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A Case Series of Family-Based Therapy for Weight Restoration in Young Adults with Anorexia Nervosa

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Abstract

This case series aims to examine the preliminary efficacy, acceptability and feasibility of Family-Based Treatment to promote weight restoration in young adults with anorexia nervosa. Four young adults with sub/threshold anorexia nervosa were provided 11–20 sessions of Family-Based Treatment for young adults with pre-, post- and follow-up assessments. At post- and follow-up, 3/4 participants were in the normal weight range, 3/4 were in the non-clinical range on the Eating Disorders Examination and reported being not/mildly depressed. At post-treatment, 2/4 were in the good psychosocial functioning range and by follow-up, 3/4 were in this range. These results suggest that Family-Based Treatment for young adults with anorexia nervosa is a promising treatment.

Keywords

Family-based therapy; Anorexia; Young adults

There are few empirically supported treatments efficacious for anorexia nervosa. The first randomized controlled trial to evaluate psychotherapies for anorexia nervosa, has shown family therapy to be efficacious for adolescents with anorexia nervosa (Russell et al. 1987). This relatively small-scale trial demonstrated post-treatment (one year) and 5-year follow-up efficacy of family therapy for this patient population, i.e., adolescents with early onset anorexia nervosa and short illness duration (Subgroup 1). A significantly greater proportion of these young patients achieved *good* or *intermediate* outcome (good = >85% ideal body plus return of menses; intermediate outcome = >85% ideal body weight but irregular or no menses) in family therapy (9 out of 10 patients) compared to individual supportive psychotherapy (2 out of 11 patients). Moreover, significantly fewer adolescents dropped out of family therapy compared to individual supportive psychotherapy (10 vs. 64%). Five years after treatment, *good* outcome continued in family therapy compared to individual supportive psychotherapy. For Subgroup 2, i.e., those patients with early onset anorexia nervosa but longer duration of illness, individual supportive psychotherapy and family therapy were equivalent at the end of treatment and at 5-year follow-up. For patients in Subgroup 3, i.e., individuals with late onset anorexia nervosa (mean age of 25 years) there was no difference in outcome between treatments at post-treatment and follow-up although there was greater improvement in mental status and psychosexual adjustment for individual supportive psychotherapy compared to family therapy (Eisler et al. 1997). Overall, Russell et al. (1987) study suggested that family therapy may be better matched for younger adolescents.

More than a decade later, in recent studies of family-based treatment for anorexia nervosa, age does not appear to predict treatment-outcome (Eisler et al. 2000; Le Grange et al. 2004; Lock et al. 2005; Robin et al. 1994), i.e., older adolescents appear to do as well as younger adolescents. However, across different psychosocial treatments (e.g., cognitive-behavior therapy, interpersonal psychotherapy), older age is a typical predictor of poor outcome for anorexia nervosa (Steinhausen 2002). The absence of findings that age predicts or moderates outcome in family-based treatment, and the lack of any specific evaluation of this treatment with young adults suggest that testing family-based treatment in this age group is warranted.

In addition, young adults today are quite similar to older adolescents in their continued dependence on their families. Unlike previous generations, nearly two-thirds of young adults in their early 20s receive economic support from their parents (Gutmann et al. 2002). It is surprising that family-based treatment has not systematically been used with young adults, especially given the challenges in engaging and maintaining adults with anorexia nervosa in treatment (Yelowitz 2007). This is seen clearly in adult anorexia nervosa with the largest published study reporting a dropout rate of 60% (Halmi et al. 2005).

The aim of the present study is to assess the preliminary efficacy of family-based treatment to promote weight restoration in a small series of young adults with anorexia nervosa. The

secondary aim is to assess the acceptability and feasibility of this treatment with this population, given that it was originally designed for adolescents.

Method

Participants

The case series involved four young adults with full or subthreshold anorexia nervosa (ages 18, 19, 20, and 21 years old) (see Table 1 for a description of these cases).

Three were female and one was male (Patient 2). Although initial inquiries regarding treatment were made by parents, each young adult was required to complete an initial phone screen before triage into the program. All participants were Caucasian and single. All were enrolled and attending college away from their family home at the initial assessment. Two met full criteria for anorexia nervosa (Diagnostic and Statistical Manual, 4th edition [DSM-IV-TR] (American Psychiatric Association 2000) or International Classification of Diseases-10 [ICD-10] (World Health Organization 1992)) and two were subthreshold anorexia nervosa (meeting all but the weight criteria) at study entry. All female participants presented with amenorrhea for three consecutive months prior to the initial assessment. All four cases reported extreme dietary restraint, although one (Patient 3) reported subjective binge eating 5 times and vomiting six times in the last 3 months. Duration of illness ranged from 12 to 42 months with half of the cases reported a history of inpatient treatment for their eating disorder. Three of the four cases also reported a range of concurrent or past medical and psychological disorders, with two reporting concurrent use of medication.

All cases consented to participate in this study which was approved by the University of Chicago Institutional Review Board.

Assessments

Before the start of treatment, all cases were administered a general clinical interview to assess past and current psychopathology. Patients also completed a semi-structured interview, the Eating Disorder Examination, 14th Edition (Fairburn and Cooper 1993) at pre- and post-treatment, and at six months follow-up. The Eating Disorder Examination was conducted by trained assessors (JPR and BW) who also assigned a Global Assessment of Functioning score (DSM-IV-TR) to patients at each time-point. At each assessment time-point, patients also completed the Beck Depression Inventory.

To assess acceptability of treatment all patients completed an Expectancies Questionnaire (Elkin et al. 1989) at follow-up. For the Expectancies Questionnaire, they were asked to finish this statement: *‘Compared to when I entered the study, I am...’* with the 7-point Likert scale offering options ranging from 1 = ‘very much improved’ to 7 = ‘very much worse’. They were also asked to finish the statement: *‘The treatment I have received has been...’*, with the 7-point Likert scale options ranging from 1 = ‘very much helpful’ to 7 = ‘very much harmful’. They were also asked to rate, *‘How confident would you be in recommending the treatment you received to a friend with a similar problem?’* and *‘How suitable do you think this treatment was for your eating disorder?’* using 7-point Likert scales ranging from 1 = ‘not at all confident’ to 7 = ‘very confident’.

Additionally, at post-treatment a qualitative interview with patients was conducted by the assessors who were not involved in the treatment delivery.

Treatment

This was a Stage I (Rounsaville et al. 2001) treatment development program and being the first of an iterative case series, as few changes as possible were made to the original manual of family-based treatment for adolescent anorexia nervosa (Lock et al. 2002). Up to 20 sessions of manualized family-based treatment for young adults were delivered and was conducted by EYC, ACD, SZ, and PD, overseen by DLG. Treatment was almost wholly delivered in family sessions, with some allowance for individual sessions during the latter part of treatment (Phase 3).

In family-based treatment for young adults, therapists developed a more collaborative approach between the parents, young adult, and therapist in approaching the illness and its treatment than is typical of this treatment for adolescents. While some aspects of the treatment are non-negotiable, such as the expectation of steady weight gain in the early part of treatment (Phase 1), the young adult is frequently included in discussions of how to achieve goals in an effort to return to college, part-time work, and/or regular activities. These discussions are carried out very cautiously but when the young adult's contribution is unproductive, this is discussed and decision-making is refocused solely on the parents. Thus, in talking to the parents and their adult offspring, the therapist may say, *'together as a team we have to work against the anorexia, and one person against the anorexia is usually not enough.'* In family-based treatment for young adults, the therapist's goal is to create an alliance between themselves, the patient and the family, against the illness. In the same situation as above the therapist may say: *'We cannot afford to disagree how to overcome the illness, we will have to work together as a team to outwit it.'* Finally, in collaborating with the young adult, unlike the case of an adolescent with anorexia nervosa family-based treatment for young adults, the therapist gives the patient much more choice as to where they will eat (school or with their family) and how the family will monitor meals when the young adult is at work or college. For Phase 3 in this series, some weight restored patients were seen in individual sessions without family involvement.

All patients were initially living at college, with three of the four returning to their family of origin and attending treatment with their parents. Only Patient 1 stayed at college during Phase 1 with her family preparing, freezing and packing food for her during the school week. This patient went home for the weekends during treatment.

Results

Treatment Characteristics and Outcome

Patients received between 11–20 treatment sessions (over 6 months to one-year). Raw outcome data for each patient at pre-, post-treatment and follow-up are presented in Table 2.

Body Mass Index and Menses

At post-treatment, Body Mass Index (weight in Kg/height in m²) (BMI) was in the normal range (World Health Organization 1995) for three (Patient 2, Patient 3 and Patient 4) of the four cases and remained in this range at follow-up. BMI for Patient 1 increased at post-treatment, however, it did not reach normal range and at follow-up dropped below the threshold for anorexia nervosa (World Health Organization 1992).

Menses had returned for all three female patients at post-treatment. At follow-up, menses remained regular for all these patients although Patient 1 reported going on the contraceptive pill.

The Eating Disorder Examination

In order to assess the clinical significance of change in the Eating Disorder Examination total scores, a clinical cut-off of 1.47 was calculated (with the method detailed in Jacobson and Truax (1991)) using data from Fairburn and Cooper (1993). Total Eating Disorder Examination scores for 2/4 of the patients were in the non-clinical range at pre-, post-treatment, and follow-up. Of the two patients who were in the clinical range at pre-treatment, one of these (Patient 4) was in the non-clinical range at post-treatment and follow-up. Only Patient 3 remained in the clinical range at post-treatment and follow-up.

Beck Depression Inventory

At pre-treatment two patients had Beck Depression Inventory scores in the 'not depressed' range (Beck 1987) and continued in this range at post-treatment and follow-up assessments. In contrast, the other two patients had BDI scores in the 'moderate' (Patient 2) to 'severe depressive' (Patient 3) range. At post-treatment and follow-up, Patient 2 was in the 'not depressed' range, while Patient 3 reported 'mild' to 'moderate' depressive symptoms.

Global Assessment of Functioning

Utilizing the categories (DSM-IV-TR) given for each score, at pre-treatment, only one of the patients' Global Assessment of Functioning scores indicated serious impairment in social, occupational or school functioning (41–50); one reported moderate impairment (51–60); another reported mild impairment (61–70); and the final patient reported slight impairment (71–80).

All patients improved at post-treatment, with two in the 'slight impairment' range (Patient 1 and Patient 3) and two in the 'good functioning' range (Patient 2 and Patient 4). At follow-up, 'good functioning' was reported by Patient 1, Patient 2, and Patient 4, with Patient 3 persisting in the 'mild impairment' range.

Acceptability and Feasibility

All patients stayed in treatment despite being able to voluntarily withdraw due to their adult status. One patient had to fly in for treatment sessions (Patient 3) and another (Patient 4) had to travel 2 h one-way by car for each treatment session.

At follow-up all patients reported that they were ‘very much improved’ (=1) compared to when they entered treatment. Patient 2 and Patient 4 reported that they received ‘very much help’ (=1), Patient 3 reported she found the treatment of ‘much help’ (=2), while Patient 1 reported it ‘minimally helpful’ (=3).

Patient 2, Patient 3 and Patient 4 reported that they would be ‘very confident’ (=7) in recommending this treatment to a friend with a similar problem and ‘very confident’ (=7) with regards to the suitability of this treatment for an eating disorder. Patient 1 reported being ‘somewhat confident’ (=4) in recommending a similar treatment to a friend and rated not being confident (=2) that this treatment was suitable for her eating disorder.

In the qualitative interview of patients, when asked ‘*What parts of treatment helped the most?*’, all patients reported that their parents’ involvement was the most important aspects in their treatment. Patient 4 described how her parents were ‘helpful in getting me to eat food that I was afraid of eating’. Patient 2 echoed this in saying that ‘having my parents there was most helpful’. Patient 1 also said ‘having my parents involved was very helpful’. Finally, 3 patients said that the treatment particularly assisted their parents, saying that it ‘helped my parents control me more’.

When assessors asked, ‘*What parts of treatment helped the least?*’, one patient said that there was nothing unhelpful about family-based treatment (Patient 3). Another described how having siblings join for a session was unhelpful (Patient 2), while Patient 1 described that the sessions were ‘very stressful and I cried each time I left’. Patient 4 described how the least helpful component of treatment was ‘Feeling like I was on lock down and couldn’t leave the house. It got better when I was able to start attending a class and go outside of home over time’.

Conclusion

Although preliminary, it would appear that family-based treatment is acceptable and feasible for weight restoration in young adults with anorexia nervosa. The preliminary efficacy of weight restoration and improvement in secondary symptoms of anorexia nervosa, depressed mood and global psychosocial functioning in most of these cases are promising. At post-treatment and follow-up, three of the four patients were in the normal weight range. While the fourth had regained some weight by post-treatment, she relapsed by follow-up. These finding occurred within the course of 11 – 20 treatment sessions. At post-treatment and follow-up, three of the four patients were in the non-clinical range for the Eating Disorder Examination total score and reported being mildly or not depressed measured on the Beck Depression Inventory. At post-treatment, two of the four patients were in the good psychosocial functioning range and by follow-up, three of the four were in the good functioning range (as measured by the DSM-IV TR).

Common elements in the patients who demonstrated more uniform improvements include returning to the family home during treatment, not having co-occurring medical problems and finding the treatment suitable and helpful. The patient who did not reach normal weight range at post-treatment and follow-up was the only patient who did not return home but

instead stayed at college during the course of treatment. While this patient returned home on weekends and the parents prepared and froze food for her to take to college, this may not have been sufficient to make the necessary changes for weight restoration to occur. In addition, this patient had other co-occurring medical problems that complicated treatment and perhaps giving rise to her finding the treatment ‘upsetting’, ‘unsuitable’ and ‘unhelpful’. Future case series will need to evaluate whether these factors have an impact on outcome. In a future study, whether a larger case series or randomized controlled trial, a recommendation will be for the young adult patient to return home to stay with their parents for at least the initial weeks of treatment.

A potential stumbling block that arises for clinicians treating young adults with anorexia nervosa is the assumption that either the patient will not want their parents involved or that parents should not be involved as this is inappropriate or even detrimental to the young adult’s psychosocial development. It is informative to see how much these ‘legally adult’ patients felt that parental involvement was important and helpful. Furthermore, all patients completed the course of treatment, some at considerable sacrifice (e.g., delaying their college education, traveling long distances), providing at least preliminary evidence for the acceptability of the treatment. Although the duration of adolescence in our culture is believed to be extended to the mid- and late-20 s, individuals with anorexia nervosa are arguably more delayed in their autonomy from their parents, perhaps contributing to the finding that family-based treatment was quite acceptable for 3 of the 4 patients in this series.

A small case series falls prey to several limitations. Among these, the heterogeneity of the sample which included individuals of varying lengths of illness, different presentations with regards to co-occurring disorders, and a single male patient. One could argue that these four cases were not critically unwell as two patients had been subthreshold for anorexia nervosa at pre-treatment. It is also important to note that there may be discrepancies between focusing on body mass index or the Eating Disorder Examination scores in terms of outcome. For instance, the patient with the lowest body mass index at pre-treatment who fared the worst with regards to body mass index outcome, reported the lowest (non-clinical) Eating Disorder Examination score at this time-point. On the other hand, one patient who was subclinical in terms of body mass index at entry but regained weight within the normal range at post- and follow-up remained in the clinical range for the Eating Disorder Examination at these time points. These clinical outcomes underscore the inherent challenges to utilizing the Eating Disorder Examination with a patient population that typically denies or minimizes symptom severity.

Future studies are needed to address these study limitations by utilizing a larger case series, e.g. 15–20 patients, before testing this treatment in a small randomized controlled trial. Family-based treatment for young adults, with greater collaboration between patients and parents than is typical in its application with adolescents, appears to have promise for weight restoration in young adults with anorexia nervosa.

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Table 1

Participants

Client	Age	Sex	AN Dur. ^a	Hosp. ^b	Co-morbid axis I & III Disorders	Medication
Patient 1	18	F	12	Y	Raynaud's disease; unidentified auto-immune disease	Trental® Ultram®
Patient 2	19	M	12	N	None reported	None reported
Patient 3	20	F	27	N	Current major depression, history of self injury and suicide attempt	Effexor® Prozac® Ativan®
Patient 4	21	F	42	Y	Subthreshold current generalized anxiety disorder Past obsessive compulsive disorder	None reported

Note:

^a AN duration in months,

^b Hospitalization for AN

Table 2

Raw scores for each client at pre- post- and follow-up (F/U)

Session #	Patient 1 18	Patient 2 20	Patient 3 11	Patient 4 20
Body mass index				
Pre-	15.9	16.9	17.7	18.1
Post-	18.3	19.0	20.6	21.6
F/U	17.5	19.1	19.9	21.8
Eating disorder examination total				
Pre-	0.49	1.1	2.7	1.7
Post-	0.0	0.06	2.3	0.08
F/U	0.3	0.03	1.9	0.00
Restraint subscale ^a				
Pre-	1.2	3.0	3.6	2.4
Post-	0.0	0.0	2.4	0.0
F/U	0.0	0.0	2.4	0.0
Eating concern subscale ^a				
Pre-	0.0	0.0	1.6	2.0
Post-	0.0	0.0	0.8	0.0
F/U	0.0	0.0	1.0	0.0
Weight concern subscale ^a				
Pre-	0.4	0.0	2.2	0.6
Post-	0.0	0.0	1.7	0.2
F/U	1.0	0.0	2.0	0.0
Shape concern subscale ^a				
Pre-	0.4	1.4	3.3	1.8
Post-	0.0	0.3	4.3	0.1
F/U	0.3	0.1	2.4	0.0
Global assessment of functioning				
Pre-	55	71	45	65
Post-	75	85	70	90
F/U	82	85	65	85
Beck depression inventory				
Pre-	4	19	28	0
Post-	2	4	11	0
F/U	4	6	13	0

^aSubscales for the eating disorder examination