epistemic trust to the process of psychotherapy. Epistemic trust refers to an individual’s willingness to consider new knowledge from another person as
trustworthy, generalizable, and relevant to the self (Fonagy and Allison, 2014), and thus
draws attention to the relational context in which learning takes place (Landrum, Eaves and
Shafto, 2015).

The expert multidisciplinary team context in which the initial assessment takes place
may play a key role in enhancing the developing alliance with the therapist providing a safe
base for treatment and promoting the development of epistemic trust. The knowledge that
the team as a whole have of the nature of eating disorders and the way they impact family
life resonates with the family’s experiences and gives them a sense of being understood and
supported. This contributes to the perceived credibility and trustworthiness of the therapist
and supports the development of the therapeutic alliance. However, the development of
epistemic trust may not proceed in a straight-forward fashion in all cases; insecure
attachment and emotion regulation difficulties in particular may mitigate against the
development of such trust, at least in part due to the hypothesis proposed earlier in this
paper. If epistemic trust is a precondition for learning, then this may be a useful organizing
principle for treatment. Specific interventions, such as therapists coaching parents during
the family meal, may succeed or fail based on the extent to which trust has been developed.
For families who do not develop such trust early in treatment, it may be fruitful for the
therapist to consider alternative ways by which this may be achieved. Viewed from this
perspective, seeing parents and adolescents separately, or offering a multi-family therapy
group, provide new contexts for the development of epistemic trust and change.

Discussion
Eating disorder-focused family therapy has become firmly established as an empirically supported treatment, with evidence of superior efficacy relative to individual approaches in both AN and BN (Watson and Bulik, 2013; Couturier et al., 2013a; Le Grange et al., 2015). Nevertheless, caution is needed here. Whilst there is evidence of treatment efficacy from well-designed RCTs, to date there have been no replication studies conducted independently of model developers. As a result, it is possible that allegiance effects may account for the apparent superiority of family therapy. Moreover, other potentially viable treatments for adolescent anorexia nervosa such as CBT (Dalle Grave et al., 2013) have not been compared directly with FT-AN, and it is possible that they could be equally effective. It is important to note that even in comparisons of family versus individual approaches, the treatments often have a great deal in common with each other. Parental involvement has been described as a sine qua non of child and adolescent eating disorders treatment (Lask, 2000). In line with this view, most of the ‘individual’ treatments that have been studied included at least some collateral parent sessions. This means that parents still had the benefit of the expectancy effects that might accrue both from seeing a therapist who presents a clear model of treatment, and also through contact with other professionals such as pediatricians. Given that a treatment which excluded parents completely would be in many instances ethically problematic, and unacceptable to many families, it may be fruitless to frame the debate in terms of family and individual approaches being in opposition to each other. While from a research point of view it is perfectly legitimate to ask questions about the relative efficacy of each treatment, in clinical practice treatments will often be combined and family and individual therapy will then be seen as complimentary components of treatment.
In clinical settings outside of an RCT, children and adolescents will often receive individual time with therapists quite routinely. In FT-BN, individual sessions are built into the treatment model, which makes use of elements drawn from CBT. Similarly, in both MFT-AN and MFT-BN, group sessions for adolescents on their own make up a significant proportion of the therapeutic program. However, FT-AN currently lags behind in its conceptualization of when adolescents should be seen on their own, or what the therapeutic aims of individual therapy should be. For families who currently do not respond to treatment, adaptations to FT-AN, potentially involving separated adolescent and parent sessions, are in need of theoretical elaboration and empirical validation. Meanwhile, for adolescents with co-morbidities, the third stage of FT-AN (once weight restoration is well underway) may constitute an ideal time in which to add adjunctive treatments, such as CBT. For both adolescent AN and BN, the key questions for the field are: For whom does the current treatment work? What alternatives or additions should be offered for those who do not benefit? And can the treatment model be improved so that adolescents achieve higher rates of remission?

**Conclusion**

Based on the available evidence, we can conclude that the most successful treatments of child and adolescent eating disorders have the following general features in common; they:

- actively mobilize the family as a key treatment resource to promote changes in eating disorder behaviors early on in treatment;
- provide a coherent model of treatment (ideally operationalized in a treatment manual) that allows a degree of consistency in the way treatment is provided, while
providing enough flexibility to tailor the treatment to the specific needs of individual families;

- are delivered by clinicians with significant expertise in eating disorders, where possible within a specialist multidisciplinary team context; this provides a setting which engenders a sense of safety and trust in which adolescents and parents can take on new learning and new behaviors.

Although the existing treatment manuals specify the ingredients that should form the content and process of treatment, the empirical evidence to support our understanding of which ingredients are necessary and how they bring about change is still limited. Developing an understanding of the mechanisms of change and the factors that moderate how these operate in different individuals and different families is therefore a key priority for research.

As many have argued previously, improving our understanding of moderators and mediators signposts when and how treatments need to be modified, or what additional or alternative therapies might need to be offered when the standard treatment is not sufficient. They also, however, offer a new perspective on the debate about the role of common factors in therapy. Some common factors, such as temperament, may not be amenable to change but interact with the specific treatment factors and therefore act as moderators. Others, such as therapeutic alliance, may both interact with specific treatment factors and be amenable to change and can be understood as part of what mediates change. We suggest that a moderate common factors position – both seeking to understand the commonalities between treatments, and yet open to the idea that different treatment approaches can have distinctive effects, and may also interact in specific ways with different
common factors – offers a coherent base from which to begin to disentangle these important and complex issues.
References


