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Incorporating Social Support in the Treatment of Anorexia Nervosa: Special Considerations for Older Adolescents and Young Adults

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Abstract

Currently, research support is strongest for family-based treatment (FBT) for the treatment of anorexia nervosa (AN) in adolescents. However, a strong evidence base for treatments for older adolescents and young adults with AN is lacking. Emphasizing social support in the treatment of AN may be beneficial for older adolescents and young adults with AN. This paper provides a brief review of the literature on FBT for adolescent AN and provides a case example of adolescent AN treated with FBT. We then discuss novel treatments that have incorporated social support for older adolescents and young adults with AN, such as modified FBT and couples-based interventions. We provide case studies of each of these novel treatment approaches as well. Additionally, this paper highlights and discusses developmental considerations and challenges in working with older adolescents and young adults with AN.

Keywords

Anorexia nervosa; eating disorders; adolescents; cognitive behavioral therapy; treatment

Overview of Anorexia Nervosa

Anorexia nervosa (AN) is a serious psychiatric illness characterized by engagement in behaviors (e.g., food restriction, purging, excessive exercise) that lead to severe weight loss or failure to gain appropriate weight, along with body image disturbance, overvaluation of shape and weight, and intense fear of becoming fat (American Psychiatric Association, 2013). According to the DSM-5, AN is characterized by two subtypes: individuals who engage in binge eating and/or purging (AN binge eating and purging subtype) and those who do not regularly binge eat and/or purge (AN restricting subtype; American Psychiatric Association, 2013). Onset of AN most commonly occurs in adolescents between ages 13 and 18 (Weaver & Liebman, 2011). The lifetime prevalence of AN is between 0.5% and 2% (Sigel, 2008; Smink, van Hoeken, & Hoek, 2013). In addition to significant psychosocial impairment (Birmingham & Treasure, 2010; Tiller et al., 1997) and high rates of co-

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occurring psychiatric diagnoses, including anxiety, mood, substance use, and personality disorders (Herpertz-Dahlmann, 2009; Herzog, Nussbaum, & Marmor, 1996; Herzog et al., 1992), AN is associated with the highest mortality of all mental disorders (Chesney, Goodwin, & Fazel, 2014; Harris & Barraclough, 1998). Death in this population commonly results from suicide or from the consequences of starvation (Arcelus, Mitchell, Wales, & Nielsen, 2011; Franko et al., 2013; Keshaviah et al., 2014; Papadopoulos, Ekbom, Brandt, & Ekselius, 2009; Preti, Rocchi, Sisti, Camboni, & Miotto, 2011). The myriad of medical sequelae associated with AN are alarming and include fluid and electrolyte imbalances (e.g., hypokalemia), bone loss (e.g., osteopenia and osteoporosis), cardiovascular complications (e.g., bradycardia, orthostatic hypotension), gastrointestinal problems (e.g., delayed gastric emptying), and endocrine problems (e.g., growth retardation; Golden et al., 2003).

AN often follows a prolonged course and is associated with high morbidity. Remission rates from AN have been found to vary widely (from 29% to 84%) depending on length of follow-up and type of study (Keel & Brown, 2010). Additionally, approximately a third of patients with AN transition to another type of eating disorder, such as bulimia nervosa or other specified or unspecified eating disorders (previously eating disorder not otherwise specified; Keel & Brown, 2010; Milos, Spindler, Schnyder, & Fairburn, 2005).

The exact etiology of AN is unclear, although most researchers and clinicians agree that genetic and biological predispositions interact with environmental and sociocultural influences and individual psychological traits (Klump, Bulik, Kaye, Treasure, & Tyson, 2009; Treasure, Claudino, & Zucker, 2010). AN runs in families (Lilenfeld et al., 1998; Strober, Freeman, Lampert, Diamond, & Kaye, 2000) and twin studies have resulted in heritability estimates between 28% and 74% (Trace, Baker, Penas-Lledo, & Bulik, 2013). While there may be familial risk factors and genetic vulnerabilities that predispose individuals to the development of AN, empirical literature does not support the premise that families directly cause AN (Le Grange, Lock, Loeb, & Nicholls, 2010). Personality traits such as negative emotionality, perfectionism, and negative urgency are risk factors for eating disorders (Culbert, Racine, & Klump, 2015). The primary sociocultural influence that has been studied as a risk factor for eating disorders is the thin beauty ideal, which encourages extreme dieting and weight control practices (Culbert, et al., 2015; Stice, 2002). Additionally, teasing and bullying focused on food, weight, and shape issues is also associated with an increased risk of developing disordered eating (Quick, McWilliams, & Byrd-Bredbenner, 2013).

Given the significant morbidity and mortality associated with AN, treatment is critical. Treatment of AN typically first focuses on weight regain and medical stabilization. In order to achieve these goals, individuals must go through a refeeding processes and decrease eating disorder behaviors, such as restricting, purging, and excessive exercise. Additional goals later in treatment include decreasing overemphasis on weight and shape and improving quality of life. Because of the ego syntonic nature of AN, whereby patients experience AN as being consistent with their identity, patients with AN often express ambivalence about treatment and low motivation to change (Vitousek, Daly, & Heiser, 1991). Engaging in weight control behaviors is reinforced through decreases in negative affect (Engel et al., 2013) and many individuals with AN experience the refeeding process as uncomfortable and

aversive. As a result of these challenges in the context of treatment, a large number of patients drop out of treatment prematurely. Therefore, much remains unknown about effectively treating AN.

While approaches such as medication, inpatient hospitalization, and residential treatment are used clinically, empirical support is lacking for these modalities (Bulik, Berkman, Brownley, Sedway, & Lohr, 2007). Outpatient individual and family therapies have received more support in the literature. A review of randomized clinical trials (RCTs) for AN suggests that, for adults, cognitive-behavioral therapy (CBT) may be more likely than other treatments to produce weight gain and reduce relapse rates (Bulik, et al., 2007). For adolescents with AN, the research support is strongest for family-based treatment (FBT; Lock, 2011), although one recent study comparing FBT to individual therapy found differences only at follow-up and not at the end of treatment (Lock et al., 2010). Overall, evidence to date does not support one specific treatment for both adolescent and adult AN. Modifications to existing treatments and the development of new treatments continue to be investigated in the field with the aim of finding more efficacious approaches to treating AN.

Recently, there has been an emphasis on the role of caregivers and social support systems in the treatment of AN. Individuals with AN are more likely to have poor interpersonal relationships, be more socially isolated (Arkell & Robinson, 2008), and lack social support (Tiller et al., 1997). Parents and partners of individuals with AN have been shown to experience significant distress and report that AN results in negative consequences for both the patient and the family (Whitney, Haigh, Weinman, & Treasure, 2007). Several studies have been aimed at providing education and reducing distress and expressed emotion in caregivers of AN patients (Goddard et al., 2011; Grover et al., 2011; Macdonald, Murray, Goddard, & Treasure, 2011; Sepulveda, Whitney, Hankins, & Treasure, 2008). Given the empirical evidence for FBT for adolescents with AN, as well as the research on the impact of AN on the individual's social support networks, emphasizing social support in the treatment for AN for both older adolescents and young adults may help optimize treatment outcomes. Additionally, given the high levels of distress experienced by parents and partners, engaging them in treatment may help reduce treatment dropout, as parents and partners may be highly motivated to receive support and encourage the patient to continue in treatment.

Family Therapy for Adolescent AN

Family therapy has been one of the most common treatments for adolescents with AN since the 1970s (Minuchin et al., 1975; Selvini Palazzoli, 1974). Initially, family therapy was recommended for the treatment of AN based on the premise that there were "interactional difficulties" between the patient and the family (Minuchin, Rosman, & Baker, 1978; Selvini Palazzoli, 1974). More recent conceptualizations of AN, however, indicate that families are not the cause (Le Grange, et al., 2010; Lock, 2010). While some family characteristics may influence compliance with and response to family therapy, such as high levels of expressed emotion (le Grange, Eisler, Dare, & Russell, 1992) or the family is non-intact (Lock, Agras, Bryson, & Kraemer, 2005), engaging and empowering families can be beneficial for treatment outcome (le Grange, 1999). Family therapy is considered the treatment of choice

for children and adolescents with AN based on clinical trials and outcome data (NICE, 2004).

Several different types of family therapy for adolescent AN have been studied. The first controlled efficacy trial was completed by a group of researchers at the Maudsley hospital, which compared family therapy (later manualized into FBT; Lock, Le Grange, Agras, & Dare, 2001) and individual supportive therapy (Russell, Szmukler, Dare, & Eisler, 1987). Ninety percent of adolescents in the family group had intermediate or good outcomes defined by the Morgan and Russell Scales for Anorexia Nervosa, which is based on body weight, menstrual cycles, and clinical dimensions, at the end of treatment compared to 18% in the individual group, while intermediate or good outcomes at follow-up were 90% and 55%, respectively. In another efficacy study, adolescents with AN were randomized to behavioral family systems therapy (BFST) or to ego-oriented individual therapy (EOIT; Robin et al., 1999). BFST initially required parents to take control over their child's disordered eating behaviors and weight gain efforts while EOIT focused on autonomy, problem-solving, and other developmental issues, without focusing on eating or weight (Robin, et al., 1999). Results of this study suggested that both BFST and EOIT were effective in terms of mood and eating-related family conflict; however, BFST was associated with more rapid weight restoration and return of menstruation in females (Robin, et al., 1999). Recently, a third efficacy study was completed to compare FBT to a manualized version of EOIT, called adolescent-focused therapy (AFT; Lock, et al., 2010). Results from this study found no differences at end of treatment; however, FBT had significantly higher remission rates, defined as reaching a minimum of 95% of ideal body weight and within one standard deviation of published normed means for global scores on the Eating Disorder Examination, at both follow-up periods (Lock, et al., 2010).

Studies have also been conducted to refine the framework of existing family therapies. Le Grange and colleagues (1992) compared conjoint family therapy (CFT) and separated family therapy (SFT) in an adolescent AN sample to examine the impact of high expressed emotion (EE) on the effectiveness of treatment. At end of treatment, weight gain criteria were met by 70% of participants in the CFT group and 90% of participants in the SFT group (le Grange, et al., 1992). In an extension of this study, results suggested that adolescents from families with high levels of parental EE had better outcome in SFT than in CFT (Eisler et al., 2000). In a five-year follow-up to their study, Eisler and colleagues (2007) found no significant difference between CFT and SFT. This study supported the theory that conjoint family therapy may be contraindicated in adolescents from families with high EE (Eisler, Simic, Russell, & Dare, 2007). Another question of interest has been the length of treatment needed. One trial demonstrated that FBT could be delivered effectively in a shorter dose (6 months) compared to a longer dose (12 months), with the exception of individuals from non-intact families and those with more elevated eating-related obsessions and compulsions, as these individuals did better in the 12-month dose of FBT (Lock, et al., 2005).

As described in the previous section, FBT currently has the strongest research base for the treatment of adolescents (Le Grange et al., 2012; Lock, et al., 2010). FBT was devised specifically for the unique needs of adolescents with AN (Lock, et al., 2001) and has been shown to have higher remission rates than adolescent-focused individual therapy at follow-

up (Lock, et al., 2010) and compared to systemic family therapy, FBT effects more rapid weight gain and results in shorter inpatient hospitalizations (Agras et al., 2014).

Overview of FBT

FBT is a manualized treatment aimed at both mobilizing and empowering the family as a key resource in managing eating disorder behaviors and promoting weight gain in adolescents with AN (Lock & le Grange, 2013; Lock, et al., 2001). FBT is divided into three phases. Phase I is focused on refeeding the patient, which is achieved through placing parents in charge of their child's eating and exercise. The theoretical rationale driving this approach is that normal adolescent development has been interrupted by the eating disorder and autonomy must be temporarily suspended so that weight restoration can be achieved. In addition, siblings of the patient are given a role distinct from their parents, which is to take on a supportive, nonjudgmental, ally-like role and to refrain from trying to manage the symptoms of the eating disorder. Phase II involves renegotiating parental management of the eating disorder. Typically, after the patient is able to consistently eat and regain weight in an independent and age-appropriate manner, parents will be supported in gradually returning control over eating and exercise back to the patient. The latter part of this treatment phase also begins to assist the family in addressing developmentally relevant concerns, including school, friends, and other activities. Phase III allows treatment to shift its focus away from the eating disorder and onto issues related to adolescent development (e.g., autonomy, social functioning, intimacy) and relapse prevention (Lock, et al., 2001). Throughout treatment, FBT helps families understand that eating disorders are serious psychiatric illnesses, that the family did not cause their child/sibling to develop the eating disorder, and they are well equipped to help their child recover (Lock, et al., 2001).

Case Example of FBT for Adolescent AN

Madeline, a Caucasian, 16-year old female, presented for treatment at the insistence of her parents. Her parents described Madeline as a kind, smart, and likeable teenager who did well in school and had a close circle of friends. Madeline denied any problems related to her eating or a fear of weight gain, stating only that she could not "be fat and still win at swim meets". Her parents, however, reported that Madeline had lost a significant amount of weight in the past six months and had been limiting the amount and type of food she would eat at home. They also learned that she was skipping lunch at school. However, her parents noticed that she still seemed to enjoy their weekly family pizza and movie night. Madeline had started eating half of a large pizza at the movie night as opposed to her more typical 2–3 slices. Her parents began ordering an extra pizza, as they were so relieved to see her eating. However, they began to be concerned that Madeline was purging because she would rush to the restroom after the meal and frequently the leftover pizza would be gone from the refrigerator the following morning.

Madeline was a competitive swimmer and reported that she hoped to swim competitively in college. At the time of her evaluation, Madeline was in her junior year of high school and college recruiters had begun to attend her swim meets to scout her as a potential scholarship recipient. She expressed immense pressure to continue to improve her swimming times as

well as maintain her grades in order to qualify for a college scholarship. Madeline believed that losing weight was essential to improving her athletic performance.

Her parents reported that they had tried persuading Madeline to eat, even using “no swimming” as a consequence for not eating; rather than improving, however, her dietary restriction, weight loss, and apparent binge eating and purging behaviors had worsened. Her parents reported that their home environment was increasingly tense and characterized by disagreements about Madeline’s eating patterns. Clinical interview and collateral information from parents indicated that Madeline met diagnostic criteria for anorexia nervosa, binge/purge subtype. Family-based treatment (FBT) was recommended and her parents agreed to participate. Madeline had one older brother who lived out of state for college. Although it is typically recommended that siblings attend treatment sessions, her brother was not able to attend regular treatment sessions. However, he did attend occasional family sessions when he was on break from college and at home visiting the family. In spite of the fact that Madeline’s brother could not attend regularly, the family agreed that FBT was nonetheless appropriate. In addition, the family and Madeline stated that Madeline and her brother maintained a close and supportive relationship through frequent social media contact and that she could continue to rely on him for support.

In the first phase of treatment, the seriousness of Madeline’s illness was conveyed and it was likened to a medical illness that was not her choice but that had taken over her and required urgent intervention. Her parents were charged with re-feeding Madeline to help her regain a healthy weight. Her parents were initially concerned about the intensity of the treatment and their busy work schedules. Madeline’s therapist reiterated concerns about the severity of Madeline’s illness and compared FBT treatment to chemotherapy treatment for an adolescent with cancer. This analogy proved helpful for Madeline’s parents who then understood that they needed to dedicate all available resources to Madeline’s treatment. For the next session, the parents were advised to bring a meal for the entire family, including the types and amounts of food that they agreed would be sufficient for refeeding their starving child. At the family meal that occurred at the second treatment session, the parents brought an array of foods that they believed would be appropriate to re-feed Madeline, along with a dessert that she used to like but no longer ate. Madeline first attempted to negotiate with her parents about the food they placed on her plate and then protested when they did not follow her wishes. The therapist assisted parents in problem-solving by facilitating their discussions and decision-making. The therapist also encouraged parents to keep from “negotiating” with Madeline’s eating disorder. Madeline’s parents agreed to remain united and repeat consistent statements (e.g., “You must eat at least ½ of the potatoes” or “Madeline, take one more bite”). At this family meal session, with the therapist’s help, the parents were successful in insisting that she take one more bite of each food item, including the dessert.

During Phase I, both parents rearranged their work and travel schedules to be home with Madeline as much as necessary as well as to eat lunch with her at school, which proved helpful for treatment. This schedule also allowed both parents to either take turns preparing or observing meals to ensure that they were consumed. In addition, it allowed the parents to support one another during times when Madeline was most resistant to eating. Madeline was also weighed at the start of every therapy session, which provided tangible information

about Madeline's progress. The process of weight regain involved considerable trial and error to ensure that Madeline's weight continued to trend upward. Over time, her parents became adept at increasing Madeline's caloric intake, usually through the addition of milkshakes, whenever they believed that it was necessary to ensure ongoing weight regain. At school, Madeline's parents would bring her a lunch and eat with her, which allowed them to ensure she was eating a sufficient amount of calories. To help her refrain from purging, at school parents would walk her to class after lunch and her teacher was instructed to not let her use the restroom during that class period. At home, Madeline's parents would sit with her for 45 minutes following meals to ensure that she did not engage in purging behavior and would play board games or cards to help her cope with her anxiety and distress. The family continued their weekly pizza and movie night, but her parents served Madeline 3 slices and threw out the leftovers to help her with her urges to binge eat.

In line with the empowerment stance integral to FBT, the parents discussed the issue of whether Madeline should stop swimming with the therapist. Rather than advising parents on what decision to make, a discussion was facilitated so that parents could examine each of their options. They determined that as long as Madeline demonstrated that she was eating and regaining weight in an increasingly independent manner, then she would be allowed to gradually return to the swim team during the middle of Phase II of treatment. Returning to swimming turned out to be a strong incentive for Madeline. In Phase II, reduced parental supervision was contingent on Madeline's eating choices and continued weight regain. Supervision gradually decreased as Madeline was able to take on more responsibility, including adding snacks to account for her increased energy expenditure upon returning to swimming and other activities. She was also allowed to spend more time with her friends. In Phase III, Madeline demonstrated all functional markers of remission, including not consciously restricting or attempting to lose weight. Madeline expressed resolve to maintain her weight at a healthy level, as weight maintenance allowed her to have her "old life back." Madeline acknowledged that her life after treatment was much better than when she was at her lowest weight. The final sessions focused on helping Madeline and her parents to identify warning signs and prevent and manage any relapses.

Developmental Considerations in FBT for Adolescent AN

A number of developmental issues are targeted in the context of FBT for adolescent AN. First, given the medical problems associated with weight loss and malnourishment in adolescents (Katzman, 2005), the initial treatment focus on weight gain through re-feeding is essential to target these physical sequelae. Sufficient weight gain is necessary to facilitate age-appropriate hormonal and physical development (e.g., the resumption, or in some cases onset, of puberty markers and sexual development). Weight restoration is also critical to facilitate recovery of cognitive functioning, including decision-making (Bodell et al., 2014). Given that semi-starvation is associated with profound changes in mood and cognitive patterns (Keys, Brozek, Henschel, Mickelsen, & Taylor, 1950), adequate nutritional intake can help promote mood stability and clearer thinking. Although Phase I of FBT supports the adolescent's "dependence" on parents for decisions about eating and exercise, this temporary limit in the adolescent's autonomy is necessary to promote weight restoration in the context of FBT and to unite the entire family against the eating disorder.

In contrast to Phase I of FBT, Phase II focuses on an age-appropriate shift toward allowing the adolescent more independence in decisions about eating and exercise. However, increased autonomy is a gradual process with ongoing monitoring to ensure that recovery continues (e.g., the adolescent is allowed to return to athletic activities as long as weight gain/maintenance is not compromised). By Phase III, FBT emphasizes increased independence in all respects including meals and activities, which are typically unsupervised. In addition, the adolescent is supported in resuming age-appropriate psychosocial activities including activities with peers and dating, as well as focusing on their identity outside of the eating disorder.

Developmental considerations are emphasized throughout the end of Phase III of FBT (and follow-up). First, while independence is encouraged, accountability is essential to prevent relapse. For example, the adolescent may still be expected to join the family for dinner, have weight monitored by their physician on a monthly basis, and attend regular meetings between parents and athletic coaches to ensure that these activities are not interfering with recovery. In addition, even adolescents with AN who fully recover need age appropriate structure and expectations given that they may still exhibit normal adolescent neuropsychological features (e.g., underestimating the likelihood of negative outcomes when encountering risks). The adolescent may also need additional parental support through Phase III and follow-up when challenging issues arise (e.g., peers who encourage dieting, struggles with ongoing body image disturbance, questions about sexual identity, etc.).

Throughout FBT, effective communication strategies are emphasized. In externalizing the eating disorder, the FBT therapist emphasizes the importance of the parent and adolescent collaborating “against” the AN. Although the initial focus is on empowering the parents to re-feed their adolescent, FBT provides tools for the parents to encourage eating with compassion and respect without resorting to threats or blaming. Discussing effective interpersonal communication techniques as well as clearly defined family roles (e.g., encouraging alliances between the adolescent with AN and her or his siblings) are also helpful in targeting developmental issues that can complicate recovery in FBT.

Novel Incorporations of Social Support in Treatment for Older Adolescents and Young Adults

Family-Based Therapy for Older Adolescents and Young Adults

As more young adults are living at home and receiving economic support from their families (Settersten & Ray, 2010), there may be more of a need for treatment providers to continue a family-based intervention for adolescents and young adults past the age of 18. Given the dearth of efficacious treatments for older adolescents and adults with AN (Berkman et al., 2006; Hay, 2013) and some support for family therapy with adults (Crisp et al., 1991; Dare, Eisler, Russell, Treasure, & Dodge, 2001; Eisler et al., 1997; Gowers, Norton, Halek, & Crisp, 1994; Russell, et al., 1987), adopting FBT for older adolescents and young adults with AN may be a logical extension. Developmental considerations in adapting FBT for this population might include the amount of control parents take over the refeeding process, as

well as the involvement of social support systems outside of just parents or primary caregivers.

Preliminary evidence supports the modification for FBT for use with young adults, who may or may not be living at home (Chen et al., 2010). Adaptations included allowing for some individual sessions, a more collaborative approach among the parents, young adult and therapist, the young adult having more choices in what and where they will eat, and flexibility in how the parents monitor meal and snack consumption. For example, in one case described by Chen and colleagues (2010), the parents prepared the meals, which the patient brought to their university to eat during the week, and the patient returned home on the weekends for continued monitoring. The preliminary data from this study supports the feasibility, acceptability, and efficacy of FBT for young adults (Chen, et al., 2010). This study also suggested that better outcomes might be achieved if the young adult is living at home during this type of family-based treatment. However, additional research is needed to replicate this finding.

A recent case series describing FBT for older adolescents and young adults (22 individuals, aged 18–26) allowed the individual with AN to nominate their supportive adult (Chen, Weissman, Yiu, & Zeffiro, 2014). In this context, “family-based therapy” can be broadened to include whoever the individual with AN determines to be an appropriate and willing support network. Although the vast majority (n = 20, 91%) of individuals in this case series elected to include their biological parents in treatment, one individual included a sister and one included a friend. As older adolescents may no longer be living at home or may be working on developing greater independence from parents, the therapist might need to be flexible with whom the individual with AN chooses to include as a support network in this modified version of FBT.

Case Example of FBT for an Older Adolescent/Young Adult

Nathan, a 19-year old, Caucasian male who had just begun his freshman year in college, returned home for the first time at the Thanksgiving break. Nathan’s parents noticed that he had lost a large amount of weight and brought their concerns to his attention. Nathan assured his parents that he had “just been stressed” trying to adjust to his challenging academic course load and that he would focus on “doing a better job” taking care of his health. However, during Nathan’s brief visit home two weeks later, his parents observed that his weight loss had continued and that he was visibly obsessive about eating only “clean” and healthy food. He also refused to eat “processed or refined” foods. They allowed Nathan to return to school, but with the expectation made clear that he improve his weight and eating by winter break.

Unfortunately, when Nathan returned home for winter break, he had lost more weight. Nathan’s parents explained that they could not let him return to school because he clearly needed help. Nathan was unhappy about his parents’ insistence that he take a medical leave of absence from college, but he acknowledged that eating in such a rigid way and focusing on his weight had become distressing and time-consuming. He agreed to be evaluated and discuss the issue of returning to college after hearing the treatment recommendations.

At intake, Nathan met criteria for anorexia nervosa restricting type, given that he did not engage in binge eating and/or purging behavior. Despite Nathan's age and having already moved to college, he and his parents, together with his 15-year old sister, agreed to participate in FBT. Although Nathan's health was the family's priority, they questioned what decisions to make about his return to college. Ultimately, the family agreed that if Nathan could arrange his schedule in a way that would allow him to be at home for portions of each week and attend treatment, he could remain in school. With support from Nathan's college, he was able to take a reduced class load and structure his spring semester classes in the middle of the week, which allowed him to be home Thursday night through Monday night. Treatment sessions were made to accommodate this schedule as well and the family proceeded with treatment.

In the first session, Nathan, his parents, and his sister all acknowledged the seriousness of Nathan's illness. They were tearful and expressed readiness to "step up to the plate", compile their resources, and support Nathan in his recovery. Despite Nathan's stated motivations, in the family meal, he struggled to eat some of the items that his parents provided, including white rice, a brownie, and 2% milk, foods which Nathan considered to be "of no nutritional value" and "unnecessary". His parents were warm and supportive, making statements about knowing how hard this is for him, but persisted in encouraging him to complete the meal. While Nathan's sister initially joined her parents in encouraging Nathan to eat, the therapist helped her to understand that it was her parents' responsibility to refeed him. Instead, Nathan's sister was encouraged to support him in other ways during meals, either by talking to him about school or funny television shows they had both been watching or to "hang out" with him at home or play card or other board games. Phase I was relatively uncomplicated and Nathan steadily regained weight (as measured at each therapy session), in part because he was highly motivated to return to school full time. During this phase, his parents would eat meals with him and his sister would provide distraction and support when he was distressed. In Phase II, his parents attempted to relinquish some control and autonomy back to Nathan. Nathan convinced his parents that it was important to socialize with his friends and be available to go out on Friday evenings, and he began returning home only Saturday evening through Monday morning. However, his weight decreased quickly when he increased the number of meals he was eating on his own. From discussions in treatment, it became clear that when Nathan was left on his own to decide what to eat without guidance from parents, he struggled to choose more calorically dense foods. Their therapist facilitated a conversation to help the family problem-solve this issue and his parents suggested slowing down the transition from parental feeding to independent eating and returning to only being on campus three nights a week. Nathan repeatedly asked his parents, "What about college? What about making friends?" as he was adamant about wanting to return to living on campus full-time as soon as possible. He reported that he felt embarrassed about not being at school full-time and was suffering socially. The family discussed this decision at length, balancing the importance of Nathan achieving a full recovery with his desire to have a "normal" college experience. His parents were so concerned about Nathan that they suggested withdrawing him from the remainder of the semester to focus on recovery and to return to school in the fall. However, Nathan was adamant that he would rather be at school part time and socialize with his friends than

withdraw completely from school. He stated that remaining in school was his primary motivator for recovery and worried that if he was at home alone, he would become depressed and have more difficulty with eating and weight regain. In order to seek additional support for meals at school, Nathan agreed to tell his friend John about his eating disorder. John was supportive of Nathan's struggles and was able to sit with Nathan during meals when their schedules overlapped. Ultimately, the family agreed that as long as Nathan continued to show them that he was making progress and staying on track in eating and weight regain, he would be able to remain in school. Nathan reported that the additional support of John was helpful and his weekly weighings at therapy sessions revealed steady weight gain. Toward the end of Phase II, Nathan had started staying on campus four nights a week, frequently eating with John, but still returning home on the weekends. This arrangement allowed Nathan to have continued practice at eating away from home and socialize with his peers one extra evening a week, while also getting support from his family.

However, as Nathan's stress level increased at the end of the semester when he began studying for exams, he again struggled to maintain his weight. Although he stayed in school and completed the semester, during the last month of school he lost five pounds. Nathan acknowledged that he still had difficulty eating on his own during periods of high stress. Although Nathan had planned to move to a nearby city for an internship over the summer, he and his family decided that he was struggling too much with his eating disorder to be able to cope with the stress of living in a new city and a high-pressured internship. Nathan stated that he was extremely disappointed, as he had planned to sublet an apartment with several friends and felt left out. However, he stated that his primary priority was being able to return to school in the fall and knew that he could only do so if he returned home to remain in treatment over the summer. With his parents' support, he decided to pursue a part-time volunteer position close to his home. By the end of the summer, Nathan was able to eat independently for most meals and his weight had stabilized in a healthy range. His parents agreed to allow him to spend one night a week at his friends' apartment to socialize as long as his weight remained stable, he ate full meals consistently, and he ate meals at home the other six days of the week. Phase III was brief and occurred when Nathan returned to school fulltime in the fall. During those sessions, Nathan and his family focused on reviewing his progress and devising strategies to prevent relapse.

Developmental Considerations in FBT for Older Adolescents and Young Adults

Several developmental issues need to be considered in conducting FBT that is adapted for young adults and adolescents over the age of 18. First, in contrast to the treatment of younger adolescents, older adolescents and young adults must provide consent for parent and significant other participation. Because treatment is voluntary, the individual with AN needs to present at least minimal motivation (even with prominent ambivalence) for addressing weight regain and eating behavior. In addition, the clinician's contact with parents and significant others outside of conjoint sessions is typically more limited. Discussing issues of confidentiality and communication in the first family session is helpful in establishing guidelines and collaboration among the clinician, patient, and family/ significant others.

A second developmental consideration is age-related autonomy and the fact that the older adolescent/young adult with AN may not be living at home. As described in the case example above, having the older adolescent/young adult move home, even temporarily, may facilitate a better outcome in this type of modified FBT (Chen, et al., 2010). In addition, a leave of absence from school or work may be necessary for successful treatment. Alternatively, the older adolescent/young adult may opt to live independently and eat meals and snacks with family members, friends, and significant others. Technology-based interactions (e.g., Skype, Facetime) during meals eaten in different locations can also be used. As in FBT for younger adolescents, the eventual goal is age-appropriate independence once the eating disorder symptoms have remitted. With older adolescents and young adults, emancipation with ongoing support and accountability (e.g., family meals once a week, continued therapy sessions) may be an appropriate long-term goal. Similarly, treatment should focus on facilitating age-appropriate psychosexual and psychosocial development. As treatment progresses, an increasing emphasis on the individual with AN's identity outside of the eating disorder and social interactions, including dating and sexual orientation, can help redirect the patient on a developmental trajectory that is often interrupted by eating disorder symptoms. In this context, individual sessions can be especially helpful in providing a forum for discussing adolescent and young adult developmental topics independent of family members. In particular, addressing the impact of eating disorder symptoms interpersonally including residual body image disturbance in the context of a sexual relationship, unplanned social eating with peers, and discussions of weight in social settings can be useful both developmentally and in potentially targeting precipitants of relapse.

Couple-Based Interventions for Young Adults with AN

While modifying FBT may be useful for some older adolescents and young adults, relying on parental involvement may not be feasible or appropriate for all individuals with AN. Indeed, a substantial percentage of adults presenting for treatment for AN, including young adults, are in committed relationships. Additionally, being in a relationship with a supportive partner is commonly cited as contributing to recovery (Tozzi, Sullivan, Fear, McKenzie, & Bulik, 2003). However, although a supportive relationship may help support recovery, some individuals with AN may experience their relationship as a stressor that exacerbates eating disorder symptoms rather than a support (Bulik, Baucom, Kirby, & Pisetsky, 2011; Woodside, Shekter-Wolfson, Brandes, & Lackstrom, 1993). Specifically, studies indicate that adults with AN experience increased relationship distress, problems with communication, and sexual concerns (Hartmann, Zeeck, & Barrett, 2010; Pinheiro et al., 2009; Van den Broucke, Vandereycken, & Vertommen, 1995a, 1995b). Given that family therapy has been shown to be effective for adolescent and young adult AN and that individuals with AN report relationships to be helpful as well as potentially distressing, intervening on the couple level may be a beneficial treatment approach for young adults in committed relationships.

Case Example for a Couple-Based Intervention for a Young Adult

Suzanne, a 24-year old Caucasian female, had been living with her boyfriend Todd for two years. Todd recently began noticing that Suzanne seemed to be avoiding eating meals with him. At the beginning of their relationship, they frequently cooked together and enjoyed

trying new restaurants for date nights. Several times over the past few months, Suzanne stated that she had already eaten dinner at a work event. However, Todd noticed that on the evenings Suzanne stated that she had already eaten, she appeared to be returning from the gym rather than a work event. For their anniversary, Todd decided to take Suzanne to a restaurant they used to frequent but had not been to in many months. Suzanne appeared anxious throughout the meal. Although her favorite meal at this restaurant had always been a pasta dish, Suzanne ordered a salad. Early in their relationship, Suzanne alluded to having "food issues" in high school, but never elaborated. Todd began to wonder if Suzanne's eating disorder was returning. Todd noticed that she had lost weight, but Suzanne had begun wearing baggy clothing and changing clothes in the bathroom rather than their bedroom. Suzanne and Todd had not been sexually intimate with each other in over two months. Todd expressed his concern to Suzanne, but she became angry and told him to "mind his own business" and "stop trying to parent me." Todd began avoiding mentioning food. He allowed Suzanne to choose all of their meals, thinking that if he did that, at least she would eat. After an episode when Suzanne fainted at work, she agreed to be evaluated, although she was reluctant about receiving treatment.

At intake, Suzanne met criteria for anorexia nervosa, restricting type. Suzanne eventually said that she was willing to enter individual treatment, but expressed a concern about being able to recover on her own. She stated that since she moved away from her hometown, Todd was now her primary support. She informed her parents that she was re-entering treatment, but decided that it would be most helpful to have Todd be an active element of her treatment rather than her parents. Suzanne's individual therapist recommended that Suzanne and Todd also see a couples' therapist who was part of the treatment center's multi-disciplinary team. In the first couple's session, Suzanne opened up to Todd about her previous eating disorder history and treatment. Suzanne stated that FBT had been helpful for her as an adolescent, but she worried that she would resent Todd if he took on a "parental" role in dictating what and when she ate. Suzanne stated that it was helpful for her to eat with Todd, but she did not want him "policing" her meals as her parents had during FBT. Together, they agreed that Suzanne would create a meal plan with her dietician and share this plan with Todd. Todd agreed to help with the shopping and meal preparation initially, as these tasks were particularly difficult for Suzanne. Following this first session, Suzanne struggled to consume all of the food included in her meal plan. During the next session, Suzanne acknowledged that Todd was trying to be supportive at meals, but noted that his "cheerleader comments" drew too much attention to the food she was eating. Suzanne shared with Todd a list of distraction skills that she had developed in her individual therapy to help her endure challenging meals. Todd agreed to try some of these skills, such as playing word games during meals. Throughout the course of treatment, meals together at home became more comfortable and Suzanne was able to follow her meal plan. During their couple's sessions, Suzanne and Todd together planned additional challenges, such as eating out at a restaurant as a couple or with friends. As Suzanne began having more success with eating the full amount specified on her meal plan, Todd became less involved in Suzanne's meal preparation. They continued to eat dinner together, but Suzanne transitioned back to shopping and preparing her lunch and dinner independent of Todd. During their final couple's sessions, Suzanne and Todd began focusing on their relationship. Their therapist

helped them develop more effective communication skills, such as engaging in reflective listening during conversations. Both Suzanne and Todd had noted that they felt disconnected from one another, both emotionally and physically. They agreed to spend more time engaging in activities that they both enjoyed together and in order to reduce the centrality of food in their relationship.

Uniting Couples (in the treatment of) Anorexia Nervosa (UCAN)

Although couples therapy for AN has long been recommended (Woodside, et al., 1993), there have been no empirically supported forms of couples-based interventions for adult AN. Uniting Couples (in the treatment of) Anorexia Nervosa (UCAN) was developed to fill this gap in the treatment literature and include the partner in an appropriate way in the treatment of adult AN (Bulik, Baucom, & Kirby, 2012; Bulik, et al., 2011). UCAN was drawn from cognitive-behavioral couples therapy, the couples intervention with the strongest research base (Epstein & Baucom, 2002). The overarching framework for UCAN is that, although one member of the couple has AN, the AN exists in both an interpersonal and a social context (Bulik, et al., 2011). The social environment in which a couple lives can contribute to the improvement, maintenance, or worsening of the individual's AN (Bulik, et al., 2011). While partners want to help, they often lack the knowledge or skills to help effectively. Unfortunately, even well-meaning partners may unknowingly contribute to the maintenance of a patient's AN. For example, a partner might prepare the low calorie meals that are preferred by the individual with AN in order to reduce the distress at mealtime, despite this behavior potentially helping the individual maintain a low weight and avoidance of feared foods. As a result, UCAN helps the couple work as a team to address the AN.

UCAN consists of four phases (Bulik, et al., 2011). In Phase 1, entitled a Foundation for Later Work, the couple and therapist work together on understanding the couple's experience of AN, learning about AN and the recovery process, and building a foundation of effective communication skills. In Phase 2, Addressing Anorexia Nervosa Within a Couples Context, the target is the relationship and interactions around the AN including eating behaviors. The goal of this phase is to create a support system for the individual with AN as s/he addresses the eating disorder. Using the communication skills developed in Phase 1, the couple develops ways of managing and addressing the eating disorder more effectively collaboratively. Topics during this phase include ways of reducing specific eating disorder behaviors, eating together as a couple both within and outside the home, body image improvement, and the couple's physical/sexual relationship. In Phase 3, Relapse Prevention and Termination, the therapist provides psychoeducation about recovery and relapse prevention, and the couple is guided to think about and discuss high-risk situations, with a goal of preventing relapse. The therapist encourages the couple to think about how they will continue to work together as a team against the AN after termination.

It is important to note that UCAN differs from FBT in a few notable ways. Unlike FBT, UCAN is designed to augment the individual's multi-disciplinary treatment. Whereas the FBT therapist is the only therapist working with the patient, the UCAN therapist is a separate psychotherapy provider from the patient's individual therapist. Further, partners are not expected to monitor the individual with AN's eating habits or weight. Rather, couples

work collaboratively with the therapist to identify the appropriate stance of the partner with reference to eating and weight restoration given the couples unique relationship. UCAN was designed to be developmentally appropriate for adults and avoid a power imbalance that could arise from a partner assuming a "parenting" role (Bulik, et al., 2011). Preliminary evidence supports the use of UCAN for adults with AN who are in a committed relationship (Bulik & Baucom, 2012) and UCAN is currently undergoing more extensive evaluation.

Developmental Considerations for Couple-Based Interventions for Young Adults with AN

When using a couples-based approach for the treatment of young adult AN, there are several developmental issues that need to be considered. The first is identifying an appropriate role for the partner to take in the treatment. While having parents or other caregivers assume the responsibility of refeeding is developmentally appropriate for adolescents, this role may not be advised within the context of a romantic relationship as it may introduce a power imbalance. The therapist and the couple should together identify the role that will be most appropriate given the couple's context (Bulik, et al., 2011). While it may be helpful to have the partner be aware of the individual with AN's meal plan and be supportive during shared meals, the individual with AN is likely able to retain autonomy over choosing foods to eat with the assistance of the treatment team.

Additionally, the therapist may find it challenging to balance addressing the eating disorder with addressing broader relationship distress (Dick, Renes, Morotti, & Strange, 2013). Couples in which one partner has an eating disorder tend to avoid conflict (Hartmann, et al., 2010) and have trouble with communication (Van den Broucke, et al., 1995a, 1995b). While addressing overarching communication may be helpful for couples, the therapist needs to help the couple stay focused on the goal of this particular treatment, which is to first address the eating disorder. A couples-based intervention can still be implemented even in a relationship with a high amount of distress and may be helpful in addressing both the AN and the relationship functioning (Bulik, et al., 2011).

The third developmental consideration for treatment of young adults with AN is addressing sexual functioning. Individuals with AN typically have disturbances in body image as well as high levels of body dissatisfaction. A large portion of individuals with AN report difficulties in their sexual relationships (Raboch & Faltus, 1991), decreased sexual desire, and increased sexual anxiety (Pinheiro, et al., 2009). Sexual functioning is a significant part of intimate relationships and important to address in a couples context. Couples may be reluctant to raise this issue, particularly given the high levels of avoidance that are often observed. Therefore, it is necessary for the therapist to be comfortable and willing to address sexual functioning as part of a couples-based approach and to collaborate with the couple in addressing issues of sexuality.

Conclusions

AN is a serious illness that requires specialized treatment; however, there is a dearth of effective treatments for this disorder. FBT has a strong evidence-base in the contemporary literature for adolescents with AN (Lock, 2010). Although there are several promising treatments for adults, the limitations of existing treatments remain vast. Older adolescents

and young adults with AN are a particularly unique population for whom tailored treatments are just now beginning to emerge.

Because older adolescents and young adults are undergoing significant changes related to autonomy, treating AN among those in these developmental stages requires special consideration. This age group may be moving away from home for the first time, facing responsibility for grocery shopping and independent meal preparation, developing stronger relationships with peers and romantic partners while lessening their dependence on families, and making more decisions for themselves without the need for approval or support from their parents. An additional consideration in treating AN in this age range in contrast to children and younger adolescents is autonomy. Legally, individuals with AN who are 18 have the option to participate or refuse treatment and include or exclude family and significant others.

Modifications to existing treatments and the development of newer treatments for older adolescents and young adults have taken these important considerations into account. Preliminary evidence suggests that incorporating greater independence into FBT by offering individual sessions, allowing more food and eating choice, and providing more collaborative therapeutic approach may be beneficial for older adolescents and young adults. UCAN, on the other hand, provides an augmentation to traditional multi-disciplinary treatment by involving significant others in a meaningful way to facilitate recovery from AN. UCAN helps partners to collaborate with each other and identify appropriate and helpful roles for the healthy partner to support the individual with AN who is working toward recovery.

Much remains unknown about how to effectively treat older adolescents and young adults with AN, although more data are beginning to emerge on this topic. Future research on the development of effective treatments for AN should examine ways to accommodate and adjust for the unique developmental changes characteristic of this population. Findings from such investigations may provide us with a better understanding of how to optimize the treatment of older adolescents and young adults who are diagnosed with AN.

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