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EATING DISORDERS (AS KAPLAN, SECTION EDITOR)

Family Therapy for Adolescent Eating Disorders: An Update

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Abstract Family therapy has featured in the treatment of adolescent eating disorders for over 40 years, and the evolution of family therapy approaches, through a variety of theoretical lenses, has been significant. For instance, the recent dissemination of family-based treatment has resulted in a growing number of controlled empirical trials which continue to inform and augment treatment outcomes. In addition, a burgeoning number of alternate approaches to family therapy for eating disorders leave clinicians with more clinical considerations in practicing family therapy for eating disorders. In this paper, we aim to review the recent developments in family therapy for adolescent eating disorders, underscoring the impact on clinical practice and the likely implications for future research.

Keywords Family therapy · Eating disorders · Anorexia nervosa · Bulimia nervosa · Family-based treatment · Adolescence

Introduction

Eating disorders continue to rank amongst the most pernicious of all psychiatric disorders, posing continued and significant challenges for patients, families, clinicians, and researchers alike [1]. Whilst recent empirical advances have not delivered the precise etiological pathogenesis of eating disorders, evidence continues to demonstrate the multifactorial nature of eating disorders, spanning psychological, social, neurological and biological processes. Unfortunately, evidence-based treatment outcomes continue to fall short of the acceptable standards demonstrated in other psychopathologies [2]. In addition far from ideal treatment outcomes, the serious concomitant medical risks often make for a particularly treacherous illness course, inclusive of elevated mortality rates [1], greater likelihood of suicidality [3], and reduced quality of life [4].

However, with most eating disorders commonly first occurring in adolescence [5], and research findings consistently demonstrating that early intervention results in the most promising treatment outcomes [6], increasing research has been devoted to the treatment of adolescent eating disorders. Whilst relatively less researched than adult presentations, the historical tapestry of adolescent eating disorder treatments centrally implicates family therapy, with family therapists demonstrating a sustained interest in adolescent eating disorders for more than 40 years. During this period, the evolution of eating disorder-focused family therapy has been remarkable, spanning structural [7], systemic [8], strategic [9], narrative [10], solution-focussed [11], multi-family [12], and integrated [13••] approaches to family therapy.

Currently, advances in empirical methodology and the manualization of family therapy approaches to adolescent eating disorders have collectively allowed for an unprecedented level of scientific rigor in analysing family-based approaches to the treatment of adolescent eating disorders. In the context of this rapidly developing evidence-base, it is prudent to periodically take stock of developing research and reformulate the overall picture, allowing emerging research to inform clinical practice and future empirical endeavors. Thus, we aim to summarize existing family-based

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approaches to the treatment of adolescent eating disorders, paying particular attention to the integration of emerging research findings.

Current Treatment Approaches

Family-Based Treatment

In the context of anorexia nervosa (AN), family-based treatment (FBT) has emerged as the most promising treatment for medically stable adolescent presentations [13••]. This outpatient treatment may be characterized by an agnostic stance toward the pathogenesis of AN, alongside the overarching notion that parents themselves represent the primary and most influential resource in their child's recovery [14]. In essence, FBT posits that parents possess the necessary skills and resources to weight restore their child, but are frequently coerced away from their natural instincts by the overwhelming and anxiety-provoking presence of AN, which thus results in a level of accommodation to AN symptoms [15]. FBT is therefore initially focused on mobilizing parental strengths and resources in directly intervening into the array of behavioural symptoms of AN, in addition to ensuring nutritional rehabilitation and prompt weight restoration in their child. In light of the deleterious medical complications in adolescent AN, the necessary focus on weight restoration takes precedence over other areas of adolescent functioning, and parents are encouraged to exercise the necessary parental authority in ensuring that all ecological and individual maintaining factors of their child's AN are abated [13••]. Once weight restoration and symptom remission are advancing, less parental authority is typically required in facilitating non-pathological eating practices. At this time the adolescent may begin to demonstrate more autonomy over food and eating, gradually returning to age-appropriate adolescent functioning. This stage of treatment allows for a more central therapeutic focus on general adolescent and developmental issues which may have been arrested by the presence of AN [13••].

FBT has also been adapted to adolescent presentations of bulimia nervosa (BN), taking into account the core clinical similarities and subtle nuances in clinical presentations between AN and BN [16]. For instance, whilst acknowledging the similar over-evaluation of shape and weight and the tendency to under-report symptom severity in both AN and BN, FBT for BN also acknowledges the reduced ego-syntonicity of BN symptoms, and the inherent motivation to reduce distressing and typically shame-inducing symptoms such a bingeing and purging [17]. Thus, FBT for BN is theoretically similar to FBT for AN, sharing the sustained behavioural focus which drives treatment, in addition to the overarching belief that parents are a crucial resource in assisting symptom remission. However, by virtue of many adolescents with BN falling within a healthy weight range, the aim of parental involvement is not to restore their child's weight, but rather to help re-establish stable patterns of eating. As such, and due to the greater motivation observed in adolescents with BN, a more collaborative stance between adolescents and parents is adopted throughout FBT for BN, with both adolescents and parents discussing and establishing therapeutic goals.

Evidence-Base for FBT

In the context of AN, FBT has consistently demonstrated promising rates of symptom remission and weight restoration for adolescents of short illness duration. For instance, between 50-75 % of those undergoing treatment are typically weight-restored within 12 months of commencing treatment [18]. Further, FBT demonstrates swifter rates of weight restoration than other forms of adolescent-oriented treatment, which is important in mitigating the potential deleterious medical sequeale of AN, and reducing the cost of lengthy in-patient hospitalizations [19]. Furthermore, this weight restoration appears to be stable over time, with follow-ups at 6- and 12-months [20••] indicating greater rates of continued weight restoration when compared to other adolescent-focussed treatments. This is a hopeful finding when considering the high propensity for relapse in AN. Furthermore, recent analyses demonstrate that the core theoretical tenets of FBT are directly related to adolescent weight gain throughout FBT [21], and that perceived parental self-efficacy is predictive of adolescent outcomes throughout treatment [22]. In terms of cognitive symptom remission, those undergoing FBT appear more likely to experience remission of cognitive symptomatology, with up to 40 % being remitted of all cognitive symptomatology by the end of treatment [23]. Further, FBT has been delivered and investigated in several formats, with both conjoint and separated [24, 25], and 6- and 12-month [26, 27] formats offering significant symptom remission.

However, despite promising data continuing to emerge in support of FBT, it should be noted that a sizeable number of those undergoing FBT are not weight restored by the end of treatment [18]. It is also likely that a similar portion will not be remitted of all cognitive symptomatology [23]. The resolution of the incongruence between rates of physiological versus cognitive recovery therefore remains a crucial issue in developing treatment augmentations. Further, despite noted methodological limitations [20••], a recent Cochrane Review cautions that additional research is needed before concluding that FBT is the gold-standard treatment for adolescent AN, noting that further comparisons to other forms of family therapy are warranted [28].

In the context of BN, much fewer rigorously controlled trials have taken place. However, the extent evidence-base supports FBT as a helpful treatment for adolescent BN, noting favourable outcomes when compared to supportive

psychotherapy [29]. Further, FBT for BN demonstrates similar outcomes to cognitive-behavioural interventions, which is particularly important given the demonstrated efficacy of CBT for adult presentations of BN [30].

Recent Developments in FBT

In building upon the extent evidence-base, recent empirical developments have largely been oriented toward one of four key domains; (i) highlighting the mediators and moderators of FBT, (ii) highlighting the key therapeutic agent of change throughout treatment, (iii) developing augmentative measures to standard FBT and (iv) assisting in the dissemination of FBT.

Mediators and Moderators of Treatment

Mediator and moderator analyses may constitute a critical step in the development of augmentations to FBT, assisting in our understanding of for whom treatment and under what circumstances treatments have different effects, and how and why treatments exert their effects [31]. As such, the illumination of mediators and moderators of treatment has been outlined as a crucial endeavour in the ongoing evolution of FBT. However, to date only two randomized controlled trials have conducted mediator and moderator analyses in the context of adolescent eating disorders [26, 29, 32••], although further controlled trials have commented upon potential mediators and moderators of treatment.

Eating Disorder Severity Whilst body mass index (BMI) has long been established as a reliable predictor of treatment outcome across a range of eating disorder presentations, the cognitive severity of eating disorder presentations may be equally important in determining treatment outcome in FBT [33]. For instance, in one study, cognitive and behavioural symptomatology at baseline predicted outcome in FBT for BN [34]. In further exploring the role of cognitive symptomatology in adolescent AN, research has demonstrated that eating-related obsessionality moderates weight-related outcome, with presentations inclusive of higher eating-related obsessionality typically requiring lengthier treatment to make significant progress throughout FBT [26]. However, in the context of high eating-related obsessionality, FBT appears to offer more favourable treatment outcomes than other adolescent-focused treatments, perhaps due to the continued behavioural focus throughout FBT, perhaps lending itself to the dismantling of maintaining behaviours and generation of cognitive change [32••].

Psychiatric Comorbidity The presence of comorbid symptomatology throughout FBT has been found to have deleterious effects on overall treatment outcome. For instance, psychiatric comorbidity in FBT has been associated with greater rates of treatment dropout and poorer overall outcome in at least two studies [26, 32••]. In addition to patient comorbidity, the central focus on empowering parental involvement throughout treatment probably makes parental comorbidity influential throughout FBT, particularly if eating disordered symptomatology is present in parents [13••].

Early Treatment Response The first 3-6 weeks of treatment may be a particularly crucial window for those undergoing FBT, as well as individual approaches, with progress during this time reliably predicting overall treatment outcome, across presentations of both AN and BN. For instance, in FBT for adolescent BN, the early reduction of binge and purge episodes by session 6 reliably predicts overall treatment outcome [34]. Similarly, in presentations of adolescent AN, early progress (as indicated by gaining approximately 3 % in expected body weight by session 4) reliably indicates overall outcome in FBT [35, 36]. Thus, this window may afford a particular point at which to review treatment, and informed estimates as to the likely outcome of treatment may guide clinical thinking as to the potential implementation of augmentative strategies.

Therapeutic and Collegial Alliance Despite the challenging nature of FBT, and the continued amplification of parental responsibility throughout treatment, a strong therapeutic alliance between the FBT clinician and parents is often observed throughout FBT [37]. However, mixed findings have emerged in determining the extent to which outcome is impacted upon by therapeutic alliance. For instance, whilst therapeutic alliance is correlated with early treatment response and non-dropout [38], a strong therapeutic alliance alone is not sufficient to bring about full symptom remission, and shows no relationship to sustained illness remission by the end of treatment [37, 39].

In addition to investigating therapeutic alliance throughout FBT, recent research has examined the alliance between clinicians in co-managing FBT cases [40]. The multi-factorial nature of AN necessitates central involvement from specialist clinicians spanning a variety of professional boundaries, typically including psychologists, psychiatrists, and paediatricians. Recent research has contested that given the ongoing presence of widely differing beliefs as to the role of family throughout treatment, the propensity for splitting behaviours in adolescent eating disorders, and the high degree of anxiety necessarily elicited and mobilized throughout FBT, poor cohesion and inconsistency across the treatment team may result in the undermining of FBT 40. In support, preliminary evidence demonstrates that collegial alliance may discriminate between those who drop out and those who complete treatment, and is also significantly related to the remission of cognitive AN symptomatology [41]. Further, qualitative reports indicate that in the presence of poor collegial alliance, parents may likely align with treatment team members who do

not implore full parental involvement and mobilize elevated parental anxiety [42].

Thus, future endeavours may seek to augment the collegial relationship between those involved in co-managing patient care, employing systemic practices to help clinician's understanding of the complexities of the relational landscape in which they are conducting FBT [43]. Further, these findings also underscore the need to ensure that adequate and up-to-date knowledge of FBT is disseminated throughout the team prior to commencing treatment [40].

The Therapeutic Agent of Change Throughout Treatment

Whilst empirical research has demonstrated that the core theoretical tenets of FBT are related to weight-related outcomes in FBT [21], further adding to the burgeoning evidence-base in support of FBT as an effective therapy in the treatment of adolescent AN, little research has explicated *why* FBT is effective. Indeed, the agnosticism adopted throughout FBT may have precluded a thorough understanding of the precise agent(s) of change. In the absence of specific cognitive therapeutic components, a theoretical framework for understanding why cognitive change occurs may perhaps only be inferred by virtue of FBT's interventive strategies [44•]. To date, one proposed theory posits that FBT may exert its therapeutic agency according to the principles of exposure and response prevention, affording ecologically valid and parent-led exposure to a range of food-related fear cues, ensuring that compensatory or ritualistic behaviours are not permitted [44•]. Indeed, the naturalistic setting of FBT (the patient's home) may provide frequent access to a wide-range of food-related fear cues, and may also allow for generalization in other settings, such as school and friend's houses [44•].

An enhanced understanding of the process of cognitive symptom remission may assist in the development of augmentative measures in FBT. Indeed, treatment augmentations are typically best undertaken in light of findings which illuminate key therapeutic processes directly related to treatment outcome, and although key treatment components have been identified in one study [21], little empirical research has directly addressed the therapeutic processes operating throughout FBT. However, clinical modifications of FBT based on present theorizing have begun to surface. For instance, recent calls have advocated for an extension of phase 1 of FBT, which may allow for continued exposure to feared foods and volumes in the context of restored body weight (Murray et al., Towards a theoretical framework for augmenting family-based treatment for adolescent anorexia nervosa, manuscript in review). Continued exposure to feared foods and volumes, when not paired with the rapid weight restoration characteristic of early treatment, may assist in the generation of disconfirmatory cognitive evidence which runs incongruent to the fear of some food types and volumes (Murray et al., manuscript in review). However, whilst theorizing as to the agent(s) of change throughout FBT may result in theory-driven clinical modifications of FBT, controlled trials are ultimately necessary in assessing the efficacy of such modifications.

Dissemination Studies

Alongside the increasing numbers of outcome-based research investigating FBT, recent research has also begun to examine the dissemination of FBT, with a view to increasing the scope of FBT in clinical practice. To date, many barriers preventing therapist uptake of FBT have been identified, including FBT-specific treatment component barriers (i.e. therapist anxiety in conducting a meal session with the family, and allocating dietetic input to the parents rather than dieticians), systemic and organizational barriers (i.e. poor collegial support and understanding of FBT), interpersonal barriers (i.e. therapist discomfort in working with families), and illness-related barriers (i.e. adolescent AN being tough to treat). Not surprisingly this range of barriers impinges upon the extent to which FBT is implemented amongst clinicians (when clinically indicated), and may also result in treatment non-fidelity by clinicians [45]. Further research suggests that the importance of obtaining 'team buy-in' is particularly crucial to therapist uptake of FBT, and suggests that dissemination of primary research materials to all members of the treatment team (in addition to the treatment manual) may assist in generating collegial support for the provision of FBT [46]. However, research indexing the barriers to the uptake of family therapy amongst eating disorder practitioners is in its infancy, and further research may seek to investigate barriers across a range of clinical and professional contexts.

Augmentations to FBT

In light of this accumulating evidence-base, some augmentation to FBT has recently been proposed, which may further potentiate therapeutic action throughout treatment. For instance, in keeping with the core theoretical tenets of FBT, parent-to-parent consultations facilitated a meeting between 'graduated parents' and 'beginning parents' upon commencing treatment [47]. These authors have shown that such meetings may result in greater rates of weight gain, and is often viewed by parents as a helpful augmentation in reducing the isolation typically experienced in tackling their child's AN [47].

A further augmentation has involved the adoption of FBT principles in a therapist-guided internet chat-room forum, to assist families in rural communities [48]. Findings support the utility of therapist-facilitated internet chat-room forums as an adjunct to FBT, with parents reporting high satisfaction and a sense of being helped by the forum [48]. However, it is important to note that research has not yet comprehensively identified the optimal conditions for the implementation of

augmentative practices, with further research to this end being warranted.

Multi-Family Therapy

The concept of uniting several families in the treatment of eating disorders has been practiced in specialist treatment centres for over a decade, although large-scale controlled trials have been relatively sparse in comparison to FBT treatment studies [49]. Multi-family therapy (MFT) is typically undertaken with 6-8 families, with the collegial presence of other families facing AN been found to exert powerful de-stigmatizing and unifying effects for parents and adolescents alike. This coming together is particularly potent given the sense of isolation reported by most families with a child with AN [50]. MFT therapy borrows from traditional single-family therapy, and also includes the reflexive use of structural, systemic, narrative and psychodrama practices [12]. However, all therapeutic practices in-group meetings are undertaken in a group format, with all families observing and providing feedback for one another. Thus, the role of the therapist during MFT is largely oriented toward ensuring that families engage with one another, with this atmosphere of mutual learning and feedback creating an effective environment for mutual learning and shared experiences [12].

Whilst not yet rigorously evaluated, preliminary evidence suggests that MFT may be a promising alternative to FBT in the treatment of adolescent AN. For instance, MFT features strikingly low rates of treatment drop-out, and is reported by adolescents and parents to be beneficial [12]. In terms of symptom remission, the absence of large-scale trials precludes firm conclusions, although symptom reduction and early weight gain have been demonstrated [51]. Further research may seek to investigate the efficacy of MFT in controlled multi-site trials, and assess the dissemination of MFT beyond the treatment clinics in which it was developed.

Alternative Family Therapy Treatments for Eating Disorders

An innovative and integrated blend of FBT, systemic family therapy and parent coaching, conducted over a 1-week intensive period, recently demonstrated promising preliminary evidence in augmenting weight gain in adolescent AN [52]. Sessions comprised of conventional FBT sessions, carefully coordinated systemic interventions (planned so as not to contraindicate the core theoretical tenets of FBT), parent coaching sessions following family meals, psychoeducation sessions, in addition to distress tolerance training sessions for both adolescents and parents [52]. This program was initially designed to enable intensive treatment for rural families not living within range of specialist services, although it offers more global support for the notion of short-term therapy resulting in weight gain in some adolescents with AN and warrants further research in more controlled trials. Researchers at The University of Chicago have just received a grant from NEDA to do FBT via telemedicine, further helping take FBT to rural families who otherwise would not have access to specialist care.

Concluding Comments

The last decade has witnessed advances in the development of family-based therapies for adolescent eating disorders. In particular, family therapy for AN has undergone particularly extensive investigation, amassing a growing body of evidence supporting the efficacy of interventions which centrally implicates family involvement. Indeed, both the Academy of Eating Disorders and the National Institute for Clinical Excellence support centralized family involvement in the treatment of adolescent AN [53]. An increasing number of alternate pathways for familial involvement are being illuminated, although further research is needed in elucidating the precise nature of optimal family involvement, and the conditions under which various types of family involvement may be most efficacious.

For instance, a continued focus on highlighting the cognitive processes which take place throughout family therapy for eating disorders may be particularly helpful in assisting the continued evolution of family-based therapies. To this end, recent research has highlighted the potential imperfections in utilizing self-report measures to index psychopathology in the largely ego-syntonic AN [54], and ongoing endeavours may seek to employ parent-based reports alongside self-reports of adolescent psychopathology. Furthermore, little research has explored the efficacy of family-based therapy in paediatric obesity [55], which continues to escalate as a growing public health concern. However, in taking stock of recent developments in family therapy for eating disorders, the emerging evidence-base, and the increasing rate of controlled and exploratory research trials, it is likely that family therapy may continue to occupy a central role in the treatment of adolescent eating disorders.

Compliance with Ethics Guidelines

Conflict of Interest Stuart B. Murray declares that he has no conflict of interest.

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