A Review of Psychotherapeutic Interventions for Children and Adolescents with Eating Disorders

Leanna Rutherford MD[1]; Jennifer Couturier MD, FRCPC[1]

Abstract

Objective: Psychotherapeutic interventions for child and adolescent eating disorders have recently received increasing attention in the research literature. This article attempts to summarize these studies. **Method:** The current literature was reviewed using the PubMed and Embase databases under the search terms eating disorders, child, adolescent, and psychotherapy. Here we will present a practical overview of the current evidence for psychotherapeutic interventions in this clinical population. **Results:** There have been some very promising findings with regards to specific types of therapy for anorexia nervosa (AN), bulimia nervosa (BN) and binge eating disorder (BED). **Conclusions:** The best evidence available suggests that family-therapy models are most effective for treating adolescents with AN, and that CBT models are most effective for adolescent BN, although family-based treatment may also be effective for adolescents with BN. Too few studies have been done on BED in adolescents to draw any conclusions; however CBT, IPT and DBT are all theoretically promising.

Key words: eating disorders, child, adolescent, psychotherapy

Résumé

Objectif: Un nombre sans cesse croissant d'articles fait état des travaux de recherche sur les interventions menées auprès des enfants et des adolescents souffrant de troubles du comportement alimentaire. Nous donnons ici un résumé de ces articles. **Méthodologie:** Nous passerons en revue la littérature et présenterons une vue d'ensemble des résultats actuels des interventions psychothérapeutiques dans cette population clinique. **Résultats:** Certaines thérapies donnent des résultats très prometteurs lorsqu'elles sont appliquées à l'anorexie, à la boulimie et à la frénésie alimentaire. **Conclusions:** Les conclusions attestent que la thérapie familiale est la plus efficace pour traiter les adolescents anorexiques. La thérapie cognitive comportementale est la plus recommandée pour soigner la boulimie, même si la thérapie familiale est, elle aussi, efficace pour traiter les adolescents boulimiques. Le nombre d'études portant sur des adolescents souffrant de frénésie alimentaire est insuffisant pour permettre de tirer des conclusions; la thérapie cognitive comportementale, la thérapie individuelle et la thérapie cognitive dialectique sont toutes, en théorie du moins, prometteuses.

Mots clés: troubles du comportement alimentaire, enfant, adolescent, psychothérapie

[1] University of Western Ontario, London Health Sciences Center, London, Ontario
Corresponding email: lrutherf@uwo.ca
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Historically, research in the area of psychotherapeutic treatments for eating disorders has been lacking, but recently, efforts have been made to systematically examine the benefits of various modalities of psychotherapy for eating disorders in children and adolescents. Here we will first review the evolving evidence related to psychotherapy for anorexia nervosa (AN) and then bulimia nervosa (BN) in this population. Finally we will briefly discuss psychotherapy for adolescent binge eating disorder (BED). There have been no studies specifically examining the role of psychotherapy in the treatment of eating disorder not otherwise specified (EDNOS), but many studies include patients with EDNOS classifying them along with the diagnosis that they most closely resemble (i.e. AN or BN). In preparation of this article, a literature review using the PubMed and EMBASE databases under the search terms eating disorders, child, adolescent, and psychotherapy was conducted. All of the original studies of psychotherapeutic techniques for children and adolescents with eating disorders that were found have been included in this review.

Although a variety of psychotherapies have been evaluated for AN, family therapy has consistently demonstrated the most promising results in the adolescent population. This therapy was first described by Minuchin and colleagues (Minuchin et al, 1975 and 1978). Since that time, several controlled trials have been completed which, in addition to proving the efficacy of family therapy, attempted to delineate the most important characteristics of this treatment.

The first controlled study on family therapy was conducted by Russell et al (1987) at the Maudsley Hospital in London comparing family therapy to individual supportive therapy (designed as a placebo control). This type of family therapy was based on some of the structural components outlined by Minuchin, and also asked parents to "take control" of their child's eating, making them responsible for their child's weight gain and recovery. These authors examined the effect of these therapies

on weight maintenance after discharge from an inpatient eating disorder program in 80 patients. Patients were stratified according to the age at illness onset (< 18 years of age and > 18 years of age), length of illness (< 3 years and > 3 years), and diagnosis (AN or BN). They found the most striking results in the early-onset-short-history subgroup where family therapy was clearly superior to individual therapy at one year. There was no difference between therapies in the early-onset-long-history group, where overall patients faired poorly. A follow-up study at 5 years (Eisler, 1997) showed that these results were maintained.

Robin, et al (1999) further studied family therapy by comparing the effectiveness of behavioral family systems therapy (BFST) to ego-oriented individual therapy (EOIT) in a group of 37 female adolescents with a diagnosis of AN. BFST has some similarities to Maudsley family therapy. Any patient that was below 75% of their ideal body weight (IBW) or had significant cardiac problems was hospitalized at the beginning of the study and received a structured refeeding program alongside the study therapy and was discharged only once weight had recovered to 80% IBW. In the BFST group, families were seen together as a whole, whereas in the EOIT the weekly sessions took place with the adolescent alone and parents were seen separately for supportive psychoeducation on a bimonthly basis. Therapy ranged from 12 to 18 months depending on individual needs, and follow-up assessment was conducted at one year after termination of therapy. Results of the study showed that although both therapies led to improvements in eating attitudes, depression, and eating related family conflict, the BFST produced faster results in weight gain and resumption of regular menses suggesting that in these areas BFST was the superior treatment.

Eisler et al (2000) further compared "conjoint family therapy" (CFT) where the family was seen as a whole with "separated family therapy" (SFT) where the parents and child were seen in separate sessions. Both of these treatments were based on Maudsley principles. Study participants consisted of a group of 40 adolescent patients with AN, two-thirds of which had previously been treated. The majority of the patients were severely underweight at an average of 74.2% IBW. Frequency of sessions were allowed to be determined by clinical need, but generally sessions were held weekly at first and gradually spread to every 3 to 4 weeks. The average length of treatment was 16.4 sessions for the CFT group and 15.5 sessions for the SFT group. Outcomes at end of treatment (approximately one year) revealed that overall both groups had similar improvement on their eating symptomatology with nearly two-thirds regaining weight into the normal range and 44% resuming menses. Additionally improvements were seen in individual psychological functioning and parental expressed emotion. The CFT group was found to have made significantly greater gains on measures of mood, obsessionality and psychosexual adjustment. Small benefits were seen favoring SFT in eating symptoms for families with high levels of maternal criticism. A follow-up study conducted 5 years later showed these trends to be sustained (Eisler et al, 2007). Sixty-six percent reported no eating disorder symptoms and only 8% of those who had initially responded to treatment had expressed any sort of relapse. The differences favoring SFT in families with high levels of maternal criticism continued to be evident with a relative lack of weight gain in the maternal criticism subgroup that had received CFT.

Given the variability in length of treatment from previous reports, Lock et al (2005) undertook a study to determine the optimal length of treatment. A manualized form of family therapy based on the Maudsley method and renamed "Family-Based Treatment" was used. These authors randomly assigned 86 adolescents diagnosed with AN with an average BMI of 17.1 to receive either 10 sessions of family therapy over 6 months or 20 sessions over 1 year. Thirty percent had been briefly hospitalized for acute medical instability before the time of randomization. At the end of one year results showed no difference between groups, however post-hoc analysis suggested that those with severe eating related obsessive-compulsive symptoms or those from non-intact families faired better in the long-term (20 session) condition. A follow-up study (Lock et al, 2006) conducted an average of 5 years later demonstrated that the general results were maintained over time, however, the obsessive compulsive

symptoms and family situation no longer distinguished the two treatment groups.

To explore the whether family therapy could be successfully applied to younger children Lock et al (2006) designed a retrospective case series of children ages 9 to 12 years with previous diagnoses of AN or EDNOS who had been treated with family therapy. The data was compared with that of an adolescent cohort (ages 13 to 18 years) also treated with family therapy. The authors found that although the children had lower Eating Disorder Examination (EDE) scores than the adolescents both pre- and post-treatment, they still made significant weight gains and showed improvements in their EDE scores.

Despite adequate research proving its effectiveness, a challenge for any new form of therapy is the feasibility of dissemination. Recently a study was published demonstrating the successful replication of previous positive results in a different center using the Lock manualized form of Family-Based Treatment. Loeb et al (2007) conducted an open trial of 20 adolescent patients diagnosed with AN or subthreshold AN (EDNOS). Patients were treated using manualized family-based therapy until there was successful progression through the 3 phases of treatment, the family had attended 30 sessions, or one year had elapsed, whichever occurred first. Study therapists were familiarized with the manual and were then trained in a 2 day workshop conducted by one of the manual's principal authors. At the conclusion of the study analyses showed significant improvement in mean % IBW (from 82.3 to 93.6), menstrual status (from 11% to 67% having regular menses) and EDE Restraint and Eating Concerns subscales.

In addition to these studies of single family therapy for AN there have been published program descriptions of multi-family therapy aimed at maintaining the general principles of family therapy for AN, but conducted with multiple families together over a series of intensive day long sessions (Dare & Eisler, 2000; Scholtz & Asen, 2001). The theory behind these models was to decrease the isolation often experienced by families coping with AN while providing an intensive psycho educational and therapeutic experience. Although there are no formal study results available, preliminary findings are positive.

Family-based therapy for BN has received much less attention perhaps due to the propensity of evidence for the use of cognitive behavioral therapy (CBT) in adult BN. However, recently a randomized controlled trial (Le Grange, et al, 2007) was published comparing FBT adapted for BN (FBT-BN) to supportive psychotherapy (SPT). Eighty patients meeting criteria for BN or partial BN (those meeting all DSM-IV criteria except binge-purge frequency at once per week for 6 months) were assigned to receive either 20 sessions of FBT-BN or SPT over 6 months. Patients in the FBT-BN group showed a significantly greater rate of symptom remission by the end of treatment, and a more immediate reduction in EDE scores. Measures at 6 month follow-up suggested that this advantage was maintained although no longer statistically significant.

There is also minimal research examining CBT for adolescents with BN, and only one published randomized controlled trial, yet it is currently accepted that CBT is the treatment of choice for adolescents with BN as reflected in the National Institute for Clinical Excellence (NICE) guidelines (NICE, 2004). CBT specifically geared towards adults with BN (CBT-BN) has been developed and manualized (Agras & Apple, 1997). Theoretically this same treatment could be applied to adolescents, however it has been suggested that further modification may help to make this therapy more adolescent-friendly (Lock, 2005). These modifications include increased attention to therapeutic alliance and motivation early in treatment, the use of more age-appropriate language and concrete examples, inclusion of an exploration of adolescent developmental concerns, and the possible inclusion of parents through education on CBT and their role in supporting their child.

There have been two case series reported using CBT-BN modified for adolescents. The first (Lock, 2005) consisted of a pilot program of modified CBT-BN with a series of 34 adolescent patients with BN over an 18-month period. Patients completed a mean of 15.8 sessions and only 6 patients (15%) did not complete the minimum of 6 sessions. At the end of treatment results showed a binge/purge abstinence rate of 56% and an overall 78% reduction in binge/purge behavior. The second case series (Schapmann-Williams et al, 2006) included 7

patients meeting criteria for either BN (3) or EDNOS (4). Patients received between 10 and 22 treatment sessions lasting 4 to 8 months. Results comparing pre-treatment to post-treatment showed a reduction of 90% for both bingeing and purging. Four patients were completely abstinent from binge eating and all 7 were abstinent from purging. At the end of treatment all patients denied food restriction or excessive exercise. Furthermore, pre- and post-treatment EDE scores showed a significant reduction in the total and all subscale scores.

The only published randomized controlled trial of CBT for adolescent BN compared CBT guided self-care with a form of family therapy (Schmidt et al, 2007). CBT guided self-care involved 10 weekly sessions, 3 monthly follow-up sessions and 2 optional sessions with a close other. Family therapy involved 13 sessions with a close other and 2 individual sessions over 6 months. The study included 85 patients ages 13 to 20 years with a diagnosis of BN or EDNOS. Results at 6 and 12 months follow-up showed a significant reduction in both groups for bingeing and purging behaviors over time. A significantly higher proportion of patients in the CBT group were abstinent from bingeing at 6 months; however there were no differences in bingeing at 12 months or vomiting at 6 or 12 months. There were no differences on measures of BMI, strict dieting, fasting or attitudinal ED variables. It was concluded that although both treatments were effective, that CBT self-guided care offered a slight advantage by decreasing bingeing behaviors more rapidly.

Taken together these studies suggest that various forms of CBT are effective for the treatment of adolescents with BN or EDNOS, and that slight modifications can be made to render CBT-BN more adolescent-friendly. It remains unknown how FBT-BN compares to CBT-BN, further research is need to delineate the differences.

Far less work has been done looking at BED in adolescents despite the increasing awareness that this disorder exists in children and adolescents. Similar to BN, CBT has been adapted and recommended for adults with BED. There have been no published reports of CBT-BED for adolescents, but akin to CBT for BN it is a theoretically promising treatment modality. Additionally, there have been suggestions in the literature that both dialectical behavior therapy (DBT) and interpersonal psychotherapy (IPT) may be effective psychotherapy modalities for adolescents with BED. IPT has been recommended alongside CBT for BED in adults (NICE, 2004). Given the importance that adolescents place on interpersonal relationships and the association between loss of control eating in adolescents and eating in response to emotions (anger, anxiety, frustration and depression), it seems reasonable to believe that IPT may be an effective treatment for this population (Tanofsky-Kraff et al, 2007). Similarly, DBT targets emotion regulation and has been shown to be effective in adults with BED (Safer et al, 2007). One case report has been published describing the treatment of an adolescent with BED using DBT modified to include 4 family sessions. In this case there was a reduction of binge eating and a lowering of the EDE restraint score, but a worsening in EDE weight concerns. Thus, although further research is required before any definitive recommendations can be given, the theoretical groundwork for the treatment of adolescent BED is being paved.

There is a clear need for further research in all areas of psychotherapeutic interventions for children and adolescents suffering from eating disorders. This article has focused on psychotherapeutic modalities primarily delivered in an outpatient setting, without delving into the issue of more intense treatment settings in which these psychotherapies could be delivered, for example inpatient or day treatment programs. A review of these treatment settings is beyond the scope of this article, but is also an area requiring further research. In terms of psychotherapeutic interventions, at the current time the best evidence available suggests that family-therapy models are most effective for treating adolescents with AN, and that CBT models are most effective for adolescent BN, although family-based treatment may also be effective for adolescents with BN. Further study is needed to determine how FBT adapted for BN directly compares to CBT-BN. Too little is known about BED in adolescents to draw any conclusions; however CBT, IPT and DBT are all theoretically promising and merit further consideration.

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The authors have no financial relationships to disclose.

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