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Psychological Treatments for Eating Disorders

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Abstract

Purpose of review—This review summarizes recent evidence on psychological treatments for eating disorders (EDs).

Recent findings—EDs are serious psychiatric conditions requiring evidence-based intervention. Treatments have been evaluated within each ED diagnosis and across diagnoses. For adults with anorexia nervosa, no one specialist treatment has been shown to be superior. Cognitive behavioral therapy (CBT) and interpersonal psychotherapy (IPT) remain the most established treatments for bulimia nervosa and binge eating disorder, with stepped-care approaches showing promise and new behavioral treatments under study. Transdiagnostic enhanced CBT has improved symptoms in adults and youth. Maudsley family-based therapy is the most established treatment for youth with anorexia nervosa and may be efficacious for youth with bulimia nervosa. IPT for the prevention of excess weight gain may be efficacious for reducing loss of control eating and weight gain in overweight youth.

Summary—Significant advances in treatments have been made, including evaluation of long-term outcomes, novel approaches, and tailored extension for specific patient profiles. However, widespread access to effective ED treatments remains limited. Increasing the potency and expanding the implementation of psychological treatments beyond research settings into clinical practice has strong potential to increase access to care, thereby reducing the burden of EDs.

Keywords

eating disorders; psychological treatments; evidence-based treatment

INTRODUCTION

This review discusses evidence-based psychological treatments for anorexia nervosa (AN), bulimia nervosa (BN), binge eating disorder (BED), and subclinical diagnoses, with a focus on clinical research updates from the past 18 months. Future directions for eating disorder (ED) treatment research are provided, including strategies to increase the potency, dissemination, and implementation of evidence-based treatments.

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Conflict of interest

There are no conflicts of interest.

TREATMENT FOR ADULTS

Updates on treatments for adults with AN, BN, and BED are reviewed.

Anorexia Nervosa

AN in adults is often persistent in course (1), and no one specialist treatment has been shown to be superior (2), with results primarily focused on short-term findings.

Cognitive behavioral therapy (CBT: targeting the distorted thoughts and maladaptive behaviors that maintain ED symptoms) and interpersonal psychotherapy (IPT: targeting the interpersonal difficulties that maintain ED symptoms) are specialist psychological treatments that address AN symptomatology. The efficacy of CBT and IPT for adults with AN was evaluated against a comparison treatment, specialist supportive clinical management (SSCM, an ED education intervention focused on weight restoration) in a randomized controlled trial (RCT). Long-term findings revealed that 49% of patients evidenced a good outcome (i.e., minimal to no AN symptoms), but no treatment emerged as most efficacious (3). Across follow-up, the percentage of patients with good outcome remained stable with CBT (41%), improved with IPT (64%), and declined with SSCM (42%). Results from the trial suggest that further evaluation using a stepped care approach may be warranted, to evaluate whether providing a treatment focused on targeting ED features and restoring weight (e.g., SSCM) and then providing a treatment focused on factors that maintain the disorder in a broader context (e.g., IPT) is advantageous (3).

Given high rates of non-response, Maudsley Model of Treatment for Adults with Anorexia Nervosa (MANTRA) was developed based on a maintenance model of AN, aimed to address cognitive distortions about the utility of AN and rigidity, socio-emotional deficits, and parents/partners' enabling behaviors. MANTRA was evaluated against SSCM in a RCT (4). MANTRA and SSCM yielded symptom improvements, and the proportion of patients with global Eating Disorder Examination (EDE) scores within one standard deviation of the community mean (below 1.74) at 12-month follow-up was 59% in MANTRA and 73% in SSCM; however, across outcomes, the two conditions were not significantly different (4). A large-scale trial of MANTRA and SSCM is underway to evaluate long-term comparative efficacy of these treatments (given that SSCM effects decline over time (3)), subgroup analyses, and cost-effectiveness (5).

Taken together, these data suggest that patients improve with specialty treatments, but a subset remains symptomatic, warranting novel approaches to improve rates of AN symptom remission and increase the rapidity of treatment response. Cognitive remediation therapy (CRT) addresses the impaired cognition that may contribute to the maintenance of AN, and may reduce dropout and improve outcomes through increased treatment engagement and improved cognitive flexibility (6). CRT literature in adults has focused on small case series (6–8), and a small RCT did not demonstrate the added benefit of including CRT prior to CBT (although improvements in cognitive functioning were greater in the CRT+CBT condition), but suggested that investigation of CRT in RCTs is feasible (9). Continued investigation of CRT is needed with more adequately powered studies, given its preliminary evidence of improved cognitive functioning and patient acceptability (6, 9).

Among patients with severe and enduring AN, treatments that focus on recovery may not match patients' readiness to improve and can result in dropout (10). A novel approach for this population may be to focus on improving treatment retention and quality of life rather than on ED recovery (10). A RCT was conducted among women with severe and enduring AN (defined as ≥ 7 years) using CBT-AN and SSCM, adapted such that the primary focus of both treatments was on improving quality of life but not weight gain specifically (10). Health-related quality of life and ED outcomes improved in both conditions, but at follow-up, CBT-AN had better social adjustment, ED symptoms, and readiness to change. Further, 87% completed treatment and 85% completed follow-up assessments, representing the highest retention rate of any treatment trial of adults with AN (10). The results suggests that individuals with severe and enduring AN may respond to and improve with specialty treatments (10).

Bulimia Nervosa

CBT is most well-established for the treatment of BN, with IPT demonstrating equivalent long-term effects (11–15).

Recent Updates—Despite the equivalent efficacy of IPT to CBT, the time course for IPT has been shown to be slower than CBT (12). It has been noted that various implementations of IPT may have attenuated therapeutic effects by failing to discuss ED symptoms (and link them to interpersonal contexts) or removing IPT techniques that overlap with CBT (15, 16). IPT has since been modified for clinical use (i.e., IPT-BNm) to more comprehensively address bulimic EDs (i.e., BN, BED, and subclinical EDs with bulimic features), with preliminary efficacy in a pilot case series (16). Given demands for time-limited therapies, IPT-BNm was subsequently modified to a brief, 10-session delivery (IPT-BN10) (17). Thirty patients with bulimic disorders were randomized into IPT-BN10, IPT-BNm, or wait-list control. IPT-BN10 and IPT-BNm outcomes did not differ, but were better than wait-list control, suggesting that IPT-BN10 may be feasible and warrants additional study (17).

Given that efficacious specialty treatments are not being implemented in routine practice, a stepped care trial was conducted to evaluate whether efficacious treatments that do not require specialist care can be used in a stepped-care sequence, potentially increasing ease of dissemination. A stepped-care group (“stepped care”; consisting of assisted self-help followed by adjunctive fluoxetine and then CBT) was compared to a CBT group (“CBT”; consisting of CBT followed by adjunctive fluoxetine) in a RCT (18). Remission rates did not significantly differ at 1-year follow-up (32% for stepped-care; 44% for CBT), but stepped-care was more efficacious than CBT in reducing binge eating and compensatory behaviors. Among those predicted as non-responders, abstinence rates were higher in stepped-care (25%) than CBT (4%) (18). Stepped-care was more cost-effective than CBT (19). Results indicate that, if used in a stepped-care sequence, assisted self-help may be a possible alternative to CBT, and that stepped-care may be an effective approach among patients predicted as non-responders (18). Further evaluation of stepped-care order and patient profiles for whom specific components are effective are next steps.

Integrative cognitive-affective therapy (ICAT) for BN aims to enhance treatment efficacy by addressing ED maintaining factors, specifically emotion, self-oriented cognition, and nutritional rehabilitation (20). ICAT was compared to an enhanced version of CBT (CBT-E; see **Transdiagnostic Treatment for Eating Disorders**). Symptoms improved, but treatments were not significantly different. Binge-purge abstinence rates (32.5% for ICAT; 22.5% for CBT-E) and percent of patients within 1 standard deviation of global EDE score community mean (below 1.74; 55.0% for ICAT; 50.0% for CBT-E) were also not significantly different at 4-month follow-up (20). Further evaluation of ICAT, including assessment of long-term outcomes, is warranted.

Binge Eating Disorder

CBT and IPT are efficacious for BED, with greater results than behavioral weight loss (BWL) (21–23). BWL has demonstrated mixed findings regarding BED outcomes and weight loss (21, 22, 24).

Recent Updates—IPT and CBT have been shown to be effective at 1- and 2-year follow-up. To extend these findings and evaluate stability of treatment effects, 5-year outcomes were examined (23). Results showed CBT and IPT were similarly effective in long-term recovery rates (i.e., no objective binge episodes: 52.0% for CBT and 76.7% for IPT). The treatments did not differ from one another at any time point, suggesting both IPT and CBT are effective treatments for BED (23).

Long-term outcomes of CBT compared to fluoxetine and CBT+fluoxetine indicated that CBT (i.e., CBT+fluoxetine and CBT+placebo), but not fluoxetine, resulted in sustained effects on remission from binge eating (45.5% for CBT+placebo, 36.8% for CBT+fluoxetine, and 5.9% for fluoxetine)(25). Thus, CBT was more effective than fluoxetine, and adjunctive fluoxetine did not add benefit to CBT. Further investigation of patient profiles that predict long-term response to CBT is warranted.

Transdiagnostic Treatment for Eating Disorders

Expanding treatment to more broadly address features that maintain EDs may improve symptoms among non-responders (26). Moreover, because EDs share psychopathology and patients often move between diagnoses, a treatment that is applicable for all EDs may enhance the scalability of outpatient specialist treatments (26). For these reasons, CBT was enhanced into a transdiagnostic treatment (CBT-E) (27).

Recent Updates—CBT-E has demonstrated improvements in patients with BMI>17.5 in an efficacy RCT with 60-week follow-up and an effectiveness open trial evaluating post-treatment outcomes (27, 28). To evaluate CBT-E specifically among patients at low weight, outpatients with BMI<17.5 were treated with CBT-E (29). Two-thirds of patients completed treatment, of whom 62% achieved BMI>18.5 and 88% had a global EDE score within 1 standard deviation of the community mean (below 2.77). Effects slightly deteriorated by 60-week follow-up (55% had BMI>18.5 and 78% had global EDE within 1 SD of the community mean) (29). Evaluating CBT-E against comparison treatments in RCTs is indicated.

Additional Treatments for Eating Disorders in Adults

Other treatments for EDs are under study and warrant discussion. Exposure and response prevention approaches have been previously evaluated and recently revisited in a RCT with patients with BN (30) and an open series with nine patients with AN (31); replication of the findings is warranted (32). Dialectical behavior therapy (DBT) is under investigation for treatment of EDs, though most results have been obtained from uncontrolled trials (33). Large-scale RCTs evaluating the efficacy of DBT, particularly in comparison to specialist treatment, are warranted. Motivational interviewing (MI) interventions have been used to increase retention, given high dropout in ED trials (34). However, reviews of MI suggest it is not well supported for ED treatment (35–37).

TREATMENT FOR YOUTH

Intervening with youth represents an ideal target, as EDs typically onset in adolescence and treatments can capitalize on parental/family involvement (38). Maudsley FBT is the most established treatment for youth with AN (50% remission rate, defined as normal weight and normal EDE) and may be efficacious for youth with BN (approximately 30% remission rate, defined as no binge or purge episodes) (39, 40), although it is important to identify treatments for adolescents who do not respond to FBT, as no such treatment currently exists (41). Given the relation between binge eating, excess weight/obesity, and depression (42), IPT for the prevention of excess weight gain (IPT-WG) has reduced loss of control eating and weight gain in overweight adolescents in a pilot trial (43), and a large-scale study is underway.

Recent Updates

Maudsley FBT was compared to individual adolescent focused therapy (AFT), and recent moderator analyses suggest that patients with more severe psychopathology demonstrated greater remission (95% ideal body weight and scores within 1 standard deviation of EDE global norms) in FBT at end-of-treatment, whereas patients with AN binge/purge type had better remission in FBT at 6- to 12-month follow-up (44). In addition, family therapy focused on intra-familial dynamics (rather than ED symptom-focused, behaviorally-oriented FBT) was evaluated as an adjunctive intervention to treatment-as-usual (TAU) (45). TAU +family therapy yielded improvements over TAU on had ratings of good or intermediate outcomes (via the Morgan and Russell outcome scale; 40% vs. 17.2%), achievement of healthy weight (53.4% vs. 27.6%), and amenorrhea (36.7% vs. 65.5%) (45).

One study has evaluated CBT-E among adolescents with AN (46), although it lacked a comparison condition. Similar to adults with AN (29), two-thirds of participants completed treatment and demonstrated significant improvements in weight (28.3% achieved 95% of expected body weight) and reductions in eating pathology (76.7% <1 standard deviation above the EDE global community norm), at 60-week follow-up (46). Further investigation of CBT-E, including comparison to FBT, is warranted (46).

Group-based treatments continue to be evaluated, as the group setting offers opportunities to practice social skills and may be cost-effective. Group CRT has been evaluated in both intensive outpatient and inpatient settings, with adolescents demonstrating increased

cognitive flexibility (47, 48) and increased ability on specific cognitive tasks (48), as well as positive feedback and acceptability (47, 48). Group CBT was adapted for adolescent girls with recurrent binge eating and tested in a small pilot trial of CBT vs. TAU+delayed CBT: all adolescents evidenced abstinence from objective binge eating following CBT (49). IPT-WG, which is delivered in a group format, is currently being adapted for rural African American girls and their parents/guardians; preliminary data suggest that participants identified IPT-WG as an acceptable treatment concept, with recommendations for specific cultural adaptations as well as inclusion of behavioral and parent components (50).

FUTURE DIRECTIONS

Strides have been made to establish evidence-based ED treatments. However, a subset of patients does not improve (14), and many patients do not receive evidence-based treatments in routine care (51, 52). Two overarching future directions for treatment research include making ED treatments maximally potent and maximally implementable.

Maximizing Treatment Potency

Honing our understanding of the factors that maintain EDs and predict patient treatment response may inform development of novel treatment targets. Examining moderators and mediators can be useful for determining for whom and how treatments are most effective. The Research Domain Criteria (RDoC) project aims to bridge neuroscience and genetics to inform diagnostic classification and clinical management (53). RDoC may be a useful framework for EDs and is currently being applied to treatment for BED/pediatric binge eating through examination of genetics, appetitive hormones, and brain imaging that may be involved in the onset and maintenance of the disorder and contribute to heterogeneous symptom presentations (22, 54). Neuromodulation techniques are under evaluation and may help clarify neurobiological mechanisms of EDs (55–57). One strength is the potential for neuromodulation to be an adjunctive treatment, as neuroplastic changes may “boost” psychotherapy effects (55). Combined, these approaches may help to improve our understanding of mechanisms by which ED treatments work, which can inform questions regarding for whom treatments are most efficacious and under what conditions.

Maximizing Treatment Implementation

Scaling efficacious treatments for widespread implementation is a priority, as the need for treatment far outweighs the availability of resources to deliver evidence-based care (52, 58). Treatments must be designed, adapted, and evaluated for their ability to be disseminated and implemented across multiple settings, as the research settings in which most treatments are developed often differ from routine care settings in which treatment is delivered (52).

Partnering with stakeholders to evaluate the uptake, cost-effectiveness, and sustainability of evidence-based treatments is critical (59) as well as building capacity among existing front-line service providers to deliver early ED screening and treatment (58, 60). Training strategies (e.g., “train-the-trainer”) that extend routine training and supervision may accomplish this aim (61); online training offers the possibility for extending the reach of training (62).

Use of guided self-help (GSH) (63) and technology-based treatments (64–66) may also increase ED identification and care delivery, as they rely less on specialists and are therefore more scalable than specialist approaches. Another advantage to these treatments is the potential for integration within stepped-care, population-based models, resulting in comprehensive systems for care delivery that conserve specialist resources for those most in need (67). Critical future directions to evaluate GSH and technology-based approaches include a) evaluating opportunities to enhance the effectiveness and implement GSH treatment, b) determining optimal levels of training/expertise for GSH providers, and c) examining the efficacy, effectiveness, and cost-effectiveness of technology-based treatments (63, 64, 67).

CONCLUSION

The ED field continues to hone psychological treatments, but evaluating long-term outcomes and identifying treatments for the subset of patients who remain symptomatic represent critical future directions. Continued efforts to incorporate novel technologies into treatments and effectively train, disseminate, and implement ED treatments will increase access to evidence-based care, thereby reducing the burden of EDs.

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KEY POINTS

- Though no one specialist treatment has been shown to be superior for treatment of adults with anorexia nervosa, a considerable number of patients improve with specialist psychological treatments.
- Cognitive behavioral therapy and interpersonal psychotherapy remain most efficacious for treatment of adults with bulimia nervosa, and treatment delivered in a stepped-care approach may be promising.
- Long-term efficacy has been established for cognitive behavioral therapy and interpersonal psychotherapy for treatment of adults with binge eating disorder.
- Family-based therapy is the most established treatment for youth with anorexia nervosa and may be efficacious for youth with bulimia nervosa; interpersonal psychotherapy for the prevention of excess weight gain may be efficacious for reducing loss of control eating and weight gain in overweight adolescents.
- Efforts to improve the potency (by targeting key maintaining factors) and expand the implementation of evidence-based treatments (by scaling treatments for widespread delivery) are critical.