Are Single-Parent Families Different from Two-Parent Families in the Treatment of Adolescent Bulimia Nervosa Using Family-Based Treatment?

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ABSTRACT

Objective: To examine whether family-based treatment (FBT) for adolescent bulimia nervosa (BN), which emphasizes family involvement in helping to reduce binge eating and purging behaviors, is differentially efficacious in single-parent families versus two-parent families.

Method: Forty-one adolescents (97.6% female; 16.0 ± 1.7 years old) with either BN (n = 18) or subthreshold BN (n = 23) were randomized to FBT as part of a larger randomized controlled trial studying treatments for adolescent BN.

Results: Two-parent (n = 27; 65.9%) and single-parent (n = 14; 34.2%) families were compared on demographic variables, presence of comorbid psychiatric illnesses, and symptoms of BN at baseline, post, and 6-month follow-up. ANOVA and chi-square analyses revealed no statistically significant differences between two-parent and single-parent families on any variables with the exception of ethnicity, for which a greater proportion of Caucasians and Hispanic families had two-parent families compared with African-American families ($\chi^2 = 8.68, p = .01$).

Discussion: These findings suggest that FBT may be an appropriate and efficacious treatment for single-parent families as well as two-parent families, despite the reliance on parental intervention to reduce bulimic symptoms and normalize eating patterns. © 2008 by Wiley Periodicals, Inc.

Keywords: bulimia nervosa; adolescent; family-based treatment; single-parent families

Introduction

Bulimia nervosa (BN) affects 1–5% of adolescent girls in the United States1 and one-fifth of adolescents with BN are male.2 Although the typical age of onset for BN is between 15.73 and 18.1-years old,4 treatment research has largely focused on adults. Family-based treatment (FBT) is one of the few empirically supported treatments for adolescents with BN. The specific aspects of FBT which promote or impede therapeutic change are not well understood.

FBT was originally developed for adolescents with anorexia nervosa (AN) and remains one of the only empirically supported treatments for adolescent AN.5–7 Given the success of FBT with adolescents with AN, FBT has recently been adapted for and applied to adolescent BN.8 In contrast to the near 50 randomized controlled trials (RCTs) of treatments for BN among adults,9 only two RCTs have evaluated treatments for adolescent BN.5,10 Both of these studies have supported the efficacy of FBT for BN.

Although FBT provides clinicians with recommendations for tailoring treatment for use with single-parent families, FBT was developed with the general assumption that families include two parents who are available to facilitate treatment. FBT-BN identifies the adolescent’s family as a significant resource for helping the client to normalize his/her eating and return to health. It is a problem-focused treatment that relies on behavioral change directed by unified parents as the main strategy. FBT-BN assures families that they are not the cause of the eating disorder and aims to externalize and separate the symptoms of BN from the affected adolescent to promote parental action and encourage adolescent cooperation. Given the emphasis in FBT on the involvement of the entire family in
helping to reduce binge eating and purging behaviors, it could be that single-parent families demonstrate poorer outcomes than two-parent families receiving FBT. Although there is no research indicating that individuals from single-parent families have poorer outcomes in FBT for BN, there are several lines of indirect evidence to suggest that family status may relate to treatment outcomes. First, single-parent families may have less time, fewer social supports, or fewer financial resources than two-parent families. This could predispose single parents toward premature autonomy-granting or decrease their ability to provide adequate parental monitoring. Thus, it could be that sharing parenting responsibilities across two caregivers (as is assumed in two-parent families) would allow parents to better provide the responsiveness and flexibility, support, and consistent supervision needed in FBT.

Second, family status may relate to treatment outcome as a result of therapists’ attitudes towards single-parent families. In a survey of 1,035 therapists specializing in marriage or family therapy in the United States, Wall et al. found that the majority of therapists believe that the traditional, two-parent family structure is intrinsically more health-promoting for children than single-parent families. This suggests that therapists may be biased against non-traditional families in which parents and children are not biologically related or when neither parent is at home with the child.

A third line of indirect evidence suggests that family status interacts with the length of FBT needed for adolescent anorexia nervosa. In a study investigating the optimal duration of FBT, Lock et al. found that individuals from single-parent families were significantly more likely to benefit from long-term treatment (12 months) than short-term treatment (6 months), whereas there were no differences in ideal treatment length among two-parent families. Thus, there is evidence that family status is related to treatment factors in FBT for adolescent anorexia nervosa.

To explore the generalizability of FBT for BN, the present study examined whether single-parent families differed from two-parent families in terms of eating disorder symptomatology, treatment outcome, or treatment utilization.

**Method**

**Participants**

Participants were 41 adolescents (40 females, 1 male) aged 12–17 recruited through advertising to clinicians, eating disorder treatment centers, and organizations including schools. The mean age of participants was 16.0 ± 1.7 years and mean BMI was 21.8 ± 2.5 kg/m². The ethnic breakdown was as follows: 75.6% Caucasian (n = 31), 14.6% Hispanic (n = 6) and 9.8% African American (n = 4). Participants were randomized to receive FBT as part of a larger RCT evaluating treatments for adolescents with BN or subthreshold BN (SBN). SBN was defined as meeting all DSM-IV criteria for BN, with the exception of the frequency of binge eating and purging behaviors; an individual engaging in binge eating and purging once per week or more over the past 6 months would meet criteria for SBN. Exclusion criteria included presence of serious psychiatric or medical condition requiring hospitalization; body mass index (kg/m²) ≤ 17.5; insufficient proficiency in English; current drug or alcohol dependence; current treatment for an eating disorder; current use of medication known to effect eating or weight; and any physical conditions (e.g., diabetes mellitus, pregnancy) or treatments known to influence eating or weight. This study was approved by the Institutional Review Board at The University of Chicago.

**Measures**

The Eating Disorder Examination (EDE) is a psychometrically reliable and valid standardized interview that measures the severity of eating disorder pathology using a global scale and four subscales (Restraint, Eating Concern, Weight Concern, Shape Concern) and generates operational eating disorder diagnoses. Frequencies of objective binge episodes (i.e., unambiguously large amount of food consumed in a discrete time period with feeling of loss of control) and purging (i.e., self-induced vomiting, laxative/diuretic misuse, driven exercise) over the past 28 days is obtained using the EDE as well.

The Schedule for Affective Disorders and Schizophrenia for School-Age Children (K-SADS) is a semistructured diagnostic interview designed to ascertain past and current episodes of psychiatric disorders in children and adolescents. The K-SADS has good concurrent and predictive validity and high interrater reliability. This measure was used to evaluate the presence of other psychiatric disorders at pretreatment only. The Beck Depression Inventory (BDI) is a widely used 21-item measure of dysphoria and depressive symptoms with excellent psychometric properties. The Rosenberg Self-esteem Scale (RSE) is a psychometrically sound 10-item measure of an individual’s overall self-esteem.

**Design and Procedures**

FBT-BN is manualized and consists of 20 outpatient visits offered over a period of 6 months. There are three phases of treatment. The focus of the first phase is to develop and support parental management of binge eating, purging, restrictive dieting, and any other unhealthy...
weight control behaviors in the adolescent. Once disordered eating is significantly resolved, the second phase of treatment focuses on returning control over eating to the adolescent while discussing issues of independence and autonomy. Finally, the third phase of FBT-BN addresses the ways in which BN has affected healthy adolescent development and the family determines how to get their adolescent “back on track” with age-appropriate normal development (e.g., autonomy as seen through dating, moving out of the home).

Assessments were administered at pretreatment, at post-treatment, and at follow-up by an independent assessor not involved in the treatment delivery. Session attendance was recorded by the therapist. Therapists were doctoral level psychologists or child psychiatry fellows.

Results

Data analyses were conducted using one-way ANOVAs and chi-square analyses. Adolescents of two-parent \( (n = 27; 65.9\%) \) versus single-parent \( (n = 14; 34.2\%) \) families were compared on demographic variables, presence of comorbid psychiatric illnesses, depressive symptoms, self-esteem, severity of BN at baseline, outcome at post-treatment and 6-month follow-up, and session attendance by families at baseline, mid- and post-treatment.

Participants \( (97.6\% \text{ female}) \) were diagnosed with BN \( (n = 18) \) or SBN \( (n = 23) \). The mean duration of illness was 22.3 months \( (SD = 20.4) \). Psychiatric comorbidities were identified in the adolescents as follows: 51.2% had a depressive disorder, 4.9% had an anxiety disorder, and 2.4% had another Axis I diagnosis. There were no significant differences between two-parent and single-parent families on any of the demographic variables with the exception of ethnicity, for which a greater proportion of Caucasians \( (74.2\%; n = 23) \) and Hispanics \( (66.7\%; n = 4) \) had two-parent families compared with African-Americans \( (0\%; n = 0) \) \( (x^2 = 8.68, p = .01) \). However, there were no significant differences across ethnic groups on any of the treatment outcome variables. \(^{24}\)

At baseline, there were no differences in severity of bulimic symptoms or EDE subscale and global scores, duration of illness, or number of comorbid diagnoses. Session attendance did not differ between groups \( (\text{two-parent} = 18.3 \pm 4.2 \text{ sessions}; \text{single-parent} = 16.1 \pm 6.2 \text{ sessions}; F(1,40) = 1.9, p = .18) \). Overall, participants in the study demonstrated significant reductions on the EDE global

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<th>TABLE 1. Comparison of two-parent ( (n = 27) ) and single-parent ( (n = 14) ) families on all study variables</th>
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<td><strong>Baseline</strong></td>
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<td><strong>Two-Parent M (SD)</strong></td>
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EDE, Eating Disorder Examination; OBE, Objective binge episode; BDI, Beck Depression Inventory; RSE, Rosenberg Self-Esteem Scale.
score and subscales, BDI, and significant increases on the RSE (see Table 1). There were no statistically significant differences between two-parent and single-parent groups on any of the treatment variables at post-treatment or 6-month follow-up.

Discussion

FBT for BN initially charges parents with the task of regulating their child’s eating and preventing binge eating and compensatory behaviors. The time and energy needed to choose and monitor meals can be difficult for two-parent families, so one might hypothesize that these tasks may be even more challenging for single-parent families. The purpose of this study was to examine whether single-parent families were at a disadvantage when compared to two-parent families in implementing FBT-BN. The results of this study suggest that there are no differences between two-parent and single-parent families on measures of baseline severity of illness, treatment outcome, or treatment utilization at post-treatment or at 6-month follow-up. Patients in both groups showed significant reductions in eating disorder behavior and depressive symptoms as well as increases in self-esteem. These findings may be particularly relevant to therapists who may feel skeptical that FBT will work with single-parent families. Although we were not able to assess for therapists’ biases regarding family status when using FBT, the findings provide preliminary evidence that the treatment is equally efficacious for different family structures.

Several limitations should be noted. First, there were considerable efforts to retain participants in this treatment study (e.g., repeated phone call reminders) in order to minimize drop out rates.25 Thus, it is possible that family status does relate to treatment compliance in regular clinical practice, but that this difference was masked by the high degree of retention effort. Second, because we did not assess the degree to which treatment responsibilities were shared across family members, it was not possible to determine whether nuances of shared family responsibilities related to treatment outcomes. For example, some two-parent families may not actually share responsibilities equally or single-parent families may recruit significant assistance from other family members or friends in a way that would, in part, mimic the shared resources available in a two-parent family. Although family status represents a reasonable proxy for the quantity and quality of family resources and family member involvement, a more detailed analysis may help identify the most pertinent dimensions related to treatment outcomes. Finally, the small sample size of this exploratory study may not have yielded sufficient power to detect group differences. Further research employing larger sample sizes is needed to corroborate the null results found in the present study.

Despite the reliance on parental intervention to reduce bulimic symptoms and normalize eating patterns, the results of this study suggest that FBT is an appropriate and efficacious treatment for single-parent families as well as two-parent families.

References
