

**Suspect an eating disorder? Suggest CBT. *J Fam Pract.* 2009;58:265-268.**

**Potential PURL Review Form: Randomized controlled trials**

**SECTION 1: IDENTIFYING INFORMATION**

1. Citation Fairburn CG, Cooper Z, Doll HA, et al. Transdiagnostic cognitive-behavioral therapy for patients with eating disorders: a two-site trial with 60-week follow-up. *Am J Psychiatry.* 2009;166:311-319.
2. Hypertext link to PDF of full article <http://www.ncbi.nlm.nih.gov/entrez/utils/fref.fcgi?PrId=3051&itool=AbstractPlus-def&uid=19074978&db=pubmed&url=http://ajp.psychiatryonline.org/cgi/pmidlookup?view=long&pmid=19074978>
3. First date published study available to readers December 15, 2008
4. PubMed ID 19074978
5. Nominated By Sarah-Anne Schumann
6. Institutional Affiliation of Nominator University of Chicago
7. Date Nominated December 16, 2008
8. Identified Through *American Journal of Psychiatry*
9. PURLS Editor Reviewing Nominated Potential PURL Bernard Ewigman
10. Nomination Decision Date December 16, 2008
11. Potential PURL Review Form (PPRF) Type RCT
12. Other comments, materials or discussion
13. Assigned Potential PURL Reviewer Sarah-Anne Schumann
14. Reviewer Affiliation University of Chicago
15. Date Review Due February 19, 2009
16. Abstract 

**OBJECTIVE** The aim of this study was to compare 2 cognitive-behavioral treatments for outpatients with eating disorders, one focusing solely on eating disorder features and the other a more complex treatment that also addresses mood intolerance, clinical perfectionism, low self-esteem, or interpersonal difficulties. **METHOD** A total of 154 patients who had a DSM-IV eating disorder but were not markedly underweight (body mass index >17.5), were enrolled in a 2-site randomized controlled trial involving 20 weeks of treatment and a 60-week closed period of follow-up. The control condition was an 8-week waiting list period preceding treatment. Outcomes were measured by independent assessors who were blind to treatment condition. **RESULTS** Patients in the waiting list control condition exhibited little change in symptom severity, whereas those in the 2 treatment conditions exhibited substantial and equivalent change, which was well maintained during follow-up. At the 60-week follow-up assessment, 51.3% of the sample had a level of eating disorder features less than 1 standard deviation above the community mean. Treatment outcome did not depend on eating disorder diagnosis. Patients with marked mood intolerance, clinical perfectionism, low self-esteem, or interpersonal difficulties appeared to respond better to the more complex treatment, with the reverse pattern evident among the remaining patients. **CONCLUSIONS** These 2

transdiagnostic treatments appear to be suitable for the majority of outpatients with an eating disorder. The simpler treatment may best be viewed as the default version, with the more complex treatment reserved for patients with marked additional psychopathology of the type targeted by the treatment.

## SECTION 2: CRITICAL APPRAISAL OF VALIDITY

- |   |  |
|---|--|
| 1. Number of patients starting each arm of the study?   | 4 arms: 2 immediate treatment with CBT-Ef (53) or CBT-Eb (50), 2 with wait list delay of 8 weeks followed by CBT-Ef (25) or CBT-Eb (26)  |
| 2. Main characteristics of study patients (inclusions, exclusions, demographics, settings, etc.)?           | Recruited from patients referred to 2 eating disorder clinics in the UK: Inclusion criteria: any eating disorder needing treatment, age 18-65, body mass index (BMI) >17.5. Exclusion criteria: prior CBT-E or other evidence-based Tx for the eating disorder, coexisting psychiatric disorder that precluded the eating disorder treatment, medical instability or pregnancy, if not available for the next 28 weeks; allowed to stay on antidepressants (76) with no changes during treatment, but weaned off other psych meds before starting study.<br>38.3% bulimia nervosa, 61.7% eating disorder not otherwise specified; 95.5% female, 90.3% white, 19% with history of anorexia nervosa (see Table 1).   |
| 3. Intervention(s) being investigated?  | CBT-E (enhanced, meaning for all eating disorders [rather than only bulimia]) is designed for adult outpatients with any form of eating disorder; 1 90-min preparatory session, then 20 50-min sessions, review session 20 weeks after treatment; "Ef" focuses exclusively on eating disorder psychopathology; "Eb" is broader and also addresses common problems in patients with eating disorders: mood intolerance, clinical perfectionism, low self-esteem, interpersonal difficulties).   |
| 4. Comparison treatment(s), placebo, or nothing?  | Comparing 2 treatments—CBT-Ef and CBT-Eb—and a wait list control   |
| 5. Length of follow up? Note specified end points, eg, death, cure, etc.                                    | 60 weeks   |
| 6. What outcome measures are used? List all that assess effectiveness.                                      | Change in severity of eating disorder features and having global EDE score less than 1 standard deviation above the community mean <1.74 (using EDE=Eating Disorder Examination interview and self-report); assessed at 8 weeks (wait list vs active Tx), at completion of treatment, and at 60-week follow-up.  |
| 7. What is the effect of the intervention(s)? Include absolute risk, relative risk, NNT, CI, p-values, etc. | At 8 weeks (waiting list vs active treatment) mean changes in global EDE-Q score were -0.09 (-0.28 to 0.10) in wait list, -0.94 (-1.28 to -0.61) in CBT-EF and -1.17 (-1.45 to -0.90) in CBT-Eb (Table 2).<br>See Table 3 for results after treatment and at end of follow-up. There was a substantial response to treatment and no significant difference between the 2 treatment groups; by the end of treatment, 51.3% of the overall sample had global EDE scores <1.74; at 60 weeks, 50% of overall sample had global EDE scores <1.74. Eating disorder diagnosis did not significantly affect treatment response: At the end of treatment, 52.7% of patients with bulimia and 53.3% with eating disorder NOS had global EDE scores <1.74; at the 60-week follow-up, 61.4% with bulimia and 45.7% with ED-NOS had global EDE scores <1.74 (difference not significant, no P value given).<br>The subgroup with complex additional psychopathology didn't do as well, but did better with CBT-Eb than CBT-Ef; patients with less complex psychopathology did better with CBT-Ef than CBT-Eb. |
| 8. Study addresses an appropriate and clearly focused question - <b>select one</b>                          | <input checked="" type="checkbox"/> Well covered<br><input type="checkbox"/> Adequately addressed<br><input type="checkbox"/> Poorly addressed<br><input type="checkbox"/> Not applicable  |
| 9. Random allocation to comparison groups - <b>select one</b>   | Well covered   |
| 10. Concealed allocation to comparison groups -   | Well covered   |

**select one**

- 11.** Subjects and investigators kept “blind” to comparison group allocation groups - **select one**  
Well covered  
Comments: Assessors were blinded and not involved in the treatment.
- 12.** Comparison groups are similar at the start of the trial groups - **select one**  
Well covered
- 13.** Were there any differences between the groups/arms of the study other than the intervention under investigation? If yes, please indicate whether the differences are a potential source of bias.  
Well covered  
Comments: The only difference reported was that patients assigned to immediate CBT-Eb were less likely to have current major depressive episode or history of anorexia nervosa (but adjusting for these 2 factors in final analysis made no difference in the findings).
- 14.** Were all relevant outcomes measured in a standardized, valid, and reliable way?  
Well covered  
- **select one**
- 15.** Are patient-oriented outcomes included? If yes, what are they?  
Yes, eating disorder examination (EDE).
- 16.** What percent dropped out, and were lost to follow up? Could this bias the results? How?  
95.1% of assessments completed; 22.1% did not complete treatment, 14% for bulimics and 27.2% for eating disorder NOS.
- 17.** Was there an intention-to-treat analysis? If not, could this bias the results? How?  
Yes
- 18.** If a multi-site study, are results comparable for all sites?  
Yes: 2 sites, no differences.
- 19.** Is the funding for the trial a potential source of bias? If yes, what measures were taken to insure scientific integrity?  
No
- 20.** To which patients might the findings apply? Include patients in the study and other patients to whom the findings may be generalized.  
Patients with bulimia and eating disorder NOS.
- 21.** In what care settings might the findings apply, or not apply?  
Primary care, psychiatry

22. To which clinicians or policy makers might the findings be relevant? As above and personnel involved in insurance coverage.

### SECTION 3: REVIEW OF SECONDARY LITERATURE

#### 1. DynaMed excerpts

- Cognitive behavior therapy (CBT) might reduce relapse rates after hospitalization for anorexia nervosa in adults (level 2 [mid-level] evidence)
  - o Based on small randomized trial with nonsignificant trends
  - o 33 women aged 18-45 years following inpatient treatment for anorexia nervosa were randomized to CBT vs nutritional counseling for 50 individual sessions over 1 year
  - o CBT focused on cognitive and behavioral features associated with eating pathology and used schema-based approach to address issues related to self-esteem, self-schema, and interpersonal functioning
  - o Comparing CBT vs nutritional counseling
    - § 0 vs 3 of 15 (20%) dropped out of therapy before 10 sessions completed
    - § 4 of 18 (22%) vs 8 of 15 (53%) met criteria for relapse at 1 year ( $P < .06$ )
    - § 3 of 18 (17%) vs 0 met criteria for full recovery at 1 year ( $P < .1$ )
  - o Reference: *Am J Psychiatry*. 2003;160:2046 full text
  
- Specific CBT and specific interpersonal psychotherapy may be no more effective than nonspecific supportive therapy for anorexia nervosa (level 2 [mid-level] evidence)
  - o Based on small randomized trial with high dropout rate
  - o 56 women aged 17-40 years with anorexia nervosa were randomized to CBT (specific for anorexia nervosa) vs interpersonal psychotherapy (specific for anorexia nervosa) vs nonspecific supportive clinical management (control) for 20 weekly sessions
  - o 38% dropout rate
  - o No significant differences in weight gain
  - o No significant differences in most individual outcomes, but control group had significantly better outcomes for some global measures
  - o Reference: *Am J Psychiatry*. 2005;162:741 full text
  
- CBT shows some efficacy
  - o Small body of evidence for efficacy of CBT in bulimia nervosa, but quality of trials is variable and sample sizes often very small; systematic review of randomized trials of psychotherapy for bulimia or related eating disorders; studies suggest efficacy for CBT (especially CBT developed for bulimia nervosa) and other psychotherapies (especially interpersonal psychotherapy), psychotherapy alone unlikely to change body weight; systematic review last updated 2004 Apr 21 (*Cochrane Database Syst Rev*. 2004;[3]:CD000562)
  - o CBT + medication was most effective approach in short (16 weeks) study of 120 women 18-45 with bulimia randomized to CBT with drug or placebo, supportive psychotherapy with drug or placebo, or drug (desipramine with change to fluoxetine if necessary) (*Am J Psychiatry*. 1997;154:523; in *J Watch*. 1997;17:79)
  - o CBT and medication both effective, CBT most effective single treatment; meta-analysis of 9 placebo-controlled medication trials (870 patients) and 26 psychosocial trials (CBT, behavioral therapy, or exposure and response prevention) (460 patients) in patients with bulimia nervosa by DSM-III criteria; medication and CBT both effective for reducing binge frequency, purge frequency, depression, and eating attitudes; effect sizes higher for CBT than for medication alone, combination therapy associated with higher effect sizes for binge and purge frequency; no significant differences in dropout rates; few long-term medication trials and high relapse rates; failure to achieve remission in about 50% of patients; study does not help identify which patient characteristics may guide therapy selection (*Behav Ther*. 1999.Winter;30:117; in *Evid Based Med*. 1999;Sep-Oct:145)
  - o CBT associated with more rapid improvement than interpersonal psychotherapy; 220 patients meeting DSM-III-R criteria for bulimia nervosa randomized to CBT vs interpersonal psychotherapy for 19 sessions over 20 weeks, follow-up at 1 year after treatment, 29% vs 6% recovered (number needed to treat [NNT]=5), 48% vs 28%

- remitted (NNT=5), 41% vs 27% met community norms for eating attitudes and behaviors (NNT=8) (*Arch Gen Psychiatry*. 2000;57:459; in *JAMA*. 2000;284:1361)
- o Lack of reduction in purging behavior by sixth CBT session predicts failure to respond to CBT; study of 140 patients who completed 18 sessions of CBT, 41% stopped binge eating or purging, patients who had not reduced purging by 70% or more by the sixth treatment session were more likely to fail CBT therapy (*Am J Psychiatry*. 2000;157:1302; in *Am Fam Physician*. 2001;63:536)
- o Discussion of CBT and evidence base for psychotherapies can be found in *BMJ*. 2002;324:288, commentary can be found in *BMJ*. 2002;324:1522

**2.** DynaMed citation/access date

Accessed February 18, 2009; Anorexia nervosa  
Updated February 17, 2009; Bulimia  
Updated February 16, 2009 09:40 PM

**3.** Bottom line recommendation or summary of evidence from DynaMed (1-2 sentences)

Lots of evidence for CBT in bulimia, very limited evidence for CBT in anorexia.

**4.** UpToDate excerpts

CBT is the most effective form of specialized psychotherapy for patients with bulimia nervosa [15,16]. (See "Psychological treatment of psychiatric disorders," section on Bulimia nervosa). CBT emphasizes the relationship of thoughts and feelings to behavior and helps patients recognize the thoughts and feelings that lead to disordered eating. CBT helps the patient manage the anxiety related to eating and poor body image by developing more adaptive thoughts and coping strategies [17]. CBT is more effective than simplified behavioral therapy or interpersonal psychotherapy for patients with bulimia nervosa [18,19]. A randomized trial comparing self-guided CBT and family therapy for adolescents found that self-guided CBT was both more rapidly effective and less costly [20].

The evidence of efficacy of CBT for anorexia nervosa is more limited. A 20-week randomized trial in 56 women with anorexia nervosa that compared CBT, interpersonal therapy, and a control treatment of nonspecific supportive clinical management found that on the primary global outcome measure, supportive clinical management was significantly superior to interpersonal therapy and was probably also superior to CBT [21]. These results may have important implications for the management of anorexia nervosa, but must be confirmed in other trials.

Binge-eating disorder appears to respond to CBT, at least in the short term, although the effects wane over time [5]. CBT has only limited efficacy in promoting sustained weight loss.

**5.** UpToDate citation/access date

Accessed March 23, 2009: Eating disorders: Treatment and outcome  
Author: Sara F. Forman  
This topic last updated: September 22, 2008

**6.** Bottom line recommendation or summary of evidence from UpToDate (1-2 sentences)

Lots of evidence for CBT in bulimia, some for binge-eating disorder, less for anorexia.

**7.** PEPID PCP excerpts

Psychotherapy

- o CBT and interpersonal therapy: bulimia nervosa & possibly binge-eating disorder
- o Group therapy: adjunctive therapy for anorexia nervosa, bulimia nervosa, and binge-eating disorder
  - § Support/self-help & family groups

**8.** PEPID citation/access data

Accessed February 18, 2009;  
Eating Disorders: Anorexia Nervosa, Bulimia Nervosa, Binge-Eating Disorder

**9.** PEPID content updating

1. Do you recommend that PEPID get updated on this topic?  
No, this topic is current, accurate and up to date.

2. Is there an EBM Inquiry (HelpDesk Answers and Clinical Inquiries) as indicated by the EB icon (E) that should be updated on the basis of the review?

Yes, there is important evidence or recommendations that are missing

If yes, which Evidence-Based Inquiry (HelpDesk Answer or Clinical Inquiry), Title(s):  
Only EB is on meds for anorexia; should be one on CBT.

#### SECTION 4: CONCLUSIONS

**1. Validity:** How well does the study minimize sources of internal bias and maximize internal validity? Give one number on a scale of 1 to 7 (1=extremely well; 4=neutral; 7=extremely poorly) 2

**2.** If 4.1 was coded as 4, 5, 6, or 7, please describe the potential bias and how it could affect the study results. Specifically, what is the likely direction in which potential sources of internal bias might affect the results?

**3. Relevance:** Are the results of this study generalizable to and relevant to the health care needs of patients cared for by "full scope" family physicians? Give one number on a scale of 1 to 7 (1=extremely well; 4=neutral; 7=extremely poorly) 2

**4.** If 4.3 was coded as 4, 5, 6, or 7, please provide an explanation.

**5. Practice changing potential:** If the findings of the study are both valid and relevant, does the practice that would be based on these findings represent a change from current practice? Give one number on a scale of 1 to 7 (1=definitely a change from current practice; 4=uncertain; 7=definitely not a change from current practice) 2

**6.** If 4.5 was coded as 1, 2, 3, or 4, please describe the potential new practice recommendation. Please be specific about what should be done, the target patient population and the expected benefit.

Refer all patients with bulimia (not a practice change) and eating disorder NOS (practice change) to CBT.

**7. Applicability to a Family Medical Care Setting:** 2

Is the change in practice recommendation something that could be done in a medical care setting by a family physician (office, hospital, nursing home, etc), such as a prescribing a medication, vitamin or herbal remedy; performing or ordering a diagnostic test; performing or referring for a procedure; advising, educating or counseling a patient; or creating a system for implementing an intervention? Give one number on a scale of 1 to 7 (1=definitely could be done in a medical care setting; 4=uncertain; 7=definitely could not be done in a medical care setting)

8. If you coded 4.7 as a 4, 5, 6 or 7, please explain.

**9. Immediacy of Implementation:** 3

Are there major barriers to immediate implementation? Would the cost or the potential for reimbursement prohibit implementation in most family medicine practices? Are there regulatory issues that prohibit implementation? Is the service, device, drug or other essentials available on the market? Give one number on a scale of 1 to 7 (1=definitely could be immediately applied; 4=uncertain; 7=definitely could not be immediately applied)

10. If you coded 4.9 as 4, 5, 6, or 7, please explain why. Barriers including having providers available who do CBT for eating disorders and insurance coverage.

**11. Clinical meaningful outcomes or patient oriented outcomes:** 1

Are the outcomes measured in the study clinically meaningful or patient oriented? Give one number on a scale of 1 to 7 (1=definitely clinically meaningful or patient oriented; 4=uncertain; 7=definitely not clinically meaningful or patient oriented)

12. If you coded 4.11 as a 4, 5, 6, or 7, please explain why.

13. In your opinion, is this a Pending PURL? Give one number on a scale of 1 to 7 (1=definitely a Pending PURL; 4=uncertain; 7=definitely not a Pending PURL) 2

Criteria for a Pending PURL:

- Valid: Strong internal scientific validity; the findings appears to be true.
- Relevant: Relevant to the practice of family medicine
- Practice changing: There is a specific identifiable new practice recommendation that is applicable to what family physicians do in medical care settings and seems different than current practice.
- Applicability in medical setting:
- Immediacy of implementation

14. Comments on your response in 4.13 This is new information and should be disseminated as a PURL.

## SECTION 5: EDITORIAL DECISIONS

1. FPIN PURLs editorial decision Pending PURL—Forward to JFP Editor

2. Follow up issues for Pending PURL Reviewer

3. FPIN PURLS Editor making decision Bernard Ewigman

4. Date of decision February 19, 2009

5. Brief summary of decision Cognitive behavioral therapy targeted to eating disorders (CBT-E) was shown to be highly effective in this very well-done randomized trial for patients with eating disorder, not otherwise specified. This is consistent with prior research showing that CBT is the treatment of choice for bulimia, and is the only study that has evaluated its effectiveness in eating disorder, not otherwise specified. This is a common condition (often a missed diagnosis) in practices with adolescents and young women. Patients with this condition should be referred for CBT-E (enhanced, meaning for all eating disorders [rather than only bulimia]). CBT-E is

designed for adult outpatients with any form of eating disorder; 1x90 min preparatory session, then 20x50 min sessions, review session 20 weeks after treatment; "Ef" focuses exclusively on eating disorder psychopathology; "Eb" is broader and also addresses common problems in patients with eating disorders: mood intolerance, clinical perfectionism, low self-esteem, interpersonal difficulties.

For this being a PURL:

- 1) Very convincing study, large effects
- 2) Definitely a practice changer
- 3) The problem is common, though commonly not recognized.

Against this being a PURL:

- 1) Many family physicians do not have easy access to referral for CBT, much less CBT-E. Feasibility of implementation would be a significant barrier. Nonetheless, we believe that many patients could benefit if family physician awareness is increased and referral sources identified.