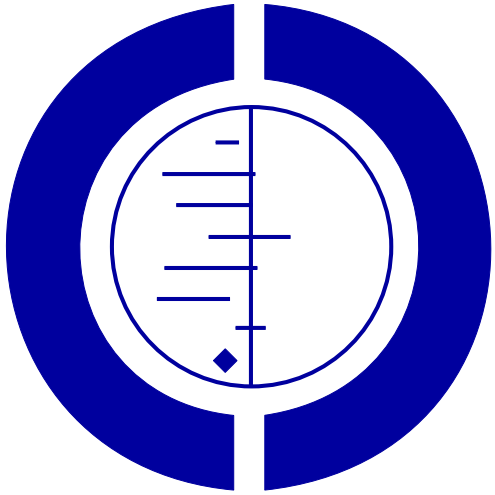
Psychotherapy for bulimia nervosa and binging (Review)

Hay PJ, Bacaltchuk J, Stefano S



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ABSTRACT

Background
Bulimia nervosa and related syndromes such as binge eating disorder are common in young Western women. A specific manual-based form of cognitive behaviour therapy (CBT) has been developed for the treatment of bulimia nervosa (CBT-BN). Other psychotherapies, some from a different theoretical framework, and some modifications of CBT are also used.

Objectives
To evaluate the efficacy of CBT and CBT-BN and compare them with other psychotherapies in the treatment of adults with bulimia nervosa or related syndromes of recurrent binge eating.

Search strategy
A handsearch of The International Journal of Eating Disorders since its first issue; database searches of MEDLINE, EXTRAMED, EMBASE, PsycInfo, CURRENT CONTENTS, LILACS, SCISEARCH, CENTRAL and the The Cochrane Collaboration Depression, Anxiety & Neurosis Controlled Trials Register; citation list searching and personal approaches to authors were used. Search date June 2004.

Selection criteria
All studies that have tested any form of psychotherapy for adults with non-purging bulimia nervosa, binge eating disorder and/or other types of eating disorders of a bulimic type (eating disorder not otherwise specified, or EDNOS) and which applied a randomised controlled and standardised outcome methodology. Studies with greater than 50% drop-out rates were not included.

Data collection and analysis
Data were analysed using the Review Manager software program. Relative risks were calculated for binary outcome data. Standardized mean differences were calculated for continuous variable outcome data. A fixed effects model was used to analyse the data.

Sensitivity analyses of a number of measures of trial quality were conducted. Subgroup done of dianostic groups and short (</= 10 weeks) versus longer therapies. Data were not reported in such a way to permit other subgroup analyses, but the effects of treatment on depressive symptoms, psychosocial and/or interpersonal functioning, general psychiatric symptoms and weight were examined where possible. Funnel plots were drawn to investigate the presence of publication bias.

Main results
The review supported the efficacy of cognitive-behavioural psychotherapy (CBT) and particularly CBT-BN in the treatment of people with bulimia nervosa and also (but less strongly due to the small number of trials) related eating disorder syndromes. CBT has been evaluated in group as well as individual settings. Sensitivitiy analyses did not find quality of trials changed primary outcomes, but there were frequently few trials left for meta-analyses after exluding poorer trials.

Other psychotherapies were also efficacious, particularly interpersonal psychotherapy in the longer-term. Self-help approaches that used highly structured CBT treatment manuals, were promising albeit with more modest results when applied without guidance ("pure self-

help") and their evaluation in bulimia nervosa merits further research. Exposure and Response Prevention did not appear to enhance the efficacy of CBT.

Psychotherapy alone is unlikely to reduce or change body weight in people with bulimia nervosa or similar eating disorders.

Authors' conclusions

There is a small body of evidence for the efficacy of CBT in bulimia nervosa and similar syndromes, but the quality of trials is very variable and sample sizes are often small. More and larger trials of CBT are needed, particularly for binge eating disorder and other EDNOS syndromes. Trials evaluating other psychotherapies and less intensive psychotherapies should also be conducted.

PLAIN LANGUAGE SUMMARY

Cognitive behavioural therapy can help people with bulimia nervosa.

Bulimia nervosa (BN) is an eating disorder in which people binge on food and then try to make up for this by extreme measures such as making themselves sick, taking laxatives or starving themselves. A special form of psychotherapy called cognitive behavioural therapy (CBT-BN) has been developed. We reviewed studies that compared CBT-BN or other similar CBT approaches, with other types of psychotherapy or to control groups who got no treatment (e.g. people on CBT waiting lists). We found that CBT was better than other therapies, and better than no treatment, at reducing binge eating. Some studies found that self-help using the CBT manual can be helpful, but more research and larger trials are needed.

BACKGROUND

Historically, bulimia nervosa was the first eating disorder to be characterised by recurrent binge eating, namely episodes of eating unusually large amounts of food over which there is a sense of loss of control, in people of normal or above average body weight (APA 1994). Typically, the sufferer engages in extreme weight-control behaviours to counteract the binge eating. These behaviours may take the form of self-induced vomiting and/or laxative or diuretic use (purging) or severe dietary restriction and/or intense exercise (the non-purging form of bulimia nervosa) (APA 1994). A second syndrome of recurrent binge eating, binge eating disorder, was proposed in the Appendix to the American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders, the DSM-IV (APA 1994). Binge eating disorder differs from bulimia nervosa in that sufferers do not regularly engage in extreme weight control behaviours. While some validation studies have supported the two disorders as occurring on a continuum of severity (e.g. Hay 1998a) a large study of community participants found that those with bulimia nervosa had a significantly poorer outcome at five years compared to those with binge eating disorder (Fairburn 2000).

Estimates of the prevalence of psychiatric disorders rest on accurate recognition and delineation of disorders in classification schemes, and the development of methods for community-based epidemiological studies. It is now agreed that the first estimates of general population point prevalence of eating disorders likely overestimated bulimia nervosa and later studies (e.g. Bushnell 1990, Fairburn 1994, Fairburn 1993a) are in general agreement that bulimia nervosa occurs in around 1% of young western women and that partial eating disorder syndromes or eating disorder not otherwise specified (EDNOS) (APA 1994) occur in between 2 and 5% of young women (Hay 1998c). Accurate incident studies have been more difficult to complete but cohort and clinical incidence studies (e.g. Bushnell 1990, Hall 1991) support an increase in the incidence of bulimia nervosa since its recognition in the late decades of the 20th century. Sequential population surveys have been problematic and variable in regard to case definition and ascertainment, but those that have been done have not reported an increase since the late 1980s (Soundy 1995, Hay 2003). A systematic review of 12 cumulative incidence studies reported in estimated mean yearly incidence of bulimia nervosa in the general population of 28.8 (SD= 29.7) in women and 0.8 (SD= 0.0) in men per 100,000 per year (Pawluck 1998).

Bulimia nervosa and similar eating disorders, such as binge eating disorder are also commonly encountered in community and general practices. Studies have reported a point prevalence rate of bulimic eating disorders of 3 and 7% (King 1989, Whitehouse 1992, Hay 1998b) in young female general practice attenders. However, studies have found that a low proportion (in one community-based study as low as 10% (Welch 1994)) of sufferers are receiving treatment (King 1989, Whitehouse 1992). This highlights the wide gap between the development of treatments for these disorders and patients accessing care.

Moderately intensive psychological treatments have been developed for patients who have a chronic and relapsing disorder (Herzog 1991a, Fairburn 2000). A manualised form of cognitive-behaviour treatment for bulimia nervosa (CBT-BN) has been de-

veloped by Fairburn and colleagues (see Appendix and Fairburn 1989, Fairburn 1993b). In this therapy, a range of cognitive behavioural procedures are used in a specific sequence of tasks and experiments set within the context of a personalised version of cognitive-behavioural theory of the maintenance of bulimia nervosa. Treatment is out-patient based and involves 15-20 sessions over about five months. While there is good evidence from controlled studies that CBT-BN is an effective approach in bulimia nervosa, it has been recognised that for some patients it is unnecessarily intensive, while for others it is not sufficient (Fairburn 1992b, Fairburn 2003). Subsequently a stepped-care approach to the treatment of those with bulimia nervosa and binge eating disorder, has received empirical support from research by leading investigators in eating disorders (Garner 1986, Laessle 1991, Treasure 1996, Carter 1998). In this approach, sufferers are offered brief educative or self-help therapies and then re-evaluated for further treatment as appropriate. Self-help interventions are frequently based around a manual that includes educative material and a version of the CBT-BN manual. It is also thought that such less intensive treatments (Agras 1989), which can, for example, be provided in primary care, may be clinically appropriate, cost-effective and play a role in secondary prevention for at least a subgroup of sufferers, particularly those with disorders of more moderate severity such as binge eating disorder and those with the non-purging form of bulimia nervosa. In an uncontrolled trial (Cooper 1994) patients with bulimia nervosa were treated successfully with brief therapy, by a social worker with no previous specialist training in eating disorders. Other psychotherapies have been less frequently evaluated in the treatment of bulimia nervosa. However, there has been recent interest in interpersonal psychotherapy as an alternative to CBT. In addition, several studies have examined dismantled forms of CBT-BN. An important aim of this review was thus the evaluation of the results of trials that have compared CBT to i) CBT modified to a self-help form and ii) alternative psychotherapies. We also planned to evaluate whether the treatment setting, namely primary, secondary or tertiary, influences therapeutic outcome. In addition we examined the source of participant recruitment, and the ratio of inclusions and exclusions to address the generalisability of results from clinical trials.

Many patients who present for the treatment of obesity have a problem with recurrent binge eating similar to that seen among patients with bulimia nervosa (Gormally 1982, Wilson 1993). The combination of obesity and binge eating may render them vulnerable to treatment approaches that emphasize restrictive dieting, and thus potentially exacerbate their problem with binge eating. Others (Yanovski 1994), however, found that dietary restriction did not worsen eating disorder symptoms in obese women with binge eating disorder, albeit that disinhibition and hunger remained problematic. In addition, many women with bulimic eating disorders seek treatments that will help them lose weight, whether or not they are overweight (Hay 1998b). The best approach to the management of those with both obesity and a bulimic type eating disorder is unknown. The present review therefore evaluated the impact of treatment on participants' weight (Wilson 1993).

While there have also been many studies demonstrating the effectiveness of antidepressants for bulimia nervosa sufferers in the shorter term (Walsh 1991b) this review focuses on psychotherapeutic approaches. Evaluation of pharmacological therapy is addressed in two related reviews (Bacaltchuk 1999; Bacaltchuk 2000). Readers are also referred to a recent systematic review for an evaluation of cost-effectiveness of treatments and prognostic indicators (NICE 2004). NICE 2004) found only four consistent pre-treatment predictors of poorer outcome for treatment of bulimia nervosa: features of borderline personality disorder, concurrent substance misuse, low motivation for change and a history of obesity.

The review aims were thus to investigate the efficacy of any form of cognitive-behavioural therapy (CBT) and CBT-BN compared to a waiting list, alternate psychotherapies and self-help forms of CBT. We assessed the impact of treatment on primary outcomes of binge eating severity and secondary outcomes such as depressive symptoms, general psychiatric symptomatology and functional outcome. A second aim was to assess the evidence for the efficacy of alternative psychotherapies compared to a waiting list or no treatment control group. The efficacy of augmenting CBT with Exposure and Response Prevention (ERP) is also examined for completeness.

The efficacy of CBT was first examined for all disorders of recurrent binge eating in people of normal or above average weight, and second by diagnostic groups using the strict DSM-IV criteria for bulimia nervosa (BN) and binge eating disorder. This is because many studies include a broader definition of bulimia nervosa than the DSM-IV (APA 1994) e.g. applying the DSM-III bulimia or DSM-III-R BN definitions (e.g. Wilfley 1993) and/or include mixed diagnostic groups (e.g. Treasure 1996, Loeb 2000, Garner 1993). For example the Wilfley 1993 study used an interpretation of DSM-III-R bulimia nervosa which included people who may have been be diagnosed with binge eating disorder in the DSM-IV.

OBJECTIVES

Main objectives

1. To evaluate the efficacy of CBT on binge eating severity and compare it with other psychotherapies in the treatment of adult patients with:
a. bulimia nervosa and related syndromes of recurrent binge eating (however defined)
b. bulimia nervosa (defined by DSM-IV criteria).
c. binge eating disorder (defined by DSM-IV criteria)

2. To evaluate the evidence for the efficacy of CBT-BN (Fairburn 1993b) and compare it with other psychotherapies in the treatment of adult patients with BN.

Other objectives

1. To evaluate the evidence for the efficacy of augmenting CBT with Exposure and Response Prevention (ERP).
2. To evaluate the efficacy of CBT in self-help forms.
3. To evaluate the evidence for the efficacy of other psychotherapies when compared to a no treatment control group.
4. To evaluate the evidence for the efficacy of other psychotherapies when compared to a control therapy.

In addition to primary outcomes, non-completion rates, depressive symptoms and general psychiatric symptoms and functioning were examined.

CRITERIA FOR CONSIDERING STUDIES FOR THIS REVIEW

Types of studies

All studies that evaluated any form of psychotherapy for patients with non-purging bulimia nervosa, binge eating disorder and/or EDNOS of a bulimic type, and which applied a randomised controlled and standardized outcome methodology. Studies with greater than 50% dropouts were excluded.

Types of participants

People with:
A) purging and non-purging bulimia nervosa (DSM-III, DSM-III-R, DSM-IV diagnostic criteria; APA 1994); or equivalent diagnostic criteria, for example ICD-10
B) binge eating disorder(DSM-IV diagnostic criteria)
C) EDNOS - with recurrent binge eating episodes (DSM-IV criteria)

Other criteria:
People of either gender
Adults (aged > 16 years)
Recruited from the community (e.g. volunteers from newspaper advertisements) or primary, secondary or tertiary clinical units
Treated in primary, secondary or tertiary sectors

Types of intervention

Cognitive behaviour psychotherapy: For the purpose of this review, this is a psychotherapy that uses the specific techniques and model, but not necessarily the number of sessions or specialist expertise, of the cognitive and behavioural therapy therapy for bulimia nervosa as described by Fairburn and colleagues (CBT-BN; Fairburn 1993b). (This classic therapy, developed in Oxford, consists of 19 sessions over about 20 weeks.) In the analyses comparing CBT to pure self-help, guided self-help when guided by someone with some expertise, is thus "allowed" as CBT. Data is analysed for both the broader "CBT" and the strict "CBT-BN" in trials of bulimia nervosa.
Nutritional counselling
Interpersonal psychotherapy
Hypnotherapy
Psychoanalytic or psychodynamic psychotherapy
Any other psychotherapy
"Pure self-help" - This refers to modified forms of the classic CBT as described above, delivered without therapeutic guidance (in this review by reading a book).

Types of outcome measures

100% abstinence from binge eating at the end of therapy.
Mean bulimic symptom scores either from an eating disorders symptom rating scale, or the estimated (most often weekly) binge frequency at end of therapy.
Patient satisfaction (if assessed and quantified*).
Side effects or negative effects of therapy (if provided*).
General psychiatric symptomatology (mean scores at end of therapy on any general psychiatric symptom rating scale that is validated e.g. the Brief Symptom Inventory, Derogatis 1983).
Improvement in interpersonal functioning (mean scores at end of therapy on scales measuring social and interpersonal functioning).
Mean scores at end of therapy on any scale measuring depressive symptoms.
Weight (body mass index where possible) at the end of therapy.

Additional data extraction:
The country and/or any specific cultural aspects of the treatment setting is documented in review data collection
Proportion of non-completers or "dropouts" due to any reason, and those due to adverse events*.

*Insufficient data are available at present to measure these outcomes in this review but they will be included, if available, in future versions.

SEARCH METHODS FOR IDENTIFICATION OF STUDIES

See: Depression, Anxiety and Neurosis Group methods used in reviews.

A. Hand searching
A handsearch of The International Journal of Eating Disorders since its first issue in August 1981 to June 2004 was done (PJH) to identify relevant randomised trials.

B. Electronic searching
Relevant randomised trials were identified by searching the following electronic databases using the following terms:

1. MEDLINE search since January 1966 using the following terms:
#1 656 (BULIMIA or BINGE EATING) AND TREATMENT

#2 81 (#1 or (BINGE EATING OR BULIMIA)) AND TRIALS
#3 896 (#2 or (BINGE EATING OR BULIMIA)) AND THERAPY
#4 688 #1 or ((BINGE EATING OR BULIMIA) AND TRIALS)
#5 1090 #4 or ((BINGE or BULIMIA) and THERAPY)

MEDLINE (January 1966-April 2002)
EXTRAMEDEMBASE (** -April 2002)
PsycInfo
Current Contents
LILACS
SCISEARCH
The Cochrane Central Register of Controlled Trials (CENTRAL)

We searched the Cochrane Depression, Anxiety and Neurosis Group Controlled Trials Register (CCDANCTR), using the following terms:

(#45 = bulimia or #45 = eating-disorder) and (#30 = behavior-therapy or #30 = biofeedback or #30 = cognitive-analytic-therapy or #30 = cognitive-behavior-therapy or #30 = cognitive-therapy or #30 = co or #30 = crisis-intervention or #30 = family-therapy or #30 = marital-therapy or #30 = psychoanalytic-therapy or #30 = psychotherapy or #30 = relaxation-therapy)
The searches are conducted with the assistance of The Australasian Cochrane Centre and CCDAN, and with this assistance the search of CCDANCTR has been updated to 2003. With the assistance of Sam Vincent and Jane McHugh of the BMJ Publishing Group, searches of Medline, Embase and Psycinfo were updated to June 2004.

C. Reference searching.
The reference lists of all papers selected were inspected for further relevant studies

D. Personal contact.
The first authors of all included studies were contacted where appropriate for further information, and these and other specialists in the treatment of eating disorders were contacted for information about unpublished trials.

METHODS OF THE REVIEW

All studies were evaluated according to the inclusion criteria listed above. Authorship was not concealed at the point of data collection. Data were extracted by one reviewer. A random 10% selection of trials were re-evaluated for quality of trial assessments and data extraction, by a second investigator (JB). Double-checking and extraction of new data has been completed with the assistance of the Cochrane Advanced Reviewers Support (CARS) from the Australasian Cochrane Centre and the third investigator (SS).

Authors were contacted to provide information not available in the published study, information needed for subgroup and sensitivity analyses, for quality evaluation of the trials and to obtain the results of unpublished or partly published trials.

Data were entered into a spreadsheet programme, and into the RevMan analysis program. Relative risk analyses were conducted for binary outcome data. Standardized mean difference analyses were conducted of continuous variable outcome data. A random effects model was applied.

The following sensitivity analyses were applied where appropriate to determine the effect of including or excluding certain types of studies:

1. Size of trials - trials with 10 or fewer participants
2. Allocation concealment gradings (removal of trials graded C and then B).
3. Single-blinded (ie only outcome assessments were blinded) versus double-blind
4. Use of intention to treat analyses
5. Mixed groups of non-purging and purging bulimia nervosa
6. Loss to completion - trials with > 15% non-completion rates
7. Duration of follow-up: trials which do not report a six-month or longer follow-up
8. Trials of bulimia nervosa that did not asess frequency of binge eating by interview and for at least 4-weeks (This method of assessment is more rigorous, but it has the disadvantage of potentially lower response rates and thus higher non-completion rates.)

Subgroup analyses:
We also planned to examine the:
1. Presence versus absence of co-morbid major depression
2. Presence versus absence of co-morbid Axis I - not major depression (APA 1994) disorders
3. Presence versus absence of co-morbid Axis II (APA 1994) or personality disorders
4. Presence versus absence of obesity (body mass index > 30)
5. Treatment setting: primary, secondary or tertiary
6. Frequency of psychotherapy: less than weekly versus weekly versus more than once weekly
7. Duration of psychotherapy: brief (</= 10 weeks) versus medium term (11 to 20 weeks) versus longer term (> 20 weeks).

Heterogeneity:
Chi-square tests for homogeneity are done at 5% level of significance and the I-square. (The latter provides an estimate of the percentage of variability due to heterogeneity rather than chance alone and a value >50% is considered substantial heterogeneity). If heterogeneity was encountered at a significant level, studies were removed sequentially in order of size by a sensitivity analysis until p>/=0.05and I-square>50% was achieved.

Funnel plot:
Funnel plots were done to look for the possibility of publication bias.

DESCRIPTION OF STUDIES

Forty relevant randomized controlled trials have been presently identified, from an original pool of 1365 studies generated by the search (which identified 27 trials) and from updates to the search conducted over 2000 to June 2004. Seventeen trials used two control groups and four trials used three control groups. The "waiting list" was the most frequently used control group (16 of 60 control groups, 27%). Comparison psychotherapies included interpersonal psychotherapy, hypnobehavioural therapy, supportive psychotherapy and self-monitoring. Thirty-two trials were of solely BN subjects (18 exclusively the purging type; 3 exclusively non-purging). Seven trials included EDNOS subjects (one with BED participants) and four were exclusively of binge eating disorder subjects. Nineteen (48%) recruited subjects directly from the community, mostly by media advertising and almost all, 38, conducted treatment in secondary or tertiary referral settings. (Thus it was not possible to do subgourp analyses by treatment setting). Trials were all in a developed country, 22 in the United States of America or Canada and eight in the United Kingdom. Trials were assessed on the percent exclusion rate of participants at the point of determining eligibility for the study. The mean percent "exclusion" rate of subjects was 43.4% (SD= 22.2, median 35% range 12-85%).

METHODOLOGICAL QUALITY

Trials were graded according to:

1. The concealment of randomisation:
A-indicates adequate concealment
B-indicates uncertainty about whether allocation was adequately concealed
C-indicates the allocation was definitely not adequately concealed

2. The description of the randomization method:
A- Correct randomized method described
B- Randomized method described but incorrect (e.g. every alternate patient given the control treatment).
C- Randomized method not described.

3. Control of selection bias after treatment assignment:
A-intention-to-treat analysis
B-analysis by treatment completed only

4. Outcome of randomisation
We assessed the success of randomisation in controlling for the following putative confounding factors: age, gender, body weight, severity of illness at study inception (using measures applied at outcome assessment).

5. Blinding - the quality of blinding is rated according to the following scale:
A- Blinding of both outcome assessor and participant (double-blind)
B- Blinding of outcome assessor only (single-blind)
C- Blinding not done.

RESULTS

Regarding quality analyses:
In only ten (25%) trials was sufficient information on adequate randomization concealment available at this stage.
In only eleven (28%) trials was the description of the randomization method available and correct.
Just over half (2; 55%) of the trials used an intention-to-treat analyses.
The majority (37;93%) of trials had an evaluation of the adequacy of the outcome of the randomization procedure. In only two cases (Bailer 2003 and Bossert 1989) there were between group differences in levels of depression and a past history of anorexia nervosa respectively and these were not primary outcome variables.
Twenty-six (65%) trials did not use blinding. One was double-blinded (Carter 2003) and thirteen applied, at the least, a blinded outcome assessment. (Trials where the control group comprised a "waiting-list" are, by the nature of the control group, single-blinded at best.)
Too few trials were of well-defined and solely EDNOS (Kenardy 2001) or binge eating disorder (four studies; Carter 1998, Nauta 2000, Wilfley 2002, Peterson 1998) to allow meaningful separate analyses of these diagnostic groups.
Ten had no reported follow-up. The mean duration of follow-up was 10.4 months (SD=12.0, median 7.5 months). In all but two trials improvements were maintained at follow-up.

Regarding other analyses:
Data were not reported and/or not available in such a way to do subgroup analyses, but the effects of treatment on depressive symptoms, psychosocial and/or interpersonal functioning, general psychiatric symptoms and weight were examined where possible.
The majority of therapy sessions occured weekly. The mean duration of psychotherapy was 15.2 weeks (SD=7.5, median 16, range 6 to 52), eleven were "brief" (</= 10 weeks), one long-term (one year) and the remainder were medium term (11 to 24 weeks).

Effect of CBT for adults of normal or above average weight with a disorder of recurrent binge eating:

The comparisons between CBT, waiting list and other control groups and or other psychotherapies versus waiting list control groups are shown in the tables of analyses. Insufficient studies reported general psychiatric symptom severity or psychosocial functioning to permit a meta-analysis on these outcome variables. In some instances we report results where there are fewer than three studies but they are necessarily less robust than where there are larger number of trials. This applies especially to the comparisons between groups and weight post-treatment. A relative risk (RR) less than 1, or standardized mean difference (SMD) less than 0, indicates that the experimental group is more effective.

On all comparisons, we found higher rates of abstinence from binge eating in the experimental groups, with robust effect sizes, when the control group was a "waiting list". This is as expected, as people on a waiting list may be less likely to spontaneously remit than if they are provided with a control therapy. The non-completion rates usually are lower in comparison groups, but the differences are modest and do not reach statistical significance.

Active therapy appears to be associated with lower depression scores in all comparisons of more than three trials, except the comparison of CBT versus CBT augmented by ERP, and the differences are largest where the control group was a "waiting list".

CBT was significantly better than other forms of psychotherapy in terms of binge eating abstinence rates and mean bulimic symptoms at the end of treatment. There were no significant differences in drop out rates. Differences in mean end of trial scores of general psychiatric symptoms, depression or psycho-social functioning did not reach significance.

There is a paucity of data on weight at the end of treatment, and while the results are inconclusive, CBT does not have a consistent impact on weight, compared to any other psychotherapy or compared to a waiting list.

Augmentation of CBT by ERP is not associated with a significant reduction in bulimic symptom scores, although there is a trend towards statistical significance with regard to depressive symptom scores. However, the number of studies was very small for the latter comparison (n=4) and heterogeneity was significant with I-square of 67.1%. Thus augmentation is not supported by the results of this review.

With regard to binge eating abstinence rates, "full" CBT was also favoured over "dismantled" forms of CBT, most commonly a behavioural therapy only (BT). In addition, there was a significant difference in mean binge frequency favouring guided self-help CBT over pure self-help approaches that used highly structured CBT treatment manuals, but not significant differences in abstinence rates, depression or general psychiatric symptoms.

There were two studies (Bailer 2003, Durand 2003) comparing guided self-help, utilizing the Schmidt and Treasure manual (Bailer 2003) or GPs and the Cooper manual (Cooper 1993; study Durand 2003) with specialist care CBT-BN (Bailer 2003) or an ill-defined mix of CBT and IPT (Durand 2003), which found no significant differences in outcomes or drop-out rates between the groups. While this supports guided-self help the specialist clinic care in Durand 2003 may have been of variable quality. Outcome assessments were also not blinded or blinding was unclear. The meta-analysis of pure self-help versus a waitlist control favoured pure self-help for mean difference in binge frequency, but not binge eating abstinence rates.

Issues and results of the proposed sensitivity analyses.

Because of the small number of trials in each analysis these results are limited and should be interpreted with caution. (Only two comparisons had 10 or more trials, the median number of trials was 3, range 2 to 11.) The mean number of participants for all trials was 62.9, median 52.5, SD 43.3, range 14 to 220.

1. No trials had fewer than 10 participants. Sensitivity analyses were not done.
2. The majority of trials were graded 'B' for allocation concealment. There were ten rated 'A', and two rated 'C' (Garner 1993, Peterson 1998). When these two rated 'C' were removed there were no changes to the significance or direction of any result. Removing trials graded 'C' or 'B' left only nine comparisons with at least 3 studies in the meta-analyses. These were in the groups of CBT versus wait-list, any other psychoatherapy versus waitlist and pure self-help veruss waitlist. For each of these findings on comparisons of end-of -treatment bulimic symptoms, binge eating abstinence and number of non-completers, there were no differences in the direction or significance of the nine results.
3. Removing trials without blinded outcome data left only comparisons of CBT versus another psychotherapy with suffiicient numbers of studies (>3) for meta-analyses. There were no changes to the direction or significance of results.
4. Where intention-to-treat (ITT) analyses were not reported, data were extracted directly from published reports, and/or authors were approached. Where applicable intention-to-treat data were calculated for binary outcome variables (abstinence and non-completion rates). Where data for participants were missing because they had not completed the study and had not been assessed at end of treatment, an assumption was made that the participants had not improved from baseline. With regards to continuous data outcomes a sensitivity analyses were done removing trials without ITT data. There were no changes in the direction or significance level of results.
5. There were only 8 trials of bulimia nervosa participants of mixed purging and non-purging type and in only three was the proportion of purgers reported. Thus, in too few trials was a high proportion of (or any) people with non-purging bulimia nervosa for sensitivity analyses of this.
6.Twenty-one trials had >15% or unclear non-completion rates. Many analyses have insufficient data when analyses are repeated with these excluded. The only group of comparisons that remained were those of CBT versus wait-list, CBT versus any other pschotherapy and any other psychotherapy versus waitlist. There were no changes in the direction or significance level of results.
7. When trials with less than six months follow-up were removed, 24 trials remained. One comparisons changed in levels of significance. Mean bulimic symptom scores, in the comparison of any other psychotherapy versus a control therapy, still favoured the former but this was no longer significant (n trials =3, 113 participants, SMD=-0.18, 95%CI -0.55; 0.19).
8. Only 20 trials clearly used an interview to determine bulimic symptom severity, most importantly binge eating frequency, at

outcome. When these only were considered meta-analyses could only be conducted of >3 trials in four comparisons: CBT versus an other psychotherapy, guided self-help versus pure self-help, pure self-help versus a waitlist and CBT versus a component of CBT. There were no changes in the direction or significance of any results. The use of the Eating Disorder Examination (which assesses binge eating frequency over a 4-week period) is also addressed in the analyses with regard to bulimia nervosa only below.
9. One study (Walsh 1997) is a placebo-drug and psychotherapy trial. In the analyses of CBT versus any other psychotherapy, the placebo plus psychotherapy group is treated as a psychotherapy group. As this is not truly equivalent to a psychotherapy group the analyses in which this study appeared were repeated without the study, but this did not change the results.
10. Some participants in one study (Palmer 2002) were taking an antidepressant. These were randomly allocated to the groups to ensure an even distribution. This study was also not strictly non-specialist guided self- help as therapists were nurses experienced in the treatment of eating disorders. A sensitivity analysis was conducted of relevant meta-analyses with this study removed because of possible enhancement of the psychotherapy with medication biasing results. This related to only two comparisons within those of guided self-help versus a waitlist, and only one study remained, which result continued to favour guided self-help.
11. The participants in one study (Wilfley 2002) were selected to all be overweight or obese. Removal of this study did not change the direction or significance of results for the comparisons of CBT versus any other psychotherapy.

Sub-group analysis: Trials of short versus longer duration.
When trials of short duration (</= 10 weeks of therapy) are removed the only changes were in comparisons of CBT versus any other psychotherapy. One comparison changed in level of significance. Mean bulimic symptom scores still favoured the former but this was no longer significant (n trials =9, 668 participants, SMD=-0.18, 95%CI -0.35; 0.00). (See Additional Figure).

Funnel plots are available by text file from PJH upon request. The funnel plots show that no studies reported a negative outcome for CBT compared to a waiting list. However, this does not necessarily mean that publication bias has occurred (see Sterne 2001 for a discussion of funnel plots and bias in meta-analyses). Negative trials are reported for comparisons between CBT and any other psychotherapy and larger trials tend to be closer to a relative risk of 1. This may contribute to the relatively high heterogeneity in the latter comparisons. This heterogeneity may also come from the range of different control psychotherapies.

Results for trials of psychotherapy in participants with bulimia nervosa:

For the following analyses all trials that were not composed entirely of participants with bulimia nervosa were removed. Also removed were trials of participants with DSM-III and DSM-III-R bulimia nervosa of non-purging or not majority purging type, as it is likely the latter would not meet DSM-IV criteria for bulimia nervosa.

With regard to the efficacy of CBT specifically for bulimia nervosa, Table 1 shows that CBT was associated with greater improvements in bulimic symptoms, binge eating abstinence and depression than a waiting-list control (trials were Agras 1989, Freeman 1988, Griffiths 1993, Sundgot-Borgen 2002 and Wolf 1992). In addition, CBT was associated with significantly greater improvements in binge eating abstinence rates, but not mean bulimic symptoms, general psychiatric symptoms or depression compared to any other psychotherapy (Table 2; trials were Agras 2000, Cooper 1995, Fairburn 1991, Fairburn 1986, Griffiths 1993, Hsu 2001 and Walsh 1997).

Any other psychotherapy compared to a waiting-list control (Agras 1989, Freeman 1988,Griffiths 1993, Wilfley 1993 and Safer 2001;Table 3) was associated with significantly greater improvements in bulimic symptoms and abstinence rates at the end of therapy. Insufficient data were available to compare CBT in guided forms versus pure self-help CBT and there were no changes in comparisons of CBT versus CBT augmented by ERP or CBT versus a component of CBT. In the comparison of any other psychotherapy versus a control therapy there were no significant differences in bulimic symptoms for the active treatment group (SMD=-1.29, 95%CI -2.93;0.36, 163 participants, n=4 trials: Bachar 1999, Esplen 1998, Fairburn 1991 and Laessle 1991).

With regard to the efficacy of manual-based CBT for bulimia nervosa (CBT-BN) (Fairburn 1993b) with outcome assessed over a 4-week period by interview (using the Eating Disorder Examination) there were insufficient trials for meta-analyses of CBT-BN versus wait-list control groups. Only four trials have compared this manualized treatment to any other psychotherapy (Agras 2000, Fairburn 1986, Fairburn 1991, Walsh 1997). CBT-BN was associated with significantly greater improvements in bulimic symptoms (n=4 trials, SMD=-0.17 95%CI -0.60;-0.17) and binge eating abstinence rates (n=3 trials, RR 0.81, 95%CI 0.69;0.95) but not greater reduction in depression scores (n=3 trials; SMD=-o.33, 95% CI -0.70;0.05) than another psychotherapy.

Meta-Analyses with significant levels of heterogeneity or I-sqaure >50% and at least 3 studies in the analysis:

1. Using standardized mean differences there was significant heterogeneity for mean depression symptom severity scores for CBT versus other psychotherapy (p<0.001, I-square 74.2%). Removal of trials Bossert 1989, Fairburn 1986, Fairburn 1991, Cooper 1995, Wilfley 1993 and Walsh 1997) left three studies but the meta-analysis sill had significant hetereogeneity with I-square >50%. The heterogenity in the full data comparison may have been because there were a range of different control therapies employed and some positive and some negative outcomes for the active versus control therapy.

2. Using standardized mean differences there was significant heterogeneity for mean depressive symptom severity scores for CBT versus CBT augmented by ERP ($p<0.05$). Removal of Wilson 1986 did not reduce the heterogeneity to non significance.
3. Meta-analyses of trials of pure self-help versus a wait-list showed significant heterogeneity for abstinence rates ($p<0.001$, I-sqaure =88.1%). On visual inspection this is likely as all three trials were of different diagnostic groups, and the weakest result was for the trial of bulimia nervosa participants (Carter 2003). As comparisons only had three studies a sequential removal to obtain heterogeneity was not conducted. This result should be interpreted with caution.
4.The comparison of mean bulimic symptoms scores for any other psychotherapy not CBT versus a control therapy showed significant heterogeneity ($p<0.0001$, I-square 94.8%). Sequential removal of trials did not lead to an improved (or non-significant) level of heterogeneity.

It is of note that where heterogeneity was found in comparisons of mean depression symptom severity, this is a secondary outcome measure and arguably therefore likely to have less consistency in results than found for primay outcomes.

DISCUSSION

The review supported the efficacy of cognitive-behavioural psychotherapy (CBT) and particularly CBT-BN in the treatment of people with bulimia nervosa and also (but less strongly due to the small number of trials) related eating disorder syndromes. Other psychotherapies were also efficacious, particularly interpersonal psychotherapy in the longer-term. Self-help approaches that used highly structured CBT treatment manuals, were promising albeit with more modest results when applied without guidance ("pure self-help") and their evaluation in bulimia nervosa merits further research. Exposure and Response Prevention did not appear to enhance the efficacy of CBT. Psychotherapy alone appeared unlikely to reduce or change body weight in people with bulimia nervosa or similar eating disorders.

This review however includes data with very small numbers of participants, and there are small numbers of events and zero events in some trials. Meta-analyses are less robust with small trials and thus the results should be interpreted with caution. In addition, the overall quality of trials was variable with many not reporting intention-to-treat analyses. However, sensitivity analysis based on quality criteria had minimal impact on primary outcomes for the results of treatment.

In contrast to trials of pharmacotherapy (e.g.Bacaltchuk 1999, Bacaltchuk 2000) the duration and frequency of follow-up was good, and the non-completion or "dropout" rates were modest. (Only one study (Walsh 2004) was excluded because of greater than 50% dropout rate.) Thus, even where people have to wait, psychotherapy appeared to be an acceptable treatment modality. It should be noted that the percentage of participants excluded from trials, and the high number recruited from community settings, increases the generalisability of the findings, supporting the effectiveness as well as efficacy, of psychotherapy for these patients.

There was some risk of bias in results due to the use of outcome data that were not assessed blind to treatment allocation. For example, where participants are in a waiting-list control group it is not possible for the participant to be unaware which group they are in, and many studies rely on participants' self-report assessments for outcome data. Studies where a control therapy was used (such as those by Fairburn 1991) and where outcome assessments were made by interviewers blind to treatment groups, arguably protect against bias. The sensitivity analysis of trials that had such assessments of outcome, however, supported the overall findings. In comparison to pharmaceutical research, the size and number of trials is also low. This unfortunately limits the secondary analyses that could be performed. The majority of trials are of bulimia nervosa of the purging type, which limits generalisability of the results to the broader group of people with eating disorders.

The funnel plot suggested possible publication bias in the CBT versus waiting list comparisons, as no negative trials were found. This is in contrast to the analyses where CBT was compared to other therapies. However, it is possible that the lack of negative trials denoted the efficacy of CBT, compared to a waiting list control. Arguably, waiting list control groups may be expected to be associated with less improvement than groups treated with a control therapy or other active psychotherapyand it is also not possible to blind people to group assigment when one is on a wait-list. There was also a trend for those in all the control groups, including waiting list, to have a lower dropout rate than those in the experimental groups. It may be that people on waiting lists are motivated to wait in order to pursue active treatment. Larger trials and numbers in future meta-analyses are required to address this further.

The efficacy of psychotherapy in reducing bulimic symptom severity, as well as depressive symptom severity, for people with disorders of recurrant binge eating and specifically people with bulimia nervosa, is supported by this review. CBT had more studies supporting it, and on direct comparison with control therapies there were trends for CBT to be superior, which reached significance for end of treatment binge eating abstinence rates, and mean bulimic symptom severity scores. In addition CBT-BN was superior for binge eating abstinence rates in trials of people with bulimia nervosa.

Our review suggested that other psychotherapies were more efficacious than waiting list control groups for end of treatment scores on bulimic symptom severity. Studies used a wide range of types of other psychotherapies, including hypnobehavioural therapy and interpersonal psychotherapy and on qualitative review of the meta-analysis, the only other psychotherapy that performed poorly was supportive psychotherapy. The meta-analyses of comparisons be-

tween other psychotherapies and a control therapy also supported the active therapy. The results point to the need for more studies assessing the nonspecific effects of psychotherapy in bulimia nervosa and related disorders. While CBT was also favoured over "dismantled" forms of CBT (most commonly a behavioural therapy only), enhancing CBT with exposure therapy was not supported.

The results of Agras 2000 were important, in that while CBT was superior at the end of treatment, at one year follow-up participants who had received interpersonal psychotherapy had improved to the level of those in the CBT group. This study suggests that CBT generates a more rapid response than interpersonal psychotherapy, with a difference observed by week six of treatment. As the number of studies grows future meta-analyses could be made of comparative maintenance of change and speed of response between treatments.

Self-help modalities appear promising as an alternative "first-step" care, but there is insufficient evidence for these in people with bulimia nervosa and while guided self-help was favoured over pure self-help approaches, the results did not reach significance for binge eating abstinence rates and more studies are needed. The high heterogeneity in comparisons of pure self help versus waitlist suggest that the results of the three studies of different diagnostic groups should be interpreted separately at this stage of evidence. The result was weakest and not significant in the one trial of participants with bulimia nervosa.

Finally, too few trials report results to formulate conclusions regarding the effects of therapies on participants' weight. There is insufficient evidence to support any of the psychotherapies as having an impact on weight change.

AUTHORS' CONCLUSIONS

Implications for practice

The review supports the efficacy of cognitive-behavioural psychotherapy (CBT) and particularly CBT-BN in the treatment of people with bulimia nervosa and also (but less strongly due to the small number of trials) similar eating disorder syndromes. CBT has been used effectively in group settings.

Other psychotherapies were also efficacious, particularly interpersonal psychotherapy in the longer-term. Self-help approaches, particularly those with some guidance such as highly structured CBT treatment manuals as opposed to pure self-help, are promising. However, their effects tend to be more modest than full CBT. Their evaluation in bulimia nervosa approach merits further research. Pure self-help may be more effective for people with binge eating disorder than people with bulimia nervosa. Exposure and response prevention (ERP) did not appear to enhance the efficacy of CBT.

Psychotherapy alone is unlikely to reduce or change body weight in people with bulimia nervosa or similar eating disorders.

Implications for research

Notwithstanding the practical constraints of conducting psychotherapy research, larger trials are desirable for evaluating the efficacy of psychotherapies in bulimia nervosa, and more trials are needed for people with binge eating disorder and EDNOS.

Research is needed to evaluate specific versus general effects of psychotherapy, and to determine patient characteristics that may predict response to less intensive (e.g. self-help) therapies and non-CBT psychotherapies, particularly interpersonal psychotherapy. In particular, more trials are needed which directly compare stepped-care and guided self-help and pure self-help approaches, with standard care and waitlist control groups.

The findings of an advantage for CBT over other control psychotherapies merits further research. Psychotherapy research should apply more use of "placebo" therapies in comparison groups, in contrast to waiting list groups. This would allow truly double-blinded trials to be done. Studies that directly compare the outcome of CBT in groups, to individual CBT, and patient and illness characteristics that may predict a differential response, would be of interest. Trials of approaches other than ERP that may enhance the effects of CBT are also needed.

Appendix: Definitions of Terms used in this Review.

Binge eating Modified from DSM-IV.(APA 1994).
Eating, in a discrete period (e.g. hours), an objectively large amount of food, accompanied by a lack of control over eating during the episode.

Bulimia nervosa
The American Psychiatric Association DSM-IV (APA 1994) criteria include recurrent episodes of binge eating; recurrent inappropriate compensatory behaviour to prevent weight gain; the average frequency of both binge eating and compensatory behaviour should be at least twice a week for 3 months; self evaluation unduly influenced by body shape and weight; and disturbance occurring not exclusively during episodes of anorexia nervosa.
Types of bulimia nervosa, modified from DSM-IV: purging: using self induced vomiting, laxatives, diuretics, or enemas. Non-purging: fasting, exercise, but not vomiting or other abuse as purging type.

Cognitive behavioural therapy (CBT-BN; Fairburn 1993b)
In bulimia nervosa this uses three overlapping phases. Phase one: aims to educate the person about bulimia nervosa. People are helped to increase regularity of eating, and to resist the urge to binge or purge. Phase two: introduces procedures to reduce dietary restraint (e.g. broadening food choices). In addition, cognitive procedures supplemented by behavioural experiments are used to identify and correct dysfunctional attitudes and beliefs and avoidance behaviours. Phase three: maintenance. Relapse preven-

tion strategies are used to prepare for possible future set backs. Sessions are usually weekly for up to four months.

Cognitive orientation therapy (Bachar 1999)
The cognitive orientation theory aims to generate a systematic procedure for exploring the meaning of a behaviour around themes, such as avoidance of certain emotions. Therapy for modifying behaviour focuses on systematically changing beliefs related to themes, not beliefs referring directly to eating behaviour. No attempt is made to persuade the people that their beliefs are incorrect or maladapative.

Dialectical behaviour therapy (Safer 2001)
A type of behavioural therapy which views emotional dysregulation as the core problem in bulimia nervosa, with binge eating and purging understood as attempts to influence, change or control painful emotional states. Patients are taught a repertoire of skills to replace dysfunctional behaviours.

Hypnobehavioural psychotherapy (Griffiths 1989)
This uses a combination of behavioural techniques such as self-monitoring to change maladaptive eating disorders, and hypnotic techniques to reinforce and encourage behaviour change.

Interpersonal psychotherapy
In bulimia nervosa this is a three phase treatment. Phase one analyses in detail the interpersonal context of the eating disorder. This leads to the formulation of an interpersonal problem area, which forms the focus of the second stage aimed at helping the person make interpersonal changes. Phase three is devoted to the person's progress and an exploration of ways to handle future interpersonal difficulties. At no stage is attention paid to eating habits or body attitudes.

Pure self-help CBT
A modified form of CBT, in which a treatment manual is provided for people to proceed with treatment on their own, or with support from a non-professional. Guided self-help usually implies that the support person may or may not have some professional training, but is usually not a specialist in eating disorders. The important characteristics of the self-help approach are their use of a highly structured and detailed manual-based CBT, with guidance as to the appropriateness or not of self-help for the reader, and advice on where to seek further help.

Self psychology therapy (Bachar 1999)
This approaches bulimia nervosa as a specific case of the pathology of the self. The treated person cannot rely on people to fulfil their needs such as self esteem. They instead rely on a substance, food, to fulfill personal needs. Therapy progresses when the people move to rely on human beings, starting with the therapist.

Motivational enhancement therapies
Schmidt 1997 and Vitousek 1998 have developed motivational enhancement therapies (METs) in eating disorders. This treatment targets the ego-syntonic nature of the illness and is based on a model of change, with focus on the stages of change. Stages of change represent constellations of intentions and behaviours through which individuals pass as they move from having a problem to doing something to resolve it. People in 'pre-contemplation' show no intention to change. People in 'contemplation' acknowledge they have a problem and are thinking about change, but have not yet made a commitment to change. People in the third 'action' stage are actively engaged in overcoming their problem while people in 'maintenance' work to prevent relapse. Transition from one stage to the next is sequential, but not linear. The aim of MET is to help patients move from earlier stages into 'action' utilising cognitive and emotional strategies. There is an emphasis on the therapeutic alliance. With pre-contemplators, the therapist explores perceived positive and negative aspects of use. Open-ended questions are used to elicit client expression, and reflective paraphrase is used to reinforce key points of motivation. During a session following structured assessment, most of the time is devoted to explaining feedback to the client. Later in MET attention is devoted to developing and consolidating a change plan. (See: http://www.dualdiagnosis.org/library/nida_00-4151/9.html for more general references.)

NOTES

February 2003
This review has undergone slight revision (in response to statistical editors comments) since the previous issue. The Abstract has also been shortened.

FEEDBACK

Comment Bulimia nervosa reviews

Summary

Criticism
There are a number of problems with this review, some of which are sufficiently serious as to compromise it. It is probably for this reason this review has attracted little attention from clinicians and researchers. It should be noted that most of the shortcomings specified below also apply to the sister Cochrane reviews on the pharmacological treatment of bulimia nervosa (Bacaltchuk et al, 1999, 2000).

Conflation of Different Clinical States
This is the most serious shortcoming. It is generally accepted in the eating disorder field that a distinction should be drawn between bulimia nervosa and the provisional new eating disorder "binge eating disorder" (American Psychiatric Association, 1994). The two conditions differ in their clinical and demographic characteristics. They also differ in their natural course and response to treatment. They are not distinguished in this review. In distinguishing

between the two conditions, it should be noted that the RCTs on the treatment of "non-purging" bulimia nervosa are now viewed as having been studies of binge eating disorder.

Conflation of Different Treatments
Much of the research on the psychological treatment of bulimia nervosa has focused on a specific form of cognitive behaviour therapy (CBT) devised by Fairburn (1981). This involves 15 to 20 treatment sessions over 4 to 5 months. The characteristics of this treatment have been specified in a number of treatment manuals (e.g., Fairburn, 1985; Fairburn et al, 1993). Recently there have been attempts to abbreviate and simplify this form of CBT. These have included the development of self-help versions. These treatments are
of interest and potential importance but they should not be confused with CBT. Instead, they should be compared with CBT. This distinction is not made in this review. Also, a treatment that had almost nothing in common with CBT (cf., Bachar et al, 1999) is categorised as CBT.

Neglect of Persistence of Treatment Effects
Bulimia nervosa tends to run a chronic course. Therefore treatment effects which are short-lived or of uncertain stability are of limited clinical significance. The review places insufficient emphasis on the longer-terms effects of treatment, the focus being on their immediate impact. This is a major shortcoming since the treatments studied differ in this regard.

Neglect of Quality of Research Assessment
Although the review pays due attention to generic RCT methodology, it ignores other important methodological issues. These concern the assessment methods used. Perhaps of greatest importance is how the central behavioural feature of bulimia nervosa was defined and assessed. "Binge eating" is not a simple phenomenon and reliance upon patient self-report has been shown to be unreliable. The methods used to assess binge eating have changed over the years with the great majority of researchers now using the "investigator-based" mode of assessment incorporated within the Eating Disorder Examination. The second issue concerns the time frame of the assessment. Many of the earlier studies used a one-week time frame. This is now regarded as unsatisfactory since bulimic features fluctuate in severity with patients commonly having "good" and "bad" weeks. Instead, a four-week time frame has been adopted as more or less standard. This is the time frame used by the EDE. A distinction should therefore be drawn between EDE-based and non-EDE-based RCTs, perhaps by sensitivity analysis.

Neglect of Associated Psychiatric Features
The review focuses primarily on certain behavioural features of bulimia nervosa, namely the frequency of binge eating and purging. This has the merit of simplicity but it results in other important features receiving insufficient attention. These include dietary restraint, depressive features and interpersonal functioning. These and other features are commonly reported in studies of the treatment of bulimia nervosa. Any evaluation of the effects of treatment should include reference to change in these domains.

Concluding Remark
These shortcomings should be relatively easily remedied.

I certify that I have no affiliations with or involvement in any organisation or entity with a direct financial interest in the subject matter of my criticisms.

Author's reply

Response to critique on Bulimia Nervosa Psychotherapy review.

Date: September 13th 2002

The authors thank the reviewer for their comments and are pleased to have the opportunity to answer their concerns.

Regarding: Conflation of different clinical states.
We acknowledge that the review when first prepared combined all forms of disorders of recurrent binge eating in those of normal or above average weight. This was because at the time the review was first prepared, there were fewer trials than currently, and there was doubt about the validity of distinctions between the non-purging form of bulimia nervosa and binge eating disorder. As the reviewer comments, "RCTs on the treatment of 'non-purging' bulimia nervosa are now viewed as having been studies of binge eating disorder." However, at the time when the review was first prepared there was not general agreement on this point. It is anticipated that as the validity of the different diagnostic criteria for binge eating syndromes in normal or above average weight people are further refined, and internationally accepted diagnostic criteria, such as the American Psychiatric Association DSM-IV, revised, future trials of the non purging forms of bulimia nervosa, binge eating disorder and EDNOS syndromes will be done of better defined syndromes. Unfortunately many trials also "conflate" the diagnostic groups.

The majority of trials are of the purging form of bulimia nervosa, and with an increase in number of trials overall since the review was first published, it has been possible now to add further analyses in the review of this specific subgroup. These analyses of bulimia nervosa are in the most recent update, submitted on 28th August, 2002. Similar analyses of binge eating disorder do not produce meaningful statistical results as there are yet too few trials for meta-analyses.

Regarding: Conflation of different treatments
The review does not confuse the specific manualised form of CBT with abbreviated forms. Only in the comparisons of CBT with pure self-help forms is an abbreviated form, namely guided self-help,"allowed" as a form of CBT. Thus the review does not claim guided self-help CBT is the same as the manualised form as devised by Fairburn and colleagues. In fact, the review specifies it is not under its description of cognitive behaviour psychotherapy in the section: "Types of Interventions".

We took the view that it is of clinical interest to compare all variants of CBT, in addition to the specific form devised by Fairburn and colleagues for bulimia nervosa. While the reviewer asserts that "much of the research has focused on a specific form of CBT", there are only a few trials which have used this form, and there are many more studies which have tested variants of it. We recognised the interest in subgroup analyses of this specific form of CBT (termed CBT-BN in the most recent update of the review) and have done a subgroup analysis, taking account also of outcome assessment over 4-weeks (see below). When this was done only 4 trials remained, three of which were conducted by Fairburn and colleagues. Head-to-head comparisons of CBT-BN versus guided CBT-BN in people with bulimia nervosa will be added to the review when such RCTs are done.

The review does not describe the treatment in the Bachar et al 1999 study as CBT. It describes it an alternative psychotherapy, and as such, data from this trial are found in meta-analyses of "other psychotherapies". As reported in the table of included studies with regard to the Bachar trial : "In this review self-psychology is compared to nutritional counselling".

Regarding: Neglect of persistence of treatment effects.
The review does regard the persistence of treatment effects as of importance and reports that "in all but two trials improvements were maintained at follow-up".

In addition, the results of the trial of Agras et al 2000, which is the largest such trial to date, reporting a "catch-up" effect of interpersonal psychotherapy compared to CBT-BN at one year, are highlighted in the discussion and meta-analyses of comparative maintenance of change between treatments are foreshadowed for future reviews. Another example is from the review of combination treatment and drug therapies, where it is stated in the discussion that "longer term maintenance of change appears to be better with CBT than antidepressant drugs, as relapse rates with drug discontinuation seem to be high".

Notwithstanding this, comparative effects at the end of treatment remain highly clinically relevant. Given the evidence, many patients may prefer a treatment with a better end-of-treatment outcome that is maintained over time, as CBT appears to be, and not to wait the additional time for another psychotherapy to have similar effects.

Regarding: Neglect of quality of research assessment.
The review does regard the quality of the assessment instrument as of importance, particularly with respect to the use of not blind self-report data in comparative studies where the control is a waiting list. Sensitivity analyses are reported of blinded outcome data, and in former reviews self-report data, and in the more recent version interview based data assessing bingeing over 4-weeks for trials of bulimia nervosa. While the reviewer asserts, no doubt correctly, that the "great majority of researchers are now using the Eating Disorder Examination" (an interview based assessment instrument developed by Fairburn and colleagues) many trials did not use this, and instead relied on self-reported binge-frequency, a point emphasised in this review in assessing quality of trials.

Regarding: Neglect of associated psychiatric features
The authors are puzzled by this criticism as in every comparison an attempt is made to report on analyses of comparative changes in depressive symptoms, psych-social (interpersonal) functioning, non-completion rates, weight and levels of general psychiatric symptoms. It would be interesting to add levels of dietary restraint but it is seldom reported in trials. The authors chose a broad range of outcome domains that were commonly reported.

Concluding remark: These shortcomings should be relatively easily remedied.
The authors are pleased to report that the issues raised in the critique with regard to conflation of diagnostic groups have been pre-emptively addressed in the most recent update of the review. Other issues are answered as above.

Contributors

Comment Bulimia nervosa reviews (especially that on psychological treatments)
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POTENTIAL CONFLICT OF INTEREST

None

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** Indicates the major publication for the study*

TABLES

Characteristics of included studies

Study	Agras 1989
Methods	RCT Type of randomisation: correct Concealment of allocation: adequate ITT analysis: no Blinding of assessor: no blinding Dropouts described: yes Baseline comparability: yes Length of follow-up: 6-month
Participants	Number randomised: 77 Number of dropouts: 10 Gender: all women (F) Age: 18-61 years, Method of diagnosis: DSM-III-R Diagnosis: Bulimia Nervosa purging type Recruitment: media advertising and referrals Treatment setting: tertiary setting Country: USA
Interventions	Group 1: CBT -BN Group 2: waitlist Group 3: self-monitoring Group 4: CBT&RP
Outcomes	Self-reported purging; Beck Depression Inventory (BDI); binge frequency not given. Medians and interquartile ranges reported.
Notes	Authors approached and responded to inquiries. regarding allocation concealment.
Allocation concealment	A

Study	Agras 2000
Methods	RCT - multi-site Type of randomisation: Efrons Biased Coin Randomization Concealment of allocation: yes ITT analysis: yes Blinding of assessor: yes Dropouts described: yes Baseline comparability: yes A-priori power analysis: yes Length of follow-up: 12 months
Participants	Number randomised: 923 responded to the advertisements or were referred from clinics, 220 (24%) participated in study Number of dropouts: 61 Gender: not specified Age: mean 28.1 SD 7.2 Method of diagnosis: DSM-III-R Diagnosis: Bulimia Nervosa purging type Recruitment: media advertising and referrals

Characteristics of included studies (*Continued*)

	Treatment setting: specialist Country: USA
Interventions	Group 1: Manualized CBT-BN Group 2: interpersonal psychotherapy (as used in previous studies)
Outcomes	Eating Disorder Examination (EDE) interview ratings of binge frequency, purge frequency; weight (BMI); EDE subscales and global ratings; self-esteem; general psychiatric symptom severity; social adjustment; interpersonal functioning Follow-up: one year
Notes	Data was tested by ITT but completer analysis only available from published paper for continuous data. Authors supplied information on ITT analyses. Medians were reported in the published paper and normalised means and SD for continuous data have been supplied.
Allocation concealment	A

Study	**Bachar 1999**
Methods	RCT Type of randomisation: unclear Concealment of allocation: B ITT analysis: yes Blinding of assessor: partial Dropouts described:yes Baseline comparability: yes Length of follow-up: 12 months
Participants	Number randomised: 14 Number of dropouts:0 Gender: F Age:24.1 SD 3.3 Method of diagnosis: DSM-IV Diagnosis: Bulimia Nervosa Recruitment: specialist referra Treatment setting: specialist Country: Israel
Interventions	Group 1: Self-psychology psychoanalytic therapy plus nutritional counselling (weekly sessions for one year) Group 2: cognitive orientation therapy plus nutritional counselling (weekly sessions over one year). Group 3: less intensive nutritional counselling. (In this review self-psychology is compared to nutritional counselling).
Outcomes	Percent patients remitted; Eating Attitudes Test (EAT)-26; General Symptom Inventory (GSI); DSM-Symptom Scale; Selves questionnaire
Notes	Intensive therapy, small numbers (n=25) follow-up at one year
Allocation concealment	B

Study	**Bailer 2003**
Methods	RCT Type of randomisation: unclear randomisation by group; randomisation procedure not described Concealment of allocation: unclear ITT analysis: yes Blinding of assessor: not clear Dropouts described: yes Baseline comparability: unclear, baseline values used as covariates, CBT group had higher levels of depression

Characteristics of included studies (*Continued*)

	Length of follow-up: 12 months
Participants	Number randomised: 81 of 87 who were enrolled Number of dropouts: 25 Gender: not specified Age: self help mean 23.3 (SD 4.1); CBT mean 24.2 (SD 4.9), all >17 years Method of diagnosis: SCID for DSM-IV Diagnosis: Bulimia Nervosa Recruitment: primary and secondary referrals Treatment setting: Clinic for Eating Disorders, Department of Psychiatry, University Hospital of Psychiatry Country: Austria
Interventions	Group 1: Guided self help group using CBT for Bulimia Nervosa (CBT-BN) based on Schmidt & Treasure (18 weekly visits of 20 minutes) Group 2: Group CBT-BN
Outcomes	Remission; Eating Behaviour-IV self-monitoring from for recording binge eating and vomiting; EDI subscales; BDI Follow-up: one year
Notes	
Allocation concealment	B

Study	**Bossert 1989**
Methods	RCT Type of randomisation: unclear Concealment of allocation: ITT analysis: yes Blinding of assessor: yes Dropouts described: n.a. Baseline comparability: yes, but higher numbers of past history of AN in non-specific therapy group Length of follow-up: follow-up continuing at time of publication.
Participants	Number randomised: 14 Number of dropouts: 0 Gender: F Age:18-30 yr Method of diagnosis: DSM-III Diagnosis: Bulimia Nervosa Recruitment: community Treatment setting: specialist Country: Germany
Interventions	Group 1: self- management Group 2: nonspecific therapy
Outcomes	A.M.S. (mood); P.D.S. (paranoid depression scale); inpatient multi-dimensional psychiatric scale (I.M.P.S.); semi-structured interview (S.I.A.N.X.) Self-report; medical records; blinded interview
Notes	small size, self management like CBT
Allocation concealment	B

Study	**Bulik 1998**
Methods	RCT

Characteristics of included studies (*Continued*)

	Type of randomisation: unclear Concealment of allocation: uncertain ITT analysis: yes (no cross over) Blinding of assessor: outcome assessment blind Dropouts described: n.a. Baseline comparability: yes outcome of randomisation is assessed Length of follow-up: 12 months
Participants	Number randomised: 111 Number of dropouts: 2 dropouts from ERP-binge cueing and ERP-purge cueing respectively and one from the relaxation treatment Gender: women Age: 17-45 yr Method of diagnosis: DSM-III-R Diagnosis: Bulimia Nervosa purging type Recruitment: community and primary care recruitment Treatment setting: secondary care level treatment Country: New Zealand
Interventions	Group 1: CBT plus Exposure and Response Prevention (ERP)-binge cues (8 sessions) Group 2: CBT plus Exposure and Response Prevention ERP-purge cues (8 sessions) Group 3: CBT plus Exposure and Response Prevention relaxation (8 sessions). (For abstinence rates and dropout rates data for both forms of ERP are combined; for continuous data analyses CBT & relaxation is compared with CBT-B)
Outcomes	Binge frequency; binge & purging abstinence; EDI subscales; HDRS; GAF scale; Follow-up: one year
Notes	Predictors of outcome were provided in a second paper. Poor outcome was related to histories of obesity and alcohol dependence and symptom severity. High self-directedness was a strong predictor of good outcome.
Allocation concealment	B

Study	**Carter 1998**
Methods	RCT Type of randomisation: not described Concealment of allocation: unclear ITT analysis: yes (no cross over) Blinding of assessor: outcome assessment blinded - telephone blinded ascertainment of binge eating frequency. Dropouts described: no Baseline comparability: randomisation outcome was assessed and groups were comparable Length of follow-up: 6-month
Participants	Number randomised: 72 Number of dropouts: 9 Gender: women Age: 18-65 years; mean 39.7 (SD10) Method of diagnosis: operationalised DSM-IV criteria Diagnosis: Binge Eating Disorder Recruitment: community volunteers through media advertisement Treatment setting: quasi-primary care Country: UK
Interventions	Group 1: Guided self-help (6-8 25 minute sessions over 12 weeks) Group 2: pure self-help (mailed book) (12 weeks) Group 3: wait list control group, no drug (12 weeks). (Therapists were nonspecialists without formal training or clinical qualifications).

Characteristics of included studies (*Continued*)

Outcomes	Global Eating Disorder Examination-V4 score; Brief Eating Disorder Examination; General Severity Index of the Brief Symptom Inventory (BSI); Rosenberg Self-Esteem Scale; weight; self-esteem Folow-up: six months
Notes	No comment on adverse effects, guided self-help used as approximation to full CBT for pure vs CBT comparison
Allocation concealment	A

Study	**Carter 2003**
Methods	RCT Type of randomisation: restricted randomisation procedure using random permuted blocks of three people Concealment of allocation: yes ITT analysis: yes Blinding of assessor: both outcome and participant Dropouts described: yes Baseline comparability: yes except waitlist had significantly higher frequency of purging which was co-varied for Length of follow-up: none
Participants	Number randomised: 85 Number of dropouts: 20 Gender: women Age: mean 27 (8); range 17-53) Method of diagnosis: DSM-IV and EDE with behaviour over 1 week Diagnosis: Bulimia Nervosa Recruitment: hospital based clinic wait list Treatment setting: self help clinic at hospital Country: Canada
Interventions	Group 1: Pure self help CBT based (8 weeks) Group 2: Pure self help focused on self assertion skills (8 weeks) Group 3: waitlist (8 weeks)
Outcomes	Eating Disorders Examination (EDE) interview for binges, purges, restraint, eating, shape and weight concern; Beck Depression Inventory (BDI); Beck Anxiety Inventory (BAI); Rosenberg Self Esteem Scale; Inventory of Interpersonal Problems Follow-up: post treatment only
Notes	
Allocation concealment	A

Study	**Cooper 1995**
Methods	RCT Type of randomisation: unclear Concealment of allocation: B ITT analysis: no Blinding of assessor: yes Dropouts described: yes Baseline comparability: not described Length of follow-up: 12 months
Participants	Number randomised: 31 Number of dropouts: 4 Gender: F Age: 18-33; mean 23.8

Characteristics of included studies (*Continued*)

	Method of diagnosis: DSM-III-R Diagnosis: Bulimia Nervosa purging type Recruitment: from tertiary unit Treatment setting: tertiary unit Country: UK
Interventions	Group 1: CBT (without instruction on dietary restraint) Group 2: Exposure and Response Prevention (of vomiting) Group 3: behaviour therapy.
Outcomes	EDE; PSE; Attitudes on a VAS; BSQ; BDI; STAI Interview based
Notes	concealment uncertain (B), randomization not described, not ITT, dropouts were described, included in analyses of CBT vs and other psychotherapy
Allocation concealment	B

Study	**Durand 2003**
Methods	RCT Type of randomisation: stratified block randomisation Concealment of allocation: yes ITT analysis: yes (no crossover) Blinding of assessor: no Dropouts described: no Baseline comparability: yes A-priori power analysis: yes Length of follow-up: 6 and 9 months
Participants	Number randomised: 68 Number of dropouts: 18 at 6 months, 14 at 9 months Gender: not specified Age: self-help mean GP 28.3 (SD 6.5); specialist clinic mean 24.5 (SD 5.2) Method of diagnosis: not stated Diagnosis: Bulimia Nervosa with 48 (71%) purging type (vomiting) at baseline Recruitment: GP specialist referrals Treatment setting: General Practices and specialist eating disorder units Country: UK
Interventions	Group 1: Guided GP self-help (mean of 4.9 sessions with GP; SD 5.6; range 0-28) Group 2: Specialist clinic psychotherapy using a combination of CBT and IPT (weekly or fortnightly).
Outcomes	BITE to measure symptoms and severity of Bulimia Nervosa; Eating Disorders Examination; Beck Depression Inventory; Work, Leisure and Life questionnaire which is a self-report version of the Social Adjustment Scale; self-reported severity of their eating disorder Follow-up: nine months
Notes	Only 68 of 209 (32.5%) of referrals were randomised. Nature of specialist psychotherapy was ill-defined. Cooper "Bulimia nervosa a guide to recovery" book manual was used for guided self-help.
Allocation concealment	A

Study	**Esplen 1998**
Methods	RCT Type of randomisation: table of random numbers Concealment of allocation: B ITT analysis: no Blinding of assessor: yes

	Dropouts described: yes Baseline comparability: yes Length of follow-up: n.a.
Participants	Number randomised: 58 Number of dropouts: 8 Gender: 2 men Age: 18-44, mean 26.6 SD 6 yr Method of diagnosis: DSM-III-R Diagnosis: Bulimia Nervosa purging type Recruitment: 51/58 from tertiary referral centre Treatment setting: specialist Country: Canada
Interventions	Group 1:Guided imagery Group 2: self-monitoring
Outcomes	Self-report diaries; the Diagnostic Schedule for Eating Disorders (DSED); Eating Disorder Inventory; EAT-26; BPI; UCLA loneliness scale; Soothing Receptivity Scale
Notes	Not ITT, Authors approached for ITT data. Some patients were on antidepressands which had fialed to have an effect prior to the trial.
Allocation concealment	B

Study	**Fairburn 1986**
Methods	RCT Type of randomisation: restricted randomisation Concealment of allocation: B ITT analysis: no (no cross overs) Blinding of assessor: outcome assessment blind Dropouts described: yes Baseline comparability: randomisation outcome was assessed Length of follow-up: 12 months
Participants	Number randomised: 24 Number of dropouts: 2 Gender: women Age: >17, mean 22.9 (SD 4.4) Method of diagnosis: Russell 1979 diagnostic criteria Diagnosis: Bulimia Nervosa, ? all purging; no medication Recruitment: primary care Treatment setting: tertiary settings Country: UK
Interventions	Group 1: CBT for Bulimia Nervosa (CBT-BN) Group 2: short-term focal psychotherapy
Outcomes	Global (EDE) score; frequency of binge eating (4 weeks); actual weight; Present State Examination (PSE) total symptoms score; MADRS (anxiety and depression rating scale) score; SAS (social adjustment) score
Notes	Authors approached regarding mix of purging/nonpurging, and ITT results. Authors responded to request for ITT analyses.
Allocation concealment	B

Study	**Fairburn 1991**
Methods	RCT

Characteristics of included studies (*Continued*)

	Type of randomisation: not described Concealment of allocation: B ITT analysis: no Blinding of assessor: outcome assessment blind Dropouts described: yes Baseline comparability: randomisation outcome was assessed Length of follow-up: 5 year
Participants	Number randomised: 66 Number of dropouts: 13 Gender: F Age: 24.2 (all > 18) Method of diagnosis: DSM-III-R Diagnosis: Bulimia Nervosa; 9 (12%) were non-purging type Recruitment: primary and secondary sources Treatment setting: tertiary level therapists Country: UK
Interventions	Group 1: CBT for Bulimia Nervosa CBT-BN (18-week) Group 2: Behaviour therapy Group 3: Interpersonal psychotherapy
Outcomes	Eating Disorder Examination subscales and global score; binge eating frequency; BSI score; Beck Depression Inventory (BDI); self-esteem scale; social adjustment scale; weight
Notes	Data not in publication for ITT analysis because of high dropout rate from behaviour therapy group, authors responded to request for data.
Allocation concealment	B

Study	**Freeman 1988**
Methods	RCT Type of randomisation: Table of random numbers Concealment of allocation: ITT analysis: yes Blinding of assessor: n.a. Dropouts described: yes Baseline comparability: yes Length of follow-up: unclear
Participants	Number randomised: 112 Number of dropouts:31 Gender: women Age: mean 24.2 (SD 5.6) Method of diagnosis: DSM-III-R Diagnosis: Bulimia Nervosa purging type Recruitment: Treatment setting: secondary but with 'relatively inexperienced' therapists Country: UK
Interventions	Group 1: CBT Group 2: Behaviour Therapy Group 3: psychoeducation Group 4: wait list
Outcomes	BITE; EAT; Eating Disorders Inventory; Self-esteem; MA depression scale; Snaith scale; weekly bingeing
Notes	Randomization method was by a table of random numbers, concealment unclear, outcome self-report only non-blinded, ITT analysis, dropouts described, multiple sources of referral, all purging, Authors very helpfully responded to letter of inquiry and put much effort into trying to extract old data

Characteristics of included studies (*Continued*)

Allocation concealment	B

Study	**Garner 1993**
Methods	RCT Type of randomisation: Randomization altered sometimes according to therapist availability Concealment of allocation: C ITT analysis: no Blinding of assessor: none Dropouts described: yes Baseline comparability: yes Length of follow-up: none
Participants	Number randomised: 50 Number of dropouts: 10 Gender: F Age: 1: 23.7 SD 4.4 2: 24.6 SD 4.0 Method of diagnosis: modified DSM-III-R criteria for BN to include those with subjective and objective bulimic episodes (namely some EDNOS) Recruitment: self or doctor referral to specialist program Treatment setting: specialist Country: Canada
Interventions	Group 1: CBT for Bulimia Nervosa (CBT-BN) Group 2: supportive-expressive therapy
Outcomes	Eating Disorder Examination Interview; EAT; Eating Disorder Inventory; Symptom check-list 90 item; Social Adjustment Scale; Beck Depression Inventory (BDI)
Notes	
Allocation concealment	C

Study	**Ghaderi 2003**
Methods	RCT Type of randomisation: not described Concealment of allocation: unclear ITT analysis: yes Blinding of assessor: outcome assessment blinded Dropouts described: yes Baseline comparability: yes Length of follow-up: 6 months
Participants	Number randomised: 31 Number of dropouts: 13 Gender: not specified Age: mean 29 (SD 10.7) Method of diagnosis: DSM-IV Diagnosis: Bulimia Nervosa, Binge Eating Disorder or Eating Disorder Not Otherwise Specified Recruitment: media advertising Treatment setting: outpatient clinic - hospital or community not stated Country: Sweden
Interventions	Group 1: Pure self help (16 weeks) Group 2: Guided self help (6-8 individual sessions of 25 minutes over 16 weeks)
Outcomes	Eating Disorders Examination (EDE)

Characteristics of included studies (*Continued*)

	Eating Disorders Examination - Questionnaire (EDE-Q4); Beck Depression Inventory (BDI);Social Adjustment Scale - MOdified (SAS-M); Self Concept Questionnaire (SCQ); Body Shape Questionnaire (BSQ); Perceived Social Support (PSS); Ways of Coping Questionnaire (WCQ) Follow-up: six months
Notes	Some may argue the pure self-help was not 'pure' as questionnaires were posted back weekly to investigators
Allocation concealment	B

Study	**Griffiths 1993**
Methods	RCT Type of randomisation: unclear Concealment of allocation: ITT analysis: yes Blinding of assessor: outcome assessment not blinded Dropouts described: yes Baseline comparability: yes Length of follow-up: 9 months; six-week post-treatment taken as best post-treatment outcome period
Participants	Number randomised: 78 Number of dropouts: 15 Gender: F Age: 17-50; mean 26.9 SD 5.88 Method of diagnosis: DSM-III-R Diagnosis: Bulimia Nervosa - purging type Recruitment: media advertising (symptomatic volunteers) and tertiary referrals (83% inclusion rate) Treatment setting: specialist Country: Australia
Interventions	Group 1 : Hypnobehavioural therapy Group 2: CBT Group 3: wait-list control (Wait list group randomized to treatment so no group specific follow-up available)
Outcomes	BMI; scores on Eating Disorder Examination subscales; Eating Disorder Inventory; EAT; Frequency binge eating; GHQ; Zung
Notes	All were purging - checked with the author. Intention-to treat data supplied for abstinence and continuous measure of eating disorder symptoms, namely "days of binging" (checked for normality).
Allocation concealment	A

Study	**Hsu 2001**
Methods	RCT Type of randomisation: correct Concealment of allocation: ITT analysis: yes Blinding of assessor: outcome assessment blinded Dropouts described: no Baseline comparability: yes Length of follow-up: none reported
Participants	Number randomised: 100 Number of dropouts:27 Gender: F Age: 17-45; mean 24.2 SD 5.6 Method of diagnosis: DSM-III-R Bulimia Nervosa - 100% vomiting

	Recruitment: outpatients Treatment setting: specialist Country: US
Interventions	Group 1: Dismantled CBT (separate cognitive and nutritional components) Group 2: CBT including graded exposure Group 3: support group.
Outcomes	Weekly episodes of binging and vomiting by semi-structured interview and self-report; HDRS; Dysfunctional attitudes scale; self-control scale
Notes	All were purging. Intention-to-treat analyses were used. Authors responded to approach for further data.
Allocation concealment	B

Study	**Kenardy 2001**
Methods	RCT Type of randomisation: random number tables in blocks without knowledge of pre-treatment status Concealment of allocation: unclear ITT analysis: unclear (no dropouts) Blinding of assessor: unclear Dropouts described: no drop outs Baseline comparability: yes Length of follow-up: 3 months
Participants	Number randomised: 34 Number of dropouts: 0 Gender: women Age: CBT mean 51.77 (SD 9.59); NPT mean 57.99 (SD 11.35) Method of diagnosis: EDE Diagnosis: EDNOS Recruitment: Diabetes Education Centre at Royal Newcastle Hospital Treatment setting: not stated Country: Australia
Interventions	Group 1: Group CBT (1 session of 1.5 hours a week for 10 weeks) Group 2: group based non prescriptive therapy (10 weeks) non-directive counselling and 'focused evocative unfolding' (NPT)
Outcomes	Eating Disorders Examination interview modified for diabetes (EDE); EDE objective and subjective binging; Eating Disorders Inventory; The Well Being Questionniare Follow-up: 12 weeks
Notes	
Allocation concealment	B

Study	**Kirkley 1985**
Methods	RCT Type of randomisation: unclear Concealment of allocation: B ITT analysis: no Blinding of assessor: none Dropouts described: yes Baseline comparability: yes Length of follow-up: 3 month
Participants	Number randomised: 28 Number of dropouts: 6

	Gender: F Age: 18-46 Method of diagnosis: DSM-III Diagnosis: Bulimia Nervosa purging type (vomiting) Recruitment: community Treatment setting: specialist Country: US
Interventions	Group 1: Group CBT Group 2: group based self-monitoring (non-directive)
Outcomes	Weekly food diaries; Beck Depression Inventory (BDI); Spielberger State-Trait personality inventory; The Assertion Inventory; the EAT; the Eating Disorder Inventory
Notes	All were vomiting but those using laxatives were excluded. Not classical CBT-BN. Published data incomplete.
Allocation concealment	B

Study	**Laessle 1987**
Methods	RCT Type of randomisation: unclear Concealment of allocation: B ITT analysis: unclear Blinding of assessor: none Dropouts described: n.a. Baseline comparability: yes Length of follow-up: 3 months
Participants	Number randomised: 17small number Number of dropouts: 0 Gender: not specified Age: 1: 23.5 SD 2.3 2: 23.3 SD 7.8 Method of diagnosis: DSM-III Diagnosis: Bulimia Nervosa Recruitment: secondary Treatment setting: tertiary Country: Germany
Interventions	Group 1 Group CBT Group 2: waitlist
Outcomes	Self-reported binge frequency; BDI; Eating Disorder Inventory bulimia
Notes	Published data unable to be used.
Allocation concealment	B

Study	**Laessle 1991**
Methods	RCT Type of randomisation: unclear Concealment of allocation:B ITT analysis: no Blinding of assessor: unclear Dropouts described: yes Baseline comparability: yes Length of follow-up: 12 months
Participants	Number randomised: 55

	Number of dropouts: 7 Gender: F Age: 18-35; mean 23.8 SD 3.8 Method of diagnosis: DSM-III-R Diagnosis: Bulimia Nervosa - 90% vomiting Recruitment: secondary Treatment setting: tertiary Country: Germany & Australia
Interventions	Group 1: Nutritional Counselling Group 2: stress management.
Outcomes	Self-report monitoring; Eating Disorder Inventory; EAT; Beck Depression Inventory; STAI; an interview
Notes	ITT analyses but not reported in the published data, authors to be approached
Allocation concealment	B

Study	**Lee 1986**
Methods	RCT Type of randomisation: unclear Concealment of allocation: ITT analysis: no Blinding of assessor: none Dropouts described: yes Baseline comparability: yes Length of follow-up: 3.5 months
Participants	Number randomised: 30 Number of dropouts: 4 Gender: F Age: 27.7 SD 5.3 Method of diagnosis: DSM-III Diagnosis: Bulimia Nervosa Recruitment: community Treatment setting: specialist Country: US
Interventions	Group 1: Group CBT (6 weeks) Group 2: wait list
Outcomes	Self-reported frequency of binging and purging; Beck Depression Inventory; HRSD
Notes	Authors responded to letter of inquiry with further informatin and unpublished thesis
Allocation concealment	B

Study	**Leitenberg 1988**
Methods	RCT Type of randomisation: unclear Concealment of allocation: B ITT analysis: no Blinding of assessor: none Dropouts described: yes Baseline comparability: yes Length of follow-up: 6 months
Participants	Number randomised: 30 Number of dropouts: 12

	Gender: F Age: 18-45, mean 26 Method of diagnosis: DSM-III Diagnosis: Bulimia Nervosa Recruitment: community Treatment setting: specialist Country: US
Interventions	Group 1: Exposure and Response Prevention (in single and multiple settings) with behavioural strategies for change Group 2: modified CBT (with emphasis on Behavioural Therapy components) Group 3: wait list
Outcomes	EAT; Beck Depression Inventory; Lawson social self-esteem scale; Rosenberg self-esteem scale; body size estimations; eating records; test meals
Notes	Authors responded to inquiry about method of randomization - most likely was a table of random numbers.
Allocation concealment	B

Study	**Loeb 2000**
Methods	RCT Type of randomisation: computer generated table Concealment of allocation:B ITT analysis: yes (33% attrition rate, 55% attrition at 6 month follow-up) Blinding of assessor: none Dropouts described: yes Baseline comparability: yes Length of follow-up: 6 months
Participants	Number randomised: 40 Number of dropouts: 13 Gender: F Age: 41.5 SD9.42 Method of diagnosis: DSM-IV Diagnosis: 2 Bulimia Nervosa; 33 Binge Eating Disorder; 5 Eating Disorder Not Otherwise Specified (Bulimia Nervosa not purging and Binge Eating Disorder subthreshold types); mean BMI pre-treatment 35.77 (SD 9.03) Recruitment: media advertisement Treatment setting: specialist Country: US
Interventions	Group 1: Therapist guided CBT with "Overcoming Binge Eating" book Group 2: "pure" self-help with the same book (but participants were advised they would be followed-up, were invited to call the clinic if they had problems and were then offered further CBT as required.) Therapists were supervised weekly and were a clinical psychologist and an advanced doctoral student in clinical psychology.
Outcomes	Eating Disorders Examination - interview determined binge eating and purging rates; Eating Disorders Examination - questionnaire determined attitude and restraint severity; BDI; Rosenberg self-esteem; BSI scales
Notes	58% exclusion rate;15% final inclusion rate; Authors responded to inquiry.
Allocation concealment	A

Study	**Nauta 2000**
Methods	RCT Type of randomisation: unclear Concealment of allocation: B

	ITT analysis: yes Blinding of assessor: none Dropouts described: yes Baseline comparability: yes Length of follow-up: 6 months
Participants	Number randomised:37 Number of dropouts: 6 Gender: F Age:18-50; 38.3 SD 7.1 Method of diagnosis: DSM-IV Diagnosis: Binge Eating Disorder; all participants obese or overweight Recruitment: community based Treatment setting: specialist Country: Netherlands
Interventions	Group 1: Cognitive therapy that included self-monitoring of eating and behavioural experiments over 15 weekly sessions Group 2: behaviour treatment that included nutritional counselling
Outcomes	Eating Disorders Examination-questionnaire supplemented with interview; Beck Depression Inventory; Rosenberg Self-Esteem Scale (RSE); weight
Notes	Participants withour BED were not considered for this review. CT was superior in reducing binge frequency at follow-up but not end of treatment
Allocation concealment	B

Study	**Ordman 1985**
Methods	RCT Type of randomisation: not described Concealment of allocation: B ITT analysis: yes Blinding of assessor: no Dropouts described: n.a. Baseline comparability: yes Length of follow-up: 5 months
Participants	Number randomised:20 Number of dropouts:0 Gender: F Age:>18; mean 19.8 SD 3.2 Method of diagnosis: DSM-III Diagnosis: Bulimia Nervosa purging type Recruitment: community based Treatment setting: tertiary setting Country: US
Interventions	Group 1: CBT with Exposure Response Prevention Group 2: brief Behaviour Thearpy
Outcomes	Self-report EAT; binge questionnaire; body cathexis test; EPQ; SCL-90; Beck Depression Inventory; responses to a standardized snack; family measures
Notes	Authors approached for more data.
Allocation concealment	B

Characteristics of included studies (*Continued*)

Study	**Palmer 2002**
Methods	RCT Type of randomisation: not described Concealment of allocation: A ITT analysis: both ITT and completer analyses Blinding of assessor: no Dropouts described: no Baseline comparability: yes Length of follow-up: open and to 12 months
Participants	Number randomised:121 Number of dropouts:30 Gender: 4 male Age: min:25.8 SD 6.6 max: 27.5 SD9.6 Method of diagnosis: DSM-IV Diagnosis: Bulimia Nervosa, Binge Eating Disorder and Eating Disorder Not Otherwise Specified Recruitment: outpatients Treatment setting: tertiary Country: UK
Interventions	Group 1: Guided self-help with minimal (one session) guidance and follow-up arranged Group 2: Guided self-help with face-to-face guidance Group 3: Guided self-help with telephone guidance Group 4: wait-list (At follow-up participants were offered full therapy as required)
Outcomes	Eating Disorders Examination (percent change on 3 scales - objective bulimic episodes, self-induced vomiting and the global score); Abstinence (absence of both binging and vomiting for a month before assessment); self-report measures not reported
Notes	Authors approached for more data and data by diagnostic groups. Some patients were taking an antidepressant. These were randomly allocated to the groups to ensure an even distribution. A sensitivily analysis was conducted of relevant meta-analyses with this study removed because of possible enhancment of the psychotherapy with medication biasing results.
Allocation concealment	A

Study	**Peterson 1998**
Methods	RCT Type of randomisation: randomisation of groups not individuals with intervention group run first then wait-list group collected at end Concealment of allocation: B ITT analysis: yes (no cross over) Blinding of assessor: no Dropouts described: no Baseline comparability: yes Length of follow-up: none
Participants	Number randomised: 61 Number of dropouts: 8 Gender: women Age: 18-65; mean 42.4 Method of diagnosis: DSM-IV Diagnosis: Binge Eating Disorder Recruitment: media advertising Treatment setting: secondary referral centre Country: USA
Interventions	Group 1: Group based CBT (therapist was a PhD psychologist trained in CBT)

Characteristics of included studies (*Continued*)

	Group 2: partial self-help with specialist guidance Group 3: structured self-help with groups lead by participants Group 4: wait list
Outcomes	Self-report binge frequency
Notes	Authors responded to request for information - randomisation by groups except the first which was a therapist lead group, wait-list groups were collected at the end predictors of outcome evaluated in separate report (2000) & binge eating frequency at baseline was predictive
Allocation concealment	B

Study	**Safer 2001**
Methods	RCT Type of randomisation: shuffling envelopes and unclear if random numbering used Concealment of allocation: A ITT analysis: no Blinding of assessor: none Dropouts described: yes Baseline comparability: yes Length of follow-up: none
Participants	Number randomised:31 Number of dropouts:3 Gender: F Age: 18-65; mean 34 SD 11 Method of diagnosis: Modified DSM-IV criteria to include those with one binge-purge episode per week Diagnosis: Bulimia Nervosa purging type Recruitment: range of settings Treatment setting: specialist Country: US
Interventions	Group 1: Dilectical behaviour therapy Group 2: wait list
Outcomes	Eating Disorder Examination interview; Beck Depression Inventory (BDI); Multi-dimensional personality scale; Positive & Negative Affect Schedule, Rosenberg Self-Esteem Scale
Notes	Authors responded to questions about clarification of method of randomization and request for further (and normalized) data.
Allocation concealment	A

Study	**Sundgot-Borgen 2002**
Methods	RCT Type of randomisation: table of random numbers Concealment of allocation: not reported ITT analysis: no Blinding of assessor: no Dropouts described: yes Baseline comparability: yes Length of follow-up: 18 months
Participants	Number randomised:64 Number of dropouts: 5 Gender: not specified Age: 18-29 Method of diagnosis: DSM-IV

Characteristics of included studies (*Continued*)

	Diagnosis: Bulimia Nervosa all purging Recruitment: outpatients Treatment setting:specialist Country:Norway
Interventions	Group 1: Group CBT Group 2: nutritional counselling Group 3: physical exercise Group 4: wait list
Outcomes	DSM-IV bulimic symptoms (interview and self-report- unclear); Eating Disorder Inventory subscale scores
Notes	Authors responded to approach for more information (the end of treatment data for wait-list control group not reported in published paper).
Allocation concealment	B

Study	**Telch 1990**
Methods	RCT Type of randomisation: unclear Concealment of allocation: B ITT analysis: no Blinding of assessor: none Dropouts described: yes Baseline comparability: yes Length of follow-up: 2.5 months
Participants	Number randomised: 44 Number of dropouts:4 Gender: F Age: 25-61; mean 42.6 SD 8.4 Method of diagnosis: DSM-III-R (would be similar to DSM-IV Binge Eating Disorder) Diagnosis: Bulimia Nervosa non purging type Recruitment: community Treatment setting: specialist Country: US
Interventions	Group 1: CBT with behavioural focus (10 weekly group sessions) Group 2: wait list
Outcomes	Eating Disorders Inventory; EAT; Three factor eating inventory (TFEI); self-report 7-day calender recall; Beck Depression Inventory (BDI)
Notes	Authors to be approached for ITT data and method of randomization
Allocation concealment	B

Study	**Thackwray 1993**
Methods	RCT Type of randomisation: unclear Concealment of allocation: B ITT analysis: unclear Blinding of assessor: no Dropouts described: no Baseline comparability: yes Length of follow-up: 6 months
Participants	Number randomised: 47 Number of dropouts: 8

	Gender: F Age: 15-62; mean 31.3 SD 10.41, median 30 Method of diagnosis: DSM-III-R Diagnosis: Bulimia Nervosa purging type Recruitment: community Treatment setting: specialist Country: US
Interventions	Group 1: CBT Group 2: Behaviour Therapy Group 3: nonspecific therapy
Outcomes	Self-report of binge frequency
Notes	Authors were written to for data to include in analyses as numbers per group was not provided in the published paper.
Allocation concealment	B

Study	**Treasure 1996**
Methods	RCT Type of randomisation: odd and even numbers on raffle tickets in an envelope with random envelopes placed by unit administer (not involved in trial) into assessment packs Concealment of allocation: numbers concealed in envelopes in treatment packs; envelopes opened toward end of assessment by psychiatrist ITT analysis: not reported in published paper but obtained for meta-analysis Blinding of assessor: no Dropouts described: yes Baseline comparability: yes Length of follow-up: unclear
Participants	Number randomised:110 Number of dropouts:29 Gender: not specified Age: means of 25.9 & 25.6 SDs of 6.3 & 5.5 Method of diagnosis: ICD-10 Diagnosis: Bulimia Nervosa and atypical Bulimia Nervosa Recruitment: outpatients Treatment setting:tertiary Country:UK
Interventions	Group 1: CBT Group 2: Self help manual only (not "pure self-help" as they were told their progress would be reveiwed at 8 weeks when they were then offered CBT as required). Group 3: wait list (all 8-week duration; therapists had specialist expertise).
Outcomes	Investigator based rating scale of bulimic symptoms, SCID, and self-ratings on the BITE
Notes	Authors responded to letter of inquiry and provided raw data for analyses. Binge frequency was in ordinal data so was rank normalised before being entered in meta-analysis.
Allocation concealment	A

Study	**Walsh 1997**
Methods	RCT Type of randomisation: not described Concealment of allocation: B ITT analysis: yes Blinding of assessor: yes

Characteristics of included studies (*Continued*)

	Dropouts described: yes Baseline comparability: yes Length of follow-up: n.a.
Participants	Number randomised:120 (47 relevant to this review's comparisons) Number of dropouts: unclear Gender: F Age:18-45 Group 1 25.8 SD 4.4 Group 2 26.9 SD 4.3 Method of diagnosis: DSM-III-R Diagnosis: Bulimia Nervosa purging type Recruitment: community Treatment setting:specialist Country: US
Interventions	Group 1: CBT for Bulimia Nervosa (CBT-BN) & placebo Group 2: supportive psychotherapy & placebo Other groups had active medication
Outcomes	self-report diary ; BSQ; EAT; BDI; SCL-90; 3-factor eating questionnaire (TFEQ); EDE
Notes	
Allocation concealment	B

Study	**Wilfley 1993**
Methods	RCT Type of randomisation: unclear Concealment of allocation: B ITT analysis: yes Blinding of assessor: no Dropouts described: yes Baseline comparability: yes Length of follow-up: 12 months
Participants	Number randomised: 56 Number of dropouts: 9 Gender: F Age:27-64 mean 44.3 SD 8.3 Method of diagnosis: DSM-III-R Diagnosis: DSM-III-R Bulimia Nervosa non purging type Recruitment: community Treatment setting:specialist Country:US
Interventions	Group 1: Group CBT Group 2: Group IPT
Outcomes	7-day calender recall; self-report BDI, IIP, Rosenberg self-esteem, TFEQ
Notes	Diagnostic criteria as described more closely resemble DSM-IV Binge eating disorder
Allocation concealment	B

Study	**Wilfley 2002**
Methods	RCT Type of randomisation: block randomisation Concealment of allocation: unclear ITT analysis: ITT and completer analyses done (no cross over) Blinding of assessor: not in all cases

Characteristics of included studies (*Continued*)

	Dropouts described: yes Baseline comparability: yes Length of follow-up: 12 months
Participants	Number randomised: 162 Number of dropouts: 16 Gender: 83%F Age: CBT mean 45.6 (SD 9.6); IPT mean 44.9 (SD 9.6) Method of diagnosis: DSM-IV research criteria Diagnosis: Binge Eating Disorder; BMI 27-48 (all obese or overweight) Recruitment: media advertising Treatment setting: University Based Eating Disorders Clinics Country: USA
Interventions	Group 1: CBT Group 2: IPT (both groups received twenty 90 minute weekly group sessions and 3 individual sessions) (The integrity of treatment was assessed rigorously)
Outcomes	Eating Disorders Examination (12th ed) for frequency of binge days over 4 weeks, dietary restraint, eating, shape and weight concern; Structured Clinical Interview for DSM-IIIR (SCID); SCL-90-R (GSI and depression subscale score); BMI; Rosenberg Self-Esteem Questionnaire; Social Adjustment Scale (SAS) Follow-up: one year
Notes	Study was of people overweight or obese so may not be generalisable to all those with BED. To be accomodated by a sentisitivity analysis. Authors approached for further information and ITT data.
Allocation concealment	B

Study	**Wilson 1986**
Methods	RCT Type of randomisation: not described Concealment of allocation: B ITT analysis: calculated from raw data Blinding of assessor: none Dropouts described: no Baseline comparability: randomisation outcome not assessed Length of follow-up: 12 months
Participants	Number randomised:17 Number of dropouts: 4 Gender: F Age: group 1 21.9 SD 4.8 group 2 19.2 SD 1.3; 13 College students Method of diagnosis: Fairburn criteria Diagnosis: Bulimia Nervosa purging type Recruitment: community Treatment setting: specialist Country: USA
Interventions	Group 1: Cognitive restructuring Group 2: Exposure Response Prevention-vomiting with Behavioural Therapy
Outcomes	Self-monitoring of binge and purging frequency
Notes	USA, community volunteers, tertiary treatment, included in CBT vs CBR-ERP analyses although not strictly this
Allocation concealment	B

Characteristics of included studies (*Continued*)

Study	**Wilson 1991**
Methods	RCT Type of randomisation: not described Concealment of allocation: B ITT analysis: partial only Blinding of assessor: yes Dropouts described: yes Baseline comparability: randomisation outcome was assessed Length of follow-up: 12-months
Participants	Number randomised: 22 Number of dropouts: 5 Gender: not specified Age: group 1 19.8 mean group 2 21.6 mean; 14 College students Method of diagnosis: modified criteria Diagnosis: Bulimia Nervosa purging and Eating Disorder Not Otherwise Specified Recruitment: community Treatment setting: specialist Country: US
Interventions	Group 1: CBT with Exposure Response Prevention Group 2: CBT without Exposure Response Prevention
Outcomes	SCL-90, EDE, EDI, BDI, SAS, ESQ, RSE
Notes	Authors approached for numbers randomized per group
Allocation concealment	B

Study	**Wolf 1992**
Methods	RCT Type of randomisation: unclear Concealment of allocation: B ITT analysis: no Blinding of assessor: no Dropouts described: yes Baseline comparability: yes Length of follow-up: <3 months
Participants	Number randomised: 42 Number of dropouts: 1 Gender: F Age:group 1 26.5 SD 8.1 gorup 2 25.1 SD 8.6 waitlist 27.8 SD 6.6 Method of diagnosis: DSM-III-R Diagnosis: Bulimia Nervosa Recruitment: community Treatment setting: specialist Country: US
Interventions	Group 1: CBT Group 2: Behavioural Therapy Group 3: Wait list
Outcomes	Eating Disorders Inventory; Symptom Check List (SCL)-90; BPM
Notes	Not ITT for wait list group, outcome based on self-report i.e. non blinded, authors approached for abstinence rates
Allocation concealment	B

Characteristics of included studies (*Continued*)

Characteristics of excluded studies

Agras 1992	Trial to be used in pharmacotherapy versus psychotherapy review.
Agras 1995	This study was not truely randomized. As well outcome was by self-report only.
Bergh 2002	This was RCT of a treatment for 19 anorexia nervosa and 13 bulimia nervosa patients. The treatment incorporated computer supported feedback to participants on satiety ratings. Controls (wait-list) were however not assessed until they entered the treatment programme so no pre-treatment comparative data is available. The duration in the control group was variable (7.1-21.6 months). The treatment approach was predomiantly nutritional/behavioural. No comparative data of treatment outcome is presented.
Berry 1989	There was not 100% random assignment, outcome by self-report only (not blinded)
Beumont 1997	Interesting study of augmentation of nutritional counselling with fluoxetine but not relevant to analyses in this review.
Blouin 1994	No control group
Blouin 1995	No control group, not an evaluation of treatment
Brambilla 1995	Not a randomized controlled trial.
Crosby 1998	Comparing differing intensitities of applying CBT, interesting study but not relevant to aims of this review
Davis 1990	no control group
Davis 1992	no control group
Davis 1999	An interesting RCT comparing brief group psychoeducation (PE) followed by, and not followed by, individual cognitive-behavioural therapy (PE+ CBT) in the treatment of bulimia nervosa. PE+CBT produced significantly higher remission rates for binge eating than PE alone but there were no differences in measures of nonspecific psychopathology. The trial did not compare CBT alone with the PE and PE was not compared with a waiting list so the study could not be entered into any of the analyses of this review. If more studies emerge comparing 'classical' CBT with guided self-help psychoeducation (the therapy the PE most closely resembles) then this trial may be entered.
Devlin 2000	No control group; weight loss with combined CBT and pharmacotherapy was not sustained at 18 month follow-up.
Dixon 1984	no control group
Eldredge 1997	control group was from a prior study i.e. not random, analyses were not applicable to this review, were evaluating extending CBT among initial nonresponders
Fahy 1993	Interesting study of augmentation of psychotherapy with d-fenfluramine but not relevant to analyses in theis review.
Fairburn 1992b	A review
Fichter 1991	Interesting study evaluating augmentation of CBT with fluoxetine but not relevant to analyses in this review.
Frommer 1987	No control group
Garner 1987	A review
Garvin 1997	Subject number was only 9, no control group.
Goldbloom 1997	Trial to be used in pharmacotherapy review.
Goodrick 1998	The study did not used a criterion for binge eating disorder, but a cut-off score on the Binge Eating Scale, thus not ensuring all had a diagnosis of binge eating disorder.
Gray 1990	control group not random, outcome assessments self-report only with waitlist control
Griffiths 1989	Not an RCT.
Griffiths 1990	Report of non-completers from an open trial.
Griffiths 1996	A review
Herzog 1991a	There was no control group

Characteristics of excluded studies (*Continued*)

Huon 1985	Control group not randomized.
Jager 1996	only 52% of subjects truely randomized
Johnson 1984	The subject number only 6, nonblind outcome assessment, subjects used as own controls
Johnson 1993	There was no control group
Keefe 1983	not randomized, treatment for obesity not binge eating
Leitenberg 1994	Trial to be used in pharmacotherapy review.
Levine 1996	Evaluation of exercise, interesting but not relevant to current metaanalyses
Liedtke 1991	not randomized
Loro 1981	Descriptive study, not a treatment study
Mitchell 1990	Trial to be used in pharmacotherapy versus psychotherapy review.
Mitchell 1991	A review
Mitchell 2001	This trial is applicable to the pharmacotherapy versus psychotherapy review. The trial found no significant diffrerence in efficacy with unguided manual based CBT versus a placebo medication.
Olmsted 1991	not randomized
Pendleton 2002	Wrong question for this review. The results supported enhancement of CBT with an exercise program.
Ricca 2001	Wrong question for this review. Applicable to the pharamacotherapy review.
Romano 2002	Trial of maintenance of change in continued treatment with pharmacotherapy (fluoxetine).
Rossiter 1988	Non-randomised group comparisons.
Russell 1987	Interesting comparison of individual supportive therapy with family therapy in anorexia nervosa, also included a subgroup of bulimia nervosa. Single study of its type - not relevant therefore to metaanalysis.
Russell 1992	Review
Schmidt 1989	The study compares two forms of exposure plus response prevention - does not address the aims or hypotheses of the review.
Steel 2000	Uncontrolled naturalistic study addressing the issue of higher rates of non-completion in "real-world" settings for CBT in bulimia nervosa. Non-completers were found to have a significantly higher levels of depression and hopelessness and elevated levels of external locus of control, compared to completers. Study limited by small numbers (n=32) and coming from a single treatment centre.
Thiels 1998	An interesting study but the findings were difficult to interpret findings and were not relevant to the questions in this review. A less therapist intensive CBT was compared with classical CBT. Both were delivered by specialist trained therapists.
Treasure 1999	In this study CBT was enhanced by the inclusion of a motivational enhancement therapy (MET) over four weeks at the beginning of treatment. There were no differences in reduction of bulimic symptoms. This study may be included in future versions of this review as more studies emerge of attempts to enhance CBT.
Ventura 1999	A trial testing a modification of CBT utilising a psychobiological model with CBT in women with BN-purging type. The study supported the modification but is not included as it is not relevant to analyses in this present review. It may be included in future editions if analyses are added of enhancement therapies.
Walsh 2000	This is an important study of 22 people who relapsed following a trial of psychotherapy, thus not a primary study of psychotherapy efficacy. It found that more people taking fluoxetine reported one month abstinence from binging and purging than those taking placebo (5/13 vs 0/9).
Walsh 2004	This study compared 4 groups: guided self help plus placebo, fluoxetine, placebo, fluoxetine plus guided self help. Therapy was provided by physicians and nurses. The comparisons do not strictly adhere to those of this review, and 69% of 91 randomised dropped out of treatment.
Wilson 1998	A review
Winzelberg 1998	An interesting RCT using a computer-mediated self-help programme for undergraduate students without bulimia nervosa or anorexia nervosa. Suitable for a review of prevention programmes in eating disorders.

Characteristics of excluded studies (*Continued*)

Woodside 1995	not controlled study

ADDITIONAL TABLES

Table 01. CBT versus wait-list control outcome in trials of bulimia nervosa (DSM-IIIR/IV)

Comparison	number of studies	n participants	SMD [Fixed]	RR [Random]	95% C.I.
Number not abstinent	5	2.4		0.67	0.58;0.78
Mean bulimic symptom scores	9	323	-1.01		-1.33;-0.68
Number not completing trial	9	331		1.89	0.83;4.30
Mean depression scores	6	223	-1-0.80		-1.22;-0.37

Table 02. Comparisons of CBT vs any other psychotherapy in trials of DSMIIIR/IV BN

Comparison	N studies	N participants	SMD [Fixed]	RR {Random]	95% C.I.
N not abstinent (100% binge free)	7	484		0.83	0.71;0.97
Mean bulimic symptom scores	8	514	-0.14		-0.38;0.07
N non-completers	8	523		1.00	0.63;1.58
Depression scores at end of treatment	7	242	-0.48		-0.98;0.02
General psychiatric symptom scores	5	165	-0.14		-0.45;0.17
Mean weight (or BMI) at end of treatment	5	190	0.13		-0.15;0.42

Table 03. Other psychotherapies versus a waitlist control for DSMIIIR/IV bulimia nervosa

Comparison	N trials	N participants	SMD [Fixed]	RR [Random]	95% C.I.
Number not abstinent	4	162		0.65	0.54;0.77
Bulimic symptom scores	5	2.6	-1.22		-1.52;-0.92
Number of non-completers	4	162		1.40	0.63;3.10

ANALYSES

Comparison 01. CBT compared to a wait list or no treatment control group

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Number of people who did not show remission (100% binge free)	7	286	Relative Risk (Random) 95% CI	0.68 [0.58, 0.80]
06 Mean score of bulimic symptoms at end of trial where scores were not different between groups at start of tria	11	402	Standardised Mean Difference (Random) 95% CI	-0.95 [-1.22, -0.68]
07 Number if people who dropped out due to adverse events	1	44	Relative Risk (Random) 95% CI	Not estimable

08 Number of people who dropped out due to any reason	11	413	Relative Risk (Random) 95% CI	1.46 [0.77, 2.78]
10 Mean end of trial depression scores	6	223	Standardised Mean Difference (Random) 95% CI	-0.80 [-1.22, -0.37]
11 Mean end trial scores of general psychiatric symptoms	0	0	Standardised Mean Difference (Random) 95% CI	Not estimable
13 Mean scores end of trial of psychosocial/interpersonal functioning	1	38	Standardised Mean Difference (Random) 95% CI	0.35 [-0.29, 1.00]
16 Mean weight at end of therapy (BMI where possible)	3	155	Standardised Mean Difference (Random) 95% CI	0.33 [0.00, 0.66]

Comparison 02. CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared)

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Number of people who did not show remission (100% binge free)	8	646	Relative Risk (Random) 95% CI	0.81 [0.72, 0.92]
06 Mean bulimic symptom scores at end of treatment	11	752	Standardised Mean Difference (Random) 95% CI	-0.19 [-0.33, -0.05]
07 Number if people who dropped out due to adverse events	2	73	Relative Risk (Random) 95% CI	1.00 [0.07, 14.21]
08 Number of people who dropped out due to any reason	11	769	Relative Risk (Random) 95% CI	1.04 [0.74, 1.47]
10 Mean depression scores at end of treatment	9	449	Standardised Mean Difference (Random) 95% CI	-0.40 [-0.81, 0.00]
12 Mean end of trial scores of general psychiatric symptoms	7	371	Standardised Mean Difference (Random) 95% CI	-0.13 [-0.35, 0.09]
14 Mean differences in psycho-social functioning at end of treatment	6	529	Standardised Mean Difference (Random) 95% CI	-0.15 [-0.32, 0.03]
16 Mean weight at end of therapy (BMI where possible)	7	382	Standardised Mean Difference (Random) 95% CI	0.14 [-0.06, 0.35]

Comparison 03. Guided self-help CBTcompared to pure self-help CBT.

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Number of people who did not show remission (100% binge free)	3	140	Relative Risk (Random) 95% CI	0.91 [0.71, 1.17]
06 Average difference in bulimic symptoms at end of treatment	3	140	Standardised Mean Difference (Random) 95% CI	-0.42 [-0.76, -0.09]
07 Number if people who dropped out due to adverse events	1	58	Relative Risk (Random) 95% CI	12.14 [0.73, 200.82]
08 Number of people who dropped out due to any reason	3	140	Relative Risk (Random) 95% CI	1.54 [0.54, 4.41]
10 Average difference in depression at end of treatment	2	109	Standardised Mean Difference (Random) 95% CI	-0.19 [-0.56, 0.19]

12 Average difference in general psychiatric symptoms at end of treatment	2	109	Standardised Mean Difference (Random) 95% CI	-1.13 [-3.07, 0.81]
14 Average difference in psycho-social functioning at end of therapy	0	0	Standardised Mean Difference (Random) 95% CI	Not estimable
15 Mean weight at end of therapy (BMI where possible)	3	140	Standardised Mean Difference (Random) 95% CI	-0.03 [-0.36, 0.31]

Comparison 04. CBT versus CBT augmented by ERP

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Number of people who did not show remission (100% binge free)	3	168	Relative Risk (Random) 95% CI	0.87 [0.65, 1.16]
02 Mean scores on bulimic rating scale at end of treatment	4	149	Standardised Mean Difference (Random) 95% CI	0.19 [-0.23, 0.62]
03 Number of noncompleters due to any reason	4	193	Relative Risk (Random) 95% CI	0.97 [0.32, 2.89]
04 Mean scores on depression rating scale at end of treatment	4	145	Standardised Mean Difference (Random) 95% CI	0.38 [-0.27, 1.02]
05 Mean scores on psychiatric symptom rating scale at end of treatment	0	0	Standardised Mean Difference (Random) 95% CI	Not estimable
06 Mean weight at end of therapy	0	0	Standardised Mean Difference (Random) 95% CI	Not estimable

Comparison 05. Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Number of people who did not show remission (100% binge free)	4	162	Relative Risk (Random) 95% CI	0.65 [0.54, 0.77]
02 Mean scores on binge and/or purge frequency at end of treatment	5	206	Standardised Mean Difference (Random) 95% CI	-1.22 [-1.52, -0.92]
04 Mean scores on depression rating scale at end of treatment.	3	101	Standardised Mean Difference (Random) 95% CI	-0.58 [-0.98, -0.18]
05 Mean scores on general psychiatric symptom rating scales at end of treatment	0	0	Standardised Mean Difference (Random) 95% CI	Not estimable
06 Number of treatment non-completers	4	162	Relative Risk (Random) 95% CI	1.40 [0.63, 3.10]
07 Numbers not completing due to adverse events.	0	0	Relative Risk (Random) 95% CI	Not estimable
08 Mean weight at end of therapy	0	0	Standardised Mean Difference (Random) 95% CI	Not estimable
09 EDE restraint scale scores at end of treatment	1	29	Standardised Mean Difference (Random) 95% CI	-0.80 [-1.56, -0.04]

Comparison 06. Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.)

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Number of people who did not show remission (100% binge free)	3	118	Relative Risk (Random) 95% CI	0.94 [0.61, 1.45]
02 Mean scores of bulimic symptoms at end of trial where scores were not different between groups at start	4	163	Standardised Mean Difference (Random) 95% CI	-1.29 [-2.93, 0.36]
03 Number of people who dropped out due to adverse events	0	0	Relative Risk (Random) 95% CI	Not estimable
04 Number of people who dropped out due to any reason	3	162	Relative Risk (Random) 95% CI	0.68 [0.32, 1.43]
05 Mean end of trial depression scores	1	48	Standardised Mean Difference (Random) 95% CI	0.22 [-0.35, 0.79]
06 Mean end of trial scores on measures of social or interpersonal functioning	1	48	Standardised Mean Difference (Random) 95% CI	-0.02 [-0.59, 0.55]
07 Mean weight at end of therapy (Body Mass Index where possible)	1	48	Standardised Mean Difference (Random) 95% CI	-0.65 [-1.24, -0.07]

Comparison 07. CBT versus a component of CBT only - most commonly a behavioural component (B.T.)

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Number of people who did not remit (were not 100% binge free)	5	205	Relative Risk (Random) 95% CI	0.66 [0.53, 0.82]
02 Mean binge eating frequency at end of therapy	2	67	Standardised Mean Difference (Random) 95% CI	-0.42 [-0.91, 0.07]
03 Mean depression scores at end of therapy	2	70	Standardised Mean Difference (Random) 95% CI	-0.49 [-0.97, -0.01]
04 Number of subjects not completing therapy	5	188	Relative Risk (Random) 95% CI	0.76 [0.38, 1.52]
05 Body mass index or weight at end of treatment	2	76	Standardised Mean Difference (Random) 95% CI	0.16 [-0.29, 0.61]
06 Mean general psychiatric symptom severity scores at end of treatment	1	50	Standardised Mean Difference (Random) 95% CI	-0.27 [-0.82, 0.29]
07 Mean social adjustment scores at end of therapy	1	50	Standardised Mean Difference (Random) 95% CI	-0.05 [-0.60, 0.51]
08 Mean bulimic symptom severity scores at end of treatment (eg Global EDE score)	2	80	Standardised Mean Difference (Random) 95% CI	-0.60 [-1.05, -0.15]

Comparison 08. Guided (non specialist) self-help versus waiting-list control group

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Number not abstinent from binge eating at end of treatment	2	119	Relative Risk (Random) 95% CI	0.71 [0.36, 1.42]
02 Mean bulimic symptom scores (where possible binge eating weekly frequency) at end of treatment	1	58	Standardised Mean Difference (Random) 95% CI	-1.31 [-1.89, -0.73]
03 Mean depression symptom scores on any depression rating scale at end of treatment	1	57	Standardised Mean Difference (Random) 95% CI	1.96 [1.32, 2.60]
04 Mean interpersonal and social functioning on any appropriate rating scale at end of treatment.	1	57	Standardised Mean Difference (Random) 95% CI	0.15 [-0.37, 0.67]
05 Mean general psychiatric symptom severity scores on any appropriate scale at end of treatment.	1	58	Standardised Mean Difference (Random) 95% CI	-0.77 [-1.31, -0.23]
06 Number of participants withdrawing because of an adverse event.	0	0	Standardised Mean Difference (Random) 95% CI	Not estimable
07 Number of participants who withdrew from the study for any reason..	2	110	Relative Risk (Random) 95% CI	1.52 [0.14, 16.60]
08 Mean weight (BMI where possible) at end of treatment.	1	58	Standardised Mean Difference (Random) 95% CI	-0.03 [-0.55, 0.49]

Comparison 09. Guided self-help versus specialist psychotherapy (CBT &/or IPT)

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Non-Abstinence rates for binge eating at end of therapy	1	81	Relative Risk (Random) 95% CI	1.05 [0.91, 1.22]
02 Mean end of trial bulimic symptoms (where possible binge eating frequency)	2	149	Standardised Mean Difference (Random) 95% CI	-0.13 [-0.82, 0.57]
03 Number of people who dropped out for any reason	2	149	Relative Risk (Random) 95% CI	1.13 [0.39, 3.24]
04 Mean scores on depression rating scale at end of treatment	2	122	Standardised Mean Difference (Random) 95% CI	-0.28 [-0.79, 0.24]
05 Mean end of trial scores of psychosocial or interpersonal functioning	1	37	Standardised Mean Difference (Random) 95% CI	0.00 [-1.18, 1.18]
06 Mean scores on EDE restraint scale	1	68	Standardised Mean Difference (Random) 95% CI	0.15 [-0.33, 0.62]
07 6 month objective bulimic episodes	1	50	Standardised Mean Difference (Random) 95% CI	0.24 [-0.32, 0.80]
08 6 month interpersonal functioning	1	50	Standardised Mean Difference (Random) 95% CI	0.00 [-0.56, 0.56]

09 6 month depression scores	2	131	Standardised Mean Difference (Random) 95% CI	-0.32 [-0.82, 0.19]

Comparison 10. Pure self help versus waitlist control group

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Mean end of trial interpersonal functioning	1	57	Standardised Mean Difference (Random) 95% CI	0.15 [-0.37, 0.67]
02 Mean end of trial depression scores	1	57	Standardised Mean Difference (Random) 95% CI	0.47 [-0.06, 1.00]
03 Number of dropouts due to any reason	3	187	Relative Risk (Random) 95% CI	0.75 [0.42, 1.35]
04 Number of people who did not show remission	3	187	Relative Risk (Random) 95% CI	0.79 [0.53, 1.17]
05 Mean difference in binge frequency	3	181	Standardised Mean Difference (Random) 95% CI	-0.40 [-0.73, -0.07]

INDEX TERMS

Medical Subject Headings (MeSH)

Adult; Bulimia [*therapy]; Cognitive Therapy; *Cognitive Therapy; Psychotherapy; *Psychotherapy; Randomized Controlled Trials

MeSH check words

Female; Humans; Male

COVER SHEET

Title

Psychotherapy for bulimia nervosa and binging

Authors

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Contribution of author(s)

Dr Hay and Dr Bacaltchuk together prepared the protocol for this review. Dr Hay was responsible for the data searches and Dr Bacaltchuk for quality checking of data extraction and entering. The review was written by Dr Hay and Dr Bacaltchuk provided statistical advice and commentary on the findings and the conclusions. Dr Stefano has provided invaluable advice on the updated review, including checking of data and commentary on the additional new studies since the review was first published.

Issue protocol first published

1998/2

Review first published

1999/4

Date of most recent amendment

11 November 2005

Date of most recent SUBSTANTIVE amendment

21 April 2004

What's New

The review has been updated with the assistance of Sarah Hetrick and others from the Cochrane Advanced Reviewers Support (CARS) Pilot Project, an initiative of the Australasian Cochrane Centre. Unpublished data has been entered from the Sundgot-Bergen trial. The search has been updated to June 2004, and four new trials entered. A new criterion for study exclusion has been added, namely studies with >50% non-completion rates are excluded.

Data has been re-entered by diagnostic groups (bulimia nervosa, binge eating disorder, eating disorder not otherwise specified and combined diagnoses). The comparison "CBT in

	guided or unguided forms compared to pure self-help CBT" has been simplified to "Guided self -help CBT compared to pure self-help CBT" reflecting the state of the field. The CARS assistance was with entry and data extraction on all newly included studies (which was double checked by PH), standardisation of the Table of Included Studies (checked by PH) entry of new outcome data with new subgroups (checked by PH) and re-entry of data by diagnostic groups (checked by PH). Jan 2005: minor updates to information in the Table of Included Studies
Date new studies sought but none found	Information not supplied by author
Date new studies found but not yet included/excluded	Information not supplied by author
Date new studies found and included/excluded	Information not supplied by author
Date authors' conclusions section amended	28 August 2002
Contact address	Prof Phillipa Hay Professor and Head Psychiatry, School of Medicine James Cook University Townsville Queensland 4811 AUSTRALIA E-mail: phillipa.hay@jcu.edu.au Tel: + 61 7 47814111 Fax: +61 7 47816986
DOI	10.1002/14651858.CD000562.pub2
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Editorial group	Cochrane Depression, Anxiety and Neurosis Group
Editorial group code	HM-DEPRESSN

GRAPHS AND OTHER TABLES

Analysis 01.01. Comparison 01 CBT compared to a wait list or no treatment control group, Outcome 01 Number of people who did not show remission (100% binge free)

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 01 CBT compared to a wait list or no treatment control group

Outcome: 01 Number of people who did not show remission (100% binge free)

Study	CBT n/N	Control group n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Agras 1989	12/22	18/19		11.7	0.58 [0.39, 0.86]
Griffiths 1993	13/23	27/28		13.1	0.59 [0.41, 0.84]
Lee 1986	11/15	14/15		14.9	0.79 [0.56, 1.10]
Telch 1990	15/23	21/21		17.2	0.65 [0.48, 0.88]
Wilfley 1993	13/18	20/20		18.1	0.72 [0.54, 0.96]
Subtotal (95% CI)	101	103		75.0	0.67 [0.58, 0.78]
Total events: 64 (CBT), 100 (Control group)					
Test for heterogeneity chi-square=2.37 df=4 p=0.67 I?? =0.0%					
Test for overall effect z=5.32 p<0.00001					
02 Binge Eating Disorder					
Peterson 1998	5/16	10/11		4.0	0.34 [0.16, 0.73]
Subtotal (95% CI)	16	11		4.0	0.34 [0.16, 0.73]
Total events: 5 (CBT), 10 (Control group)					
Test for heterogeneity: not applicable					
Test for overall effect z=2.79 p=0.005					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (CBT), 0 (Control group)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Treasure 1996	21/28	24/27		21.0	0.84 [0.66, 1.09]
Subtotal (95% CI)	28	27		21.0	0.84 [0.66, 1.09]
Total events: 21 (CBT), 24 (Control group)					
Test for heterogeneity: not applicable					
Test for overall effect z=1.32 p=0.2					
Total (95% CI)	145	141		100.0	0.68 [0.58, 0.80]
Total events: 90 (CBT), 134 (Control group)					
Test for heterogeneity chi-square=8.82 df=6 p=0.18 I?? =32.0%					
Test for overall effect z=4.77 p<0.00001					

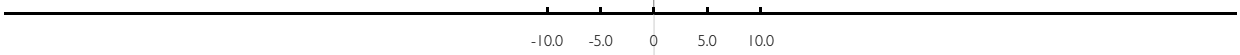
Analysis 01.06. Comparison 01 CBT compared to a wait list or no treatment control group, Outcome 06 Mean score of bulimic symptoms at end of trial where scores were not different between groups at start of tria

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 01 CBT compared to a wait list or no treatment control group

Outcome: 06 Mean score of bulimic symptoms at end of trial where scores were not different between groups at start of tria

Study	CBT N	CBT Mean(SD)	Control group N	Control group Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Agras 1989	17	2.80 (6.30)	18	13.60 (10.70)		8.8	-1.19 [-1.92, -0.47]
Freeman 1988	32	1.30 (3.40)	20	3.70 (3.60)		11.6	-0.68 [-1.25, -0.10]
Griffiths 1993	23	1.57 (1.83)	28	4.39 (2.31)		10.8	-1.32 [-1.93, -0.70]
Lee 1986	14	3.70 (4.00)	14	10.10 (17.50)		8.4	-0.49 [-1.24, 0.26]
Leitenberg 1988	12	5.13 (6.50)	12	16.27 (15.70)		7.2	-0.90 [-1.74, -0.05]
Sundgot-Borgen 2002	14	2.01 (2.33)	15	5.08 (2.09)		7.5	-1.35 [-2.17, -0.53]
Telch 1990	19	0.32 (0.75)	21	4.14 (2.43)		8.1	-2.04 [-2.82, -1.26]
Wilfley 1993	18	2.20 (2.40)	20	3.90 (1.70)		9.9	-0.81 [-1.47, -0.14]
Wolf 1992	15	5.30 (5.10)	11	7.10 (4.60)		8.0	-0.36 [-1.14, 0.43]
Subtotal (95% CI)	164		159			80.3	-1.01 [-1.33, -0.68]
Test for heterogeneity chi-square=14.76 df=8 p=0.06 I?? =45.8%							
Test for overall effect z=6.06 p<0.00001							
02 Binge Eating Disorder							
Peterson 1998	16	3.30 (3.60)	11	6.60 (4.50)		7.8	-0.80 [-1.61, 0.00]
Subtotal (95% CI)	16		11			7.8	-0.80 [-1.61, 0.00]
Test for heterogeneity: not applicable							
Test for overall effect z=1.96 p=0.05							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Treasure 1996	28	44.23 (27.04)	24	61.40 (24.97)		11.9	-0.65 [-1.21, -0.09]
Subtotal (95% CI)	28		24			11.9	-0.65 [-1.21, -0.09]
Test for heterogeneity: not applicable							
Test for overall effect z=2.27 p=0.02							
Total (95% CI)	208		194			100.0	-0.95 [-1.22, -0.68]
Test for heterogeneity chi-square=16.14 df=10 p=0.10 I?? =38.0%							
Test for overall effect z=6.85 p<0.00001							



Analysis 01.07. Comparison 01 CBT compared to a wait list or no treatment control group, Outcome 07 Number if people who dropped out due to adverse events

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 01 CBT compared to a wait list or no treatment control group

Outcome: 07 Number if people who dropped out due to adverse events

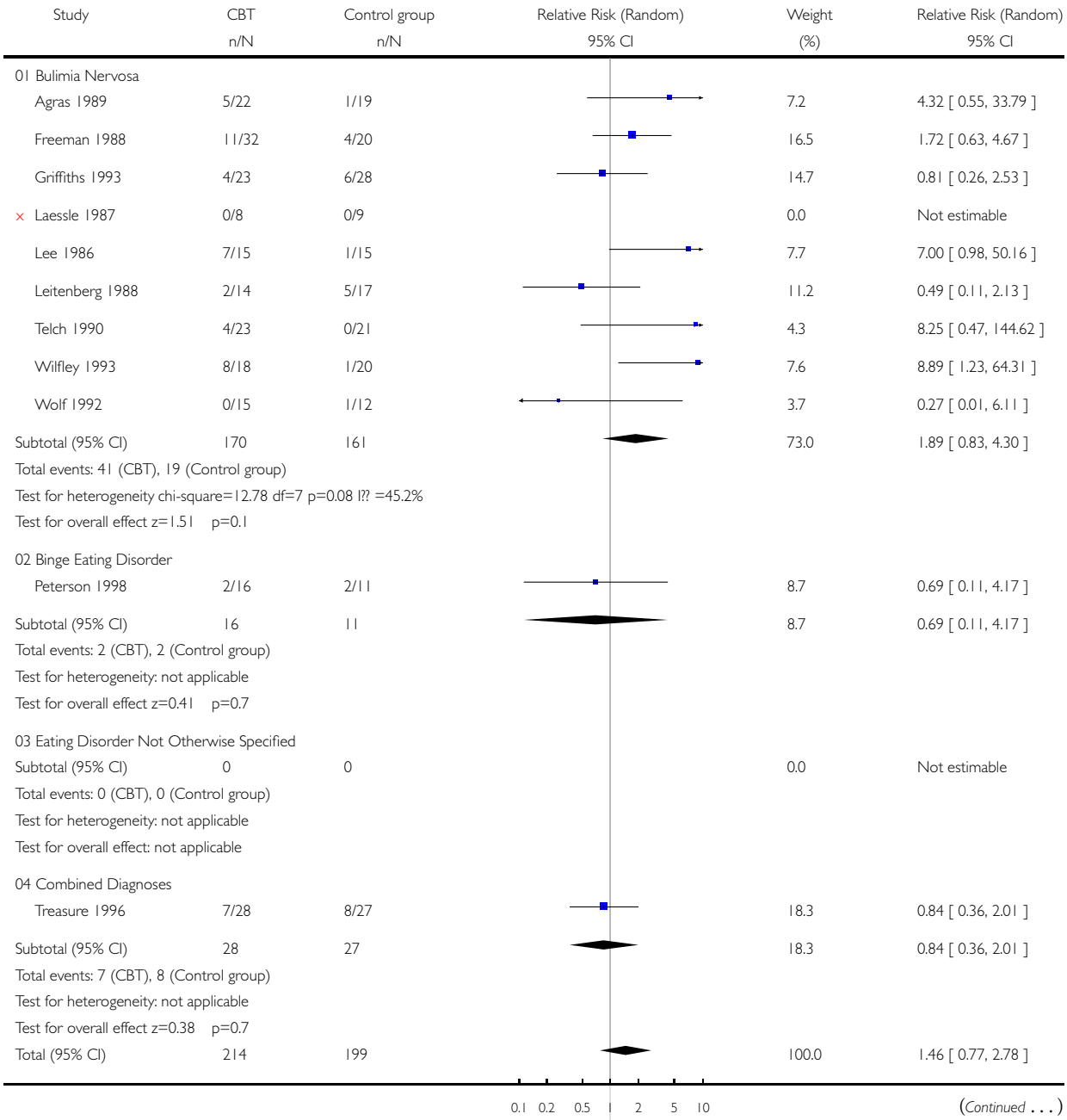
Study	CBT n/N	Control group n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
× Telch 1990	0/23	0/21		0.0	Not estimable
Subtotal (95% CI)	23	21		0.0	Not estimable
Total events: 0 (CBT), 0 (Control group)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
02 Binge Eating Disorder					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (CBT), 0 (Control group)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (CBT), 0 (Control group)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (CBT), 0 (Control group)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
Total (95% CI)	23	21		0.0	Not estimable
Total events: 0 (CBT), 0 (Control group)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					

Analysis 01.08. Comparison 01 CBT compared to a wait list or no treatment control group, Outcome 08 Number of people who dropped out due to any reason

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 01 CBT compared to a wait list or no treatment control group

Outcome: 08 Number of people who dropped out due to any reason



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Study	CBT n/N	Control group n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
Total events: 50 (CBT), 29 (Control group)					
Test for heterogeneity chi-square=15.18 df=9 p=0.09 I?? =40.7%					
Test for overall effect z=1.15 p=0.3					

0.1 0.2 0.5 1 2 5 10

Analysis 01.10. Comparison 01 CBT compared to a wait list or no treatment control group, Outcome 10 Mean end of trial depression scores

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 01 CBT compared to a wait list or no treatment control group

Outcome: 10 Mean end of trial depression scores

Study	CBT N	CBT Mean(SD)	Control group N	Control group Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Agras 1989	17	7.10 (7.70)	18	18.80 (8.30)		15.7	-1.43 [-2.18, -0.67]
Carter 1998	34	0.70 (0.60)	24	1.20 (0.70)		20.4	-0.77 [-1.31, -0.23]
Lee 1986	14	11.50 (9.40)	14	17.00 (14.30)		15.7	-0.44 [-1.19, 0.31]
Leitenberg 1988	12	8.67 (7.20)	12	24.60 (9.60)		11.8	-1.81 [-2.79, -0.84]
Telch 1990	19	8.22 (7.12)	21	11.67 (7.35)		18.3	-0.47 [-1.10, 0.16]
Wilfley 1993	18	12.30 (6.80)	20	14.20 (7.50)		18.1	-0.26 [-0.90, 0.38]
Subtotal (95% CI)	114		109			100.0	-0.80 [-1.22, -0.37]
Test for heterogeneity chi-square=11.34 df=5 p=0.05 I?? =55.9%							
Test for overall effect z=3.64 p=0.0003							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	114		109			100.0	-0.80 [-1.22, -0.37]
Test for heterogeneity chi-square=11.34 df=5 p=0.05 I?? =55.9%							
Test for overall effect z=3.64 p=0.0003							

-10.0 -5.0 0 5.0 10.0

Analysis 01.11. Comparison 01 CBT compared to a wait list or no treatment control group, Outcome 11 Mean end trial scores of general psychiatric symptoms

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 01 CBT compared to a wait list or no treatment control group

Outcome: 11 Mean end trial scores of general psychiatric symptoms

Study	CBT N Mean(SD)	Control group N Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
Total (95% CI)	0	0		0.0	Not estimable
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					

Analysis 01.13. Comparison 01 CBT compared to a wait list or no treatment control group, Outcome 13 Mean scores end of trial of psychosocial/interpersonal functioning

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 01 CBT compared to a wait list or no treatment control group

Outcome: 13 Mean scores end of trial of psychosocial/interpersonal functioning

Study	CBT N	CBT Mean(SD)	Control group N	Control group Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Wilfley 1993	18	1.40 (0.50)	20	1.20 (0.60)		100.0	0.35 [-0.29, 1.00]
Subtotal (95% CI)	18		20			100.0	0.35 [-0.29, 1.00]
Test for heterogeneity: not applicable							
Test for overall effect z=1.08 p=0.3							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	18		20			100.0	0.35 [-0.29, 1.00]
Test for heterogeneity: not applicable							
Test for overall effect z=1.08 p=0.3							

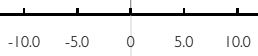
Analysis 01.16. Comparison 01 CBT compared to a wait list or no treatment control group, Outcome 16 Mean weight at end of therapy (BMI where possible)

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 01 CBT compared to a wait list or no treatment control group

Outcome: 16 Mean weight at end of therapy (BMI where possible)

Study	CBT N	CBT Mean(SD)	Control group N	Control group Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Lee 1986	25	25.90 (6.23)	55	23.58 (4.89)		47.8	0.43 [-0.05, 0.91]
Subtotal (95% CI)	25		55			47.8	0.43 [-0.05, 0.91]
Test for heterogeneity: not applicable							
Test for overall effect z=1.77 p=0.08							
02 Binge Eating Disorder							
Peterson 1998	14	200.07 (55.72)	11	204.67 (60.43)		17.5	-0.08 [-0.87, 0.71]
Subtotal (95% CI)	14		11			17.5	-0.08 [-0.87, 0.71]
Test for heterogeneity: not applicable							
Test for overall effect z=0.19 p=0.8							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Treasure 1996	25	25.90 (6.23)	25	23.50 (5.95)		34.8	0.39 [-0.17, 0.95]
Subtotal (95% CI)	25		25			34.8	0.39 [-0.17, 0.95]
Test for heterogeneity: not applicable							
Test for overall effect z=1.36 p=0.2							
Total (95% CI)	64		91			100.0	0.33 [0.00, 0.66]
Test for heterogeneity chi-square=1.23 df=2 p=0.54 I?? =0.0%							
Test for overall effect z=1.94 p=0.05							



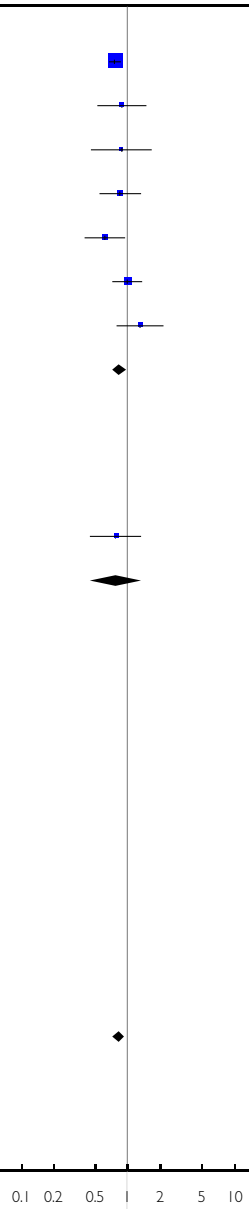
Analysis 02.01. Comparison 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared), Outcome 01 Number of people who did not show remission (100% binge free)

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared)

Outcome: 01 Number of people who did not show remission (100% binge free)

Study	CBT n/N	Comparison therapy n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Agras 2000	78/110	103/110		52.0	0.76 [0.67, 0.86]
Cooper 1995	9/15	11/16		5.3	0.87 [0.51, 1.48]
Fairburn 1991	10/25	11/24		3.6	0.87 [0.46, 1.67]
Griffiths 1993	13/23	18/27		7.3	0.85 [0.54, 1.33]
Hsu 2001	13/27	19/24		7.4	0.61 [0.39, 0.95]
Walsh 1997	19/25	17/22		13.7	0.98 [0.72, 1.35]
Wilfley 1993	13/18	10/18		5.8	1.30 [0.79, 2.15]
Subtotal (95% CI)	243	241		95.1	0.83 [0.71, 0.97]
Total events: 155 (CBT), 189 (Comparison therapy)					
Test for heterogeneity chi-square=7.71 df=6 p=0.26 I?? =22.1%					
Test for overall effect z=2.40 p=0.02					
02 Binge Eating Disorder					
Wilfley 2002	17/81	22/81		4.9	0.77 [0.44, 1.34]
Subtotal (95% CI)	81	81		4.9	0.77 [0.44, 1.34]
Total events: 17 (CBT), 22 (Comparison therapy)					
Test for heterogeneity: not applicable					
Test for overall effect z=0.91 p=0.4					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (CBT), 0 (Comparison therapy)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Comined Diagnoses					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (CBT), 0 (Comparison therapy)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
Total (95% CI)	324	322		100.0	0.81 [0.72, 0.92]
Total events: 172 (CBT), 211 (Comparison therapy)					
Test for heterogeneity chi-square=7.69 df=7 p=0.36 I?? =9.0%					
Test for overall effect z=3.23 p=0.001					



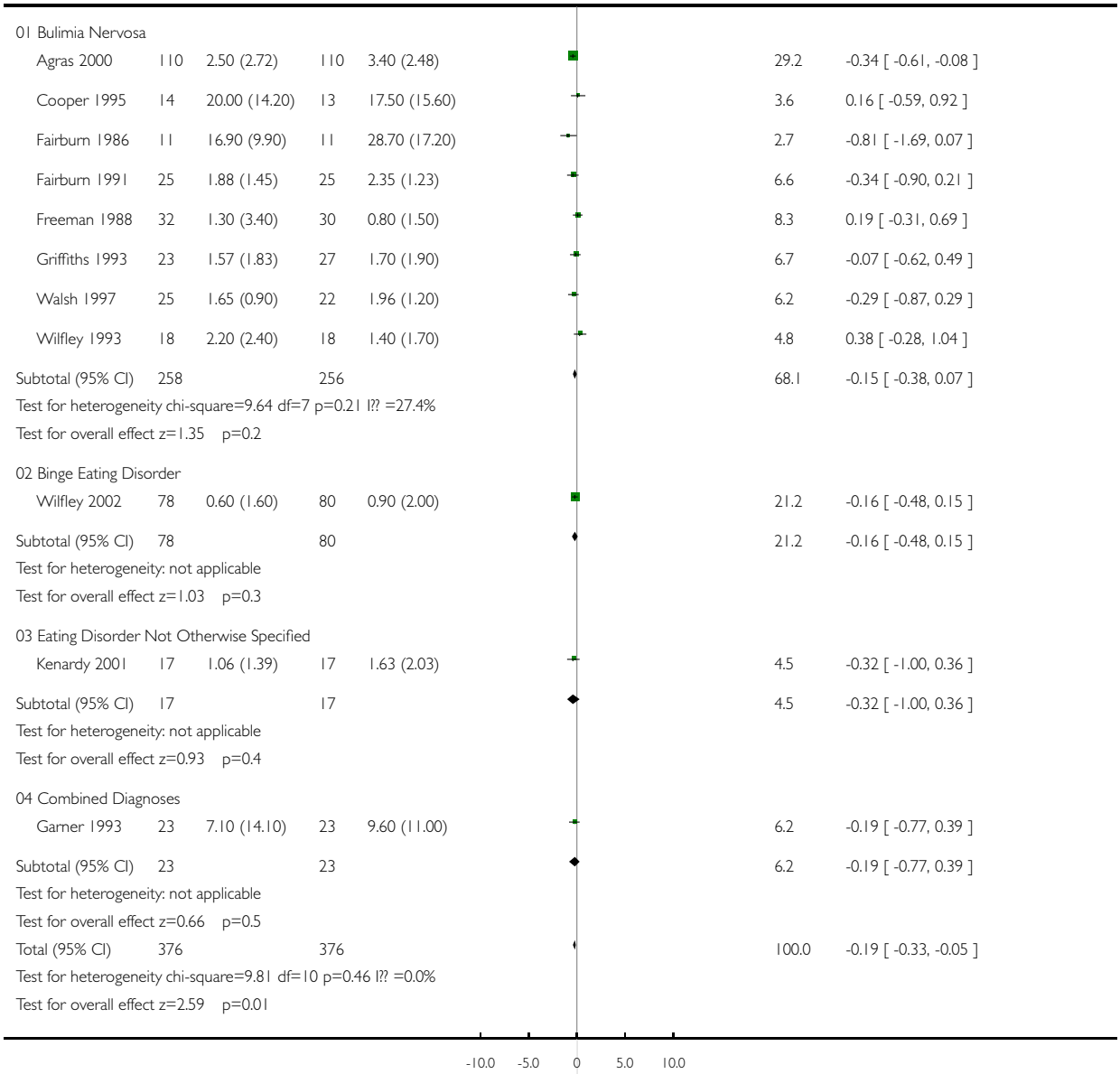
Analysis 02.06. Comparison 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared), Outcome 06 Mean bulimic symptom scores at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared)

Outcome: 06 Mean bulimic symptom scores at end of treatment

Study	CBT N	CBT Mean(SD)	Comparison therapy N	Comparison therapy Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Agras 2000	110	2.50 (2.72)	110	3.40 (2.48)		29.2	-0.34 [-0.61, -0.08]
Cooper 1995	14	20.00 (14.20)	13	17.50 (15.60)		3.6	0.16 [-0.59, 0.92]
Fairburn 1986	11	16.90 (9.90)	11	28.70 (17.20)		2.7	-0.81 [-1.69, 0.07]
Fairburn 1991	25	1.88 (1.45)	25	2.35 (1.23)		6.6	-0.34 [-0.90, 0.21]
Freeman 1988	32	1.30 (3.40)	30	0.80 (1.50)		8.3	0.19 [-0.31, 0.69]
Griffiths 1993	23	1.57 (1.83)	27	1.70 (1.90)		6.7	-0.07 [-0.62, 0.49]
Walsh 1997	25	1.65 (0.90)	22	1.96 (1.20)		6.2	-0.29 [-0.87, 0.29]
Wilfley 1993	18	2.20 (2.40)	18	1.40 (1.70)		4.8	0.38 [-0.28, 1.04]
Subtotal (95% CI)	258		256			68.1	-0.15 [-0.38, 0.07]
Test for heterogeneity chi-square=9.64 df=7 p=0.21 I?? =27.4%							
Test for overall effect z=1.35 p=0.2							
02 Binge Eating Disorder							
Wilfley 2002	78	0.60 (1.60)	80	0.90 (2.00)		21.2	-0.16 [-0.48, 0.15]
Subtotal (95% CI)	78		80			21.2	-0.16 [-0.48, 0.15]
Test for heterogeneity: not applicable							
Test for overall effect z=1.03 p=0.3							
03 Eating Disorder Not Otherwise Specified							
Kenardy 2001	17	1.06 (1.39)	17	1.63 (2.03)		4.5	-0.32 [-1.00, 0.36]
Subtotal (95% CI)	17		17			4.5	-0.32 [-1.00, 0.36]
Test for heterogeneity: not applicable							
Test for overall effect z=0.93 p=0.4							
04 Combined Diagnoses							
Garner 1993	23	7.10 (14.10)	23	9.60 (11.00)		6.2	-0.19 [-0.77, 0.39]
Subtotal (95% CI)	23		23			6.2	-0.19 [-0.77, 0.39]
Test for heterogeneity: not applicable							
Test for overall effect z=0.66 p=0.5							
Total (95% CI)	376		376			100.0	-0.19 [-0.33, -0.05]
Test for heterogeneity chi-square=9.81 df=10 p=0.46 I?? =0.0%							
Test for overall effect z=2.59 p=0.01							



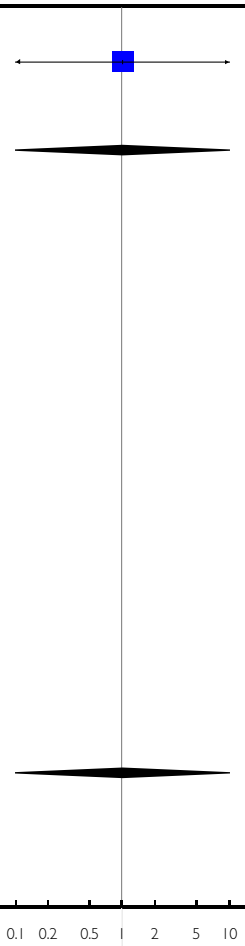
Analysis 02.07. Comparison 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared), Outcome 07 Number if people who dropped out due to adverse events

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared)

Outcome: 07 Number if people who dropped out due to adverse events

Study	CBT n/N	Comparison therapy n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Fairburn 1986	1/12	1/12		100.0	1.00 [0.07, 14.21]
× Fairburn 1991	0/25	0/24		0.0	Not estimable
Subtotal (95% CI)	37	36		100.0	1.00 [0.07, 14.21]
Total events: 1 (CBT), 1 (Comparison therapy)					
Test for heterogeneity: not applicable					
Test for overall effect z=0.00 p=1					
02 Binge Eating Disorder					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (CBT), 0 (Comparison therapy)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (CBT), 0 (Comparison therapy)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (CBT), 0 (Comparison therapy)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
Total (95% CI)	37	36		100.0	1.00 [0.07, 14.21]
Total events: 1 (CBT), 1 (Comparison therapy)					
Test for heterogeneity: not applicable					
Test for overall effect z=0.00 p=1					



Analysis 02.08. Comparison 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared), Outcome 08 Number of people who dropped out due to any reason

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared)

Outcome: 08 Number of people who dropped out due to any reason

Study	CBT n/N	Comparison therapy n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Agras 2000	32/110	26/110		30.3	1.23 [0.79, 1.92]
Cooper 1995	2/15	2/16		3.4	1.07 [0.17, 6.64]
Fairburn 1986	1/12	1/12		1.6	1.00 [0.07, 14.21]
Fairburn 1991	4/25	3/24		5.6	1.28 [0.32, 5.13]
Freeman 1988	11/32	11/30		18.4	0.94 [0.48, 1.83]
Griffiths 1993	4/23	6/27		8.0	0.78 [0.25, 2.44]
Hsu 2001	3/27	11/24		7.8	0.24 [0.08, 0.77]
Wilfley 1993	8/18	2/18		5.5	4.00 [0.98, 16.30]
Subtotal (95% CI)	262	261		80.6	1.00 [0.63, 1.58]
Total events: 65 (CBT), 62 (Comparison therapy)					
Test for heterogeneity chi-square=10.64 df=7 p=0.15 I?? =34.2%					
Test for overall effect z=0.00 p=1					
02 Binge Eating Disorder					
Wilfley 2002	9/81	7/81		11.0	1.29 [0.50, 3.29]
Subtotal (95% CI)	81	81		11.0	1.29 [0.50, 3.29]
Total events: 9 (CBT), 7 (Comparison therapy)					
Test for heterogeneity: not applicable					
Test for overall effect z=0.52 p=0.6					
03 Eating Disorder Not Otherwise Specified					
× Kenardy 2001	0/17	0/17		0.0	Not estimable
Subtotal (95% CI)	17	17		0.0	Not estimable
Total events: 0 (CBT), 0 (Comparison therapy)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Garner 1993	5/25	5/25		8.3	1.00 [0.33, 3.03]
Subtotal (95% CI)	25	25		8.3	1.00 [0.33, 3.03]
Total events: 5 (CBT), 5 (Comparison therapy)					
Test for heterogeneity: not applicable					
Test for overall effect z=0.00 p=1					
Total (95% CI)	385	384		100.0	1.04 [0.74, 1.47]

0.1 0.2 0.5 1 2 5 10

(*Continued . . .*)

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Study	CBT n/N	Comparison therapy n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
Total events: 79 (CBT), 74 (Comparison therapy)					
Test for heterogeneity chi-square=10.81 df=9 p=0.29 I?? =16.8%					
Test for overall effect z=0.23 p=0.8					

Analysis 02.10. Comparison 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared), Outcome 10 Mean depression scores at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared)

Outcome: 10 Mean depression scores at end of treatment

Study	CBT N	CBT Mean(SD)	Comparison therapy N	Comparison therapy Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Bossert 1989	8	27.10 (17.50)	6	36.60 (31.10)		7.5	-0.37 [-1.44, 0.70]
Cooper 1995	15	10.20 (9.40)	16	21.80 (8.30)		10.0	-1.28 [-2.06, -0.49]
Fairburn 1986	12	13.83 (9.97)	12	18.42 (9.91)		9.7	-0.45 [-1.26, 0.37]
Fairburn 1991	21	10.14 (10.69)	21	12.48 (10.77)		11.7	-0.21 [-0.82, 0.39]
Griffiths 1993	25	34.09 (1.31)	23	35.82 (1.30)		11.5	-1.30 [-1.93, -0.68]
Walsh 1997	25	6.80 (7.00)	22	10.20 (11.00)		12.0	-0.37 [-0.95, 0.21]
Wilfley 1993	18	12.30 (6.80)	18	8.40 (6.70)		11.1	0.56 [-0.10, 1.23]
Subtotal (95% CI)	124		118			73.4	-0.48 [-0.98, 0.02]
Test for heterogeneity chi-square=20.92 df=6 p=0.002 I?? =71.3%							
Test for overall effect z=1.89 p=0.06							
02 Binge Eating Disorder							
Wilfley 2002	78	34.80 (7.90)	80	33.60 (8.60)		14.5	0.14 [-0.17, 0.46]
Subtotal (95% CI)	78		80			14.5	0.14 [-0.17, 0.46]
Test for heterogeneity: not applicable							
Test for overall effect z=0.91 p=0.4							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Comined Diagnoses							
Garner 1993	25	7.50 (10.60)	24	13.40 (9.50)		12.1	-0.58 [-1.15, 0.00]
Subtotal (95% CI)	25		24			12.1	-0.58 [-1.15, 0.00]

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Study	CBT N	CBT Mean(SD)	Comparison therapy N	Comparison therapy Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
Test for heterogeneity: not applicable							
Test for overall effect z=1.97 p=0.05							
Total (95% CI)	227		222		◆	100.0	-0.40 [-0.81, 0.00]
Test for heterogeneity chi-square=30.96 df=8 p=0.0001 I?? =74.2%							
Test for overall effect z=1.96 p=0.05							

-10.0 -5.0 0 5.0 10.0

Analysis 02.12. Comparison 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared), Outcome 12 Mean end of trial scores of general psychiatric symptoms

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared)

Outcome: 12 Mean end of trial scores of general psychiatric symptoms

Study	CBT N	CBT Mean(SD)	Comparison therapy N	Comparison therapy Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Bossert 1989	8	46.60 (20.90)	6	53.60 (23.80)	■	4.3	-0.30 [-1.36, 0.77]
Cooper 1995	15	10.30 (7.70)	16	9.30 (8.30)	■	9.4	0.12 [-0.58, 0.83]
Fairburn 1986	11	6.90 (6.70)	11	12.80 (8.00)	■	6.3	-0.77 [-1.64, 0.10]
Fairburn 1991	25	0.77 (0.83)	25	0.85 (0.65)	■	14.6	-0.11 [-0.66, 0.45]
Griffiths 1993	25	0.25 (9.81)	23	0.62 (10.91)	■	14.1	-0.04 [-0.60, 0.53]
Subtotal (95% CI)	84		81		◆	48.8	-0.14 [-0.45, 0.17]
Test for heterogeneity chi-square=2.75 df=4 p=0.60 I?? =0.0%							
Test for overall effect z=0.89 p=0.4							
02 Binge Eating Disorder							
Wilfley 2002	78	32.80 (8.80)	80	32.30 (8.50)	■	37.6	0.06 [-0.25, 0.37]
Subtotal (95% CI)	78		80		◆	37.6	0.06 [-0.25, 0.37]
Test for heterogeneity: not applicable							
Test for overall effect z=0.36 p=0.7							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Garner 1993	25	0.60 (0.70)	23	1.00 (0.60)	■	13.5	-0.60 [-1.18, -0.02]
Subtotal (95% CI)	25		23		◆	13.5	-0.60 [-1.18, -0.02]

-10.0 -5.0 0 5.0 10.0

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Study	CBT N	CBT Mean(SD)	Comparison therapy N	Comparison therapy Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
Test for heterogeneity: not applicable							
Test for overall effect z=2.03 p=0.04							
Total (95% CI)	187		184			100.0	-0.13 [-0.35, 0.09]
Test for heterogeneity chi-square=6.66 df=6 p=0.35 I?? =9.9%							
Test for overall effect z=1.13 p=0.3							

-10.0 -5.0 0 5.0 10.0

Analysis 02.14. Comparison 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared), Outcome 14 Mean differences in psycho-social functioning at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared)

Outcome: 14 Mean differences in psycho-social functioning at end of treatment

Study	CBT N	CBT Mean(SD)	Comparison therapy N	Comparison therapy Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Agras 2000	110	2.01 (0.58)	110	2.08 (0.49)		41.8	-0.13 [-0.39, 0.13]
Fairburn 1986	12	1.99 (0.42)	12	2.28 (0.73)		4.4	-0.47 [-1.28, 0.34]
Fairburn 1991	25	2.27 (0.68)	25	2.30 (0.45)		9.5	-0.05 [-0.61, 0.50]
Wilfley 1993	18	1.40 (0.50)	18	1.20 (0.60)		6.7	0.35 [-0.30, 1.01]
Subtotal (95% CI)	165		165			62.4	-0.09 [-0.31, 0.13]
Test for heterogeneity chi-square=2.69 df=3 p=0.44 I?? =0.0%							
Test for overall effect z=0.81 p=0.4							
02 Binge Eating Disorder							
Wilfley 2002	78	1.80 (0.50)	80	1.90 (0.50)		29.9	-0.20 [-0.51, 0.11]
Subtotal (95% CI)	78		80			29.9	-0.20 [-0.51, 0.11]
Test for heterogeneity: not applicable							
Test for overall effect z=1.25 p=0.2							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Garner 1993	20	1.90 (0.50)	21	2.10 (0.50)		7.6	-0.39 [-1.01, 0.23]
Subtotal (95% CI)	20		21			7.6	-0.39 [-1.01, 0.23]
Test for heterogeneity: not applicable							

-10.0 -5.0 0 5.0 10.0

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Study	CBT N	CBT Mean(SD)	Comparison therapy N	Comparison therapy Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
Test for overall effect z=1.24 p=0.2							
Total (95% CI)	263		266			100.0	-0.15 [-0.32, 0.03]
Test for heterogeneity chi-square=3.67 df=5 p=0.60 I?? =0.0%							
Test for overall effect z=1.67 p=0.1							

-10.0 -5.0 0 5.0 10.0

Analysis 02.16. Comparison 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared), Outcome 16 Mean weight at end of therapy (BMI where possible)

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 02 CBT compared to any other psychotherapy (if there was more than one the therapy least like CBT was compared)

Outcome: 16 Mean weight at end of therapy (BMI where possible)

Study	CBT N	CBT Mean(SD)	Comparison therapy N	Comparison therapy Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Cooper 1995	15	98.80 (8.80)	16	99.20 (10.50)		8.2	-0.04 [-0.74, 0.66]
Fairburn 1986	11	102.40 (11.30)	11	96.10 (7.30)		5.5	0.64 [-0.22, 1.50]
Fairburn 1991	21	23.28 (4.29)	21	22.22 (3.27)		11.0	0.27 [-0.34, 0.88]
Griffiths 1993	25	21.70 (1.84)	23	22.06 (2.19)		12.6	-0.18 [-0.74, 0.39]
Walsh 1997	25	22.60 (2.30)	22	22.10 (2.20)		12.3	0.22 [-0.36, 0.79]
Subtotal (95% CI)	97		93			49.7	0.13 [-0.15, 0.42]
Test for heterogeneity chi-square=2.97 df=4 p=0.56 I?? =0.0%							
Test for overall effect z=0.91 p=0.4							
02 Binge Eating Disorder							
Wilfley 2002	78	37.50 (5.30)	80	37.20 (5.20)		41.8	0.06 [-0.26, 0.37]
Subtotal (95% CI)	78		80			41.8	0.06 [-0.26, 0.37]
Test for heterogeneity: not applicable							
Test for overall effect z=0.36 p=0.7							
03 Eating Disorder Not Otherwise Specified							
Kenardy 2001	17	38.98 (7.25)	17	34.65 (6.13)		8.5	0.63 [-0.06, 1.32]
Subtotal (95% CI)	17		17			8.5	0.63 [-0.06, 1.32]
Test for heterogeneity: not applicable							
Test for overall effect z=1.79 p=0.07							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							

-10.0 -5.0 0 5.0 10.0

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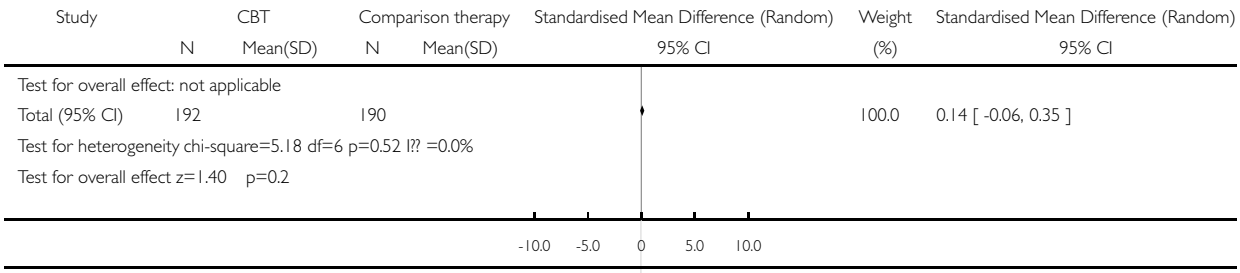


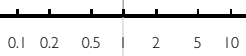
Analysis 03.01. Comparison 03 Guided self-help CBTcompared to pure self-help CBT., Outcome 01 Number of people who did not show remission (100% binge free)

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 03 Guided self-help CBTcompared to pure self-help CBT.

Outcome: 01 Number of people who did not show remission (100% binge free)

Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
02 Binge Eating Disorder					
Carter 1998	17/34	20/35		32.6	0.88 [0.56, 1.36]
Subtotal (95% CI)	34	35		32.6	0.88 [0.56, 1.36]
Total events: 17 (Treatment), 20 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect z=0.59 p=0.6					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Ghaderi 2003	12/15	12/16		44.2	1.07 [0.73, 1.56]
Loeb 2000	10/20	14/20		23.2	0.71 [0.42, 1.21]
Subtotal (95% CI)	35	36		67.4	0.91 [0.60, 1.36]
Total events: 22 (Treatment), 26 (Control)					
Test for heterogeneity chi-square=1.63 df=1 p=0.20 I?? =38.6%					
Test for overall effect z=0.47 p=0.6					
Total (95% CI)	69	71		100.0	0.91 [0.71, 1.17]
Total events: 39 (Treatment), 46 (Control)					
Test for heterogeneity chi-square=1.63 df=2 p=0.44 I?? =0.0%					
Test for overall effect z=0.72 p=0.5					



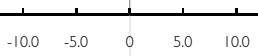
Analysis 03.06. Comparison 03 Guided self-help CBTcompared to pure self-help CBT., Outcome 06 Average difference in bulimic symptoms at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 03 Guided self-help CBTcompared to pure self-help CBT.

Outcome: 06 Average difference in bulimic symptoms at end of treatment

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
02 Binge Eating Disorder							
Carter 1998	34	2.10 (1.20)	35	2.70 (1.30)		49.1	-0.47 [-0.95, 0.00]
Subtotal (95% CI)	34		35			49.1	-0.47 [-0.95, 0.00]
Test for heterogeneity: not applicable							
Test for overall effect z=1.94 p=0.05							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Ghaderi 2003	16	8.06 (20.50)	15	11.80 (11.50)		22.5	-0.22 [-0.92, 0.49]
Loeb 2000	20	5.10 (7.38)	20	10.40 (12.97)		28.4	-0.49 [-1.12, 0.14]
Subtotal (95% CI)	36		35			50.9	-0.37 [-0.84, 0.10]
Test for heterogeneity chi-square=0.32 df=1 p=0.57 I?? =0.0%							
Test for overall effect z=1.54 p=0.1							
Total (95% CI)	70		70			100.0	-0.42 [-0.76, -0.09]
Test for heterogeneity chi-square=0.42 df=2 p=0.81 I?? =0.0%							
Test for overall effect z=2.46 p=0.01							



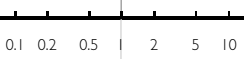
Analysis 03.07. Comparison 03 Guided self-help CBTcompared to pure self-help CBT., Outcome 07 Number if people who dropped out due to adverse events

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 03 Guided self-help CBTcompared to pure self-help CBT.

Outcome: 07 Number if people who dropped out due to adverse events

Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
02 Binge Eating Disorder					
Carter 1998	8/34	0/24		100.0	12.14 [0.73, 200.81]
Subtotal (95% CI)	34	24		100.0	12.14 [0.73, 200.81]
Total events: 8 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect z=1.74 p=0.08					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
Total (95% CI)	34	24		100.0	12.14 [0.73, 200.81]
Total events: 8 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect z=1.74 p=0.08					



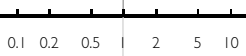
Analysis 03.08. Comparison 03 Guided self-help CBTcompared to pure self-help CBT., Outcome 08 Number of people who dropped out due to any reason

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 03 Guided self-help CBTcompared to pure self-help CBT.

Outcome: 08 Number of people who dropped out due to any reason

Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
02 Binge Eating Disorder					
Carter 1998	8/34	0/35		11.4	17.49 [1.05, 291.59]
Subtotal (95% CI)	34	35		11.4	17.49 [1.05, 291.59]
Total events: 8 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect z=1.99 p=0.05					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Ghaderi 2003	7/16	6/15		45.3	1.09 [0.48, 2.51]
Loeb 2000	7/20	6/20		43.3	1.17 [0.48, 2.86]
Subtotal (95% CI)	36	35		88.6	1.13 [0.61, 2.07]
Total events: 14 (Treatment), 12 (Control)					
Test for heterogeneity chi-square=0.01 df=1 p=0.92 I?? =0.0%					
Test for overall effect z=0.38 p=0.7					
Total (95% CI)	70	70		100.0	1.54 [0.54, 4.41]
Total events: 22 (Treatment), 12 (Control)					
Test for heterogeneity chi-square=4.64 df=2 p=0.10 I?? =56.9%					
Test for overall effect z=0.81 p=0.4					



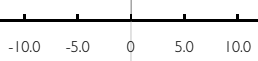
Analysis 03.10. Comparison 03 Guided self-help CBTcompared to pure self-help CBT., Outcome 10 Average difference in depression at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 03 Guided self-help CBTcompared to pure self-help CBT.

Outcome: 10 Average difference in depression at end of treatment

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
02 Binge Eating Disorder							
Carter 1998	34	0.70 (0.60)	35	0.80 (0.60)		63.4	-0.16 [-0.64, 0.31]
Subtotal (95% CI)	34		35			63.4	-0.16 [-0.64, 0.31]
Test for heterogeneity: not applicable							
Test for overall effect z=0.68 p=0.5							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Loeb 2000	20	12.65 (8.56)	20	14.65 (8.94)		36.6	-0.22 [-0.85, 0.40]
Subtotal (95% CI)	20		20			36.6	-0.22 [-0.85, 0.40]
Test for heterogeneity: not applicable							
Test for overall effect z=0.71 p=0.5							
Total (95% CI)	54		55			100.0	-0.19 [-0.56, 0.19]
Test for heterogeneity chi-square=0.02 df=1 p=0.88 I?? =0.0%							
Test for overall effect z=0.97 p=0.3							

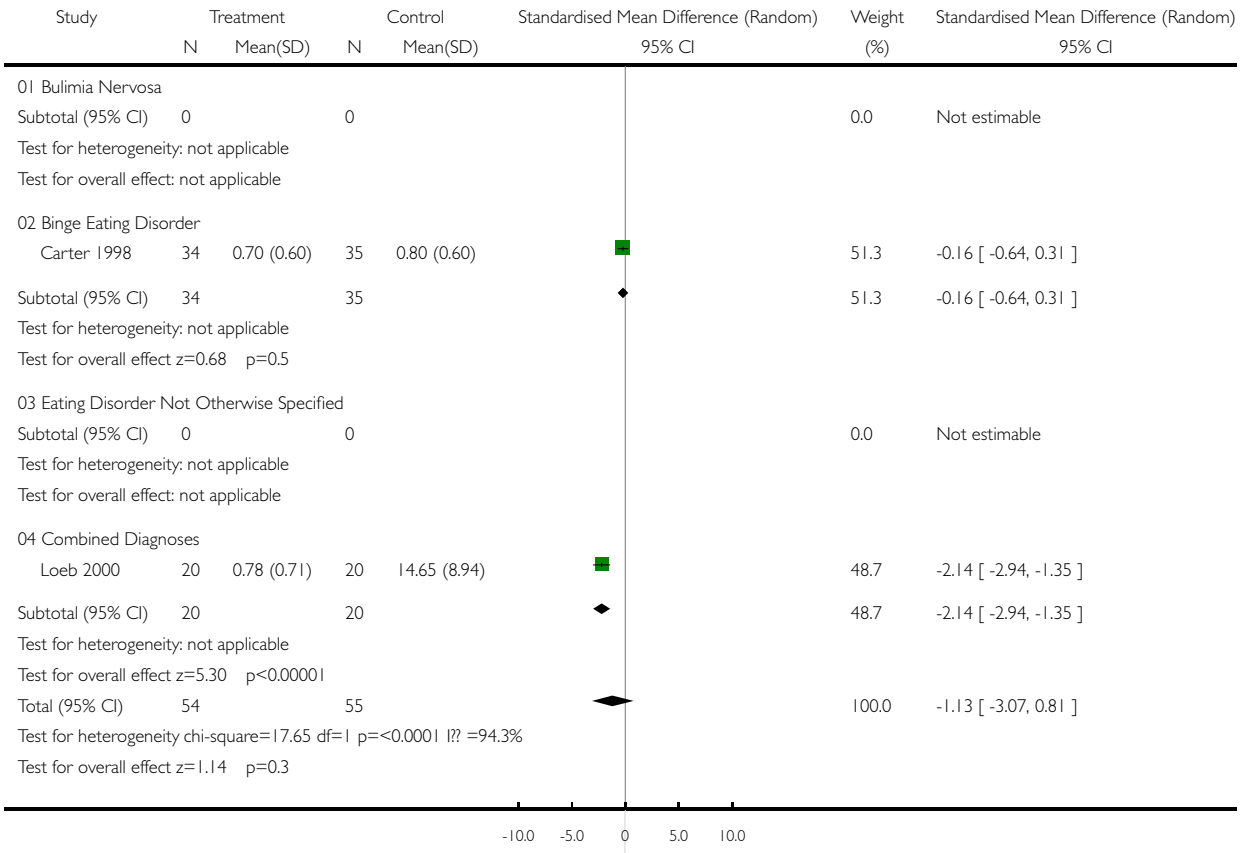


Analysis 03.12. Comparison 03 Guided self-help CBTcompared to pure self-help CBT., Outcome 12 Average difference in general psychiatric symptoms at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 03 Guided self-help CBTcompared to pure self-help CBT.

Outcome: 12 Average difference in general psychiatric symptoms at end of treatment

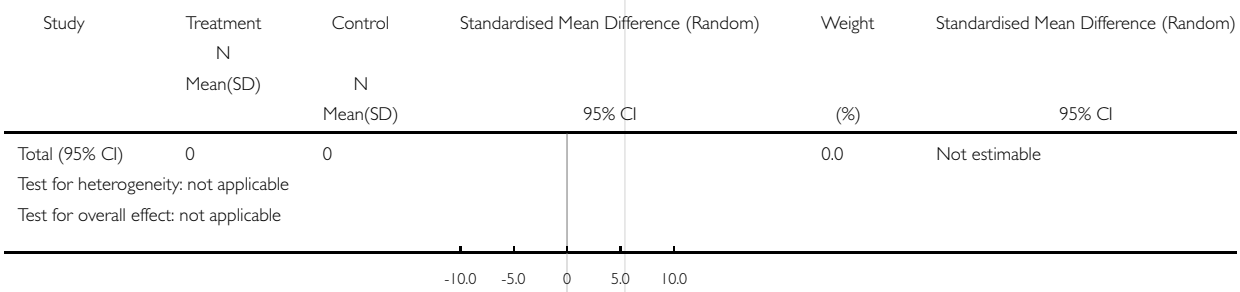


Analysis 03.14. Comparison 03 Guided self-help CBTcompared to pure self-help CBT., Outcome 14 Average difference in psycho-social functioning at end of therapy

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 03 Guided self-help CBTcompared to pure self-help CBT.

Outcome: 14 Average difference in psycho-social functioning at end of therapy



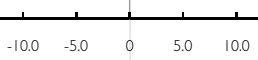
Analysis 03.15. Comparison 03 Guided self-help CBTcompared to pure self-help CBT., Outcome 15 Mean weight at end of therapy (BMI where possible)

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 03 Guided self-help CBTcompared to pure self-help CBT.

Outcome: 15 Mean weight at end of therapy (BMI where possible)

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
02 Binge Eating Disorder							
Carter 1998	34	31.70 (6.10)	35	30.70 (6.60)		49.5	0.16 [-0.32, 0.63]
Subtotal (95% CI)	34		35			49.5	0.16 [-0.32, 0.63]
Test for heterogeneity: not applicable							
Test for overall effect z=0.64 p=0.5							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Ghaderi 2003	16	23.90 (5.30)	15	26.30 (5.80)		21.7	-0.42 [-1.13, 0.29]
Loeb 2000	20	35.72 (10.44)	20	36.12 (7.74)		28.8	-0.04 [-0.66, 0.58]
Subtotal (95% CI)	36		35			50.5	-0.21 [-0.67, 0.26]
Test for heterogeneity chi-square=0.62 df=1 p=0.43 I?? =0.0%							
Test for overall effect z=0.86 p=0.4							
Total (95% CI)	70		70			100.0	-0.03 [-0.36, 0.31]
Test for heterogeneity chi-square=1.75 df=2 p=0.42 I?? =0.0%							
Test for overall effect z=0.16 p=0.9							



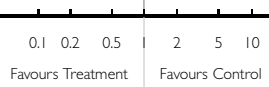
Analysis 04.01. Comparison 04 CBT versus CBT augmented by ERP, Outcome 01 Number of people who did not show remission (100% binge free)

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 04 CBT versus CBT augmented by ERP

Outcome: 01 Number of people who did not show remission (100% binge free)

Study	CBT n/N	ERP n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Agras 1989	12/22	12/17		35.2	0.77 [0.47, 1.26]
Bulik 1998	18/39	40/72		53.5	0.83 [0.56, 1.24]
Wilson 1986	6/9	4/9		11.3	1.50 [0.63, 3.56]
Subtotal (95% CI)	70	98		100.0	0.87 [0.65, 1.16]
Total events: 36 (CBT), 56 (ERP)					
Test for heterogeneity chi-square=1.80 df=2 p=0.41 I?? =0.0%					
Test for overall effect z=0.97 p=0.3					
02 Binge Eating Disorder					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (CBT), 0 (ERP)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (CBT), 0 (ERP)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (CBT), 0 (ERP)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
Total (95% CI)	70	98		100.0	0.87 [0.65, 1.16]
Total events: 36 (CBT), 56 (ERP)					
Test for heterogeneity chi-square=1.80 df=2 p=0.41 I?? =0.0%					
Test for overall effect z=0.97 p=0.3					



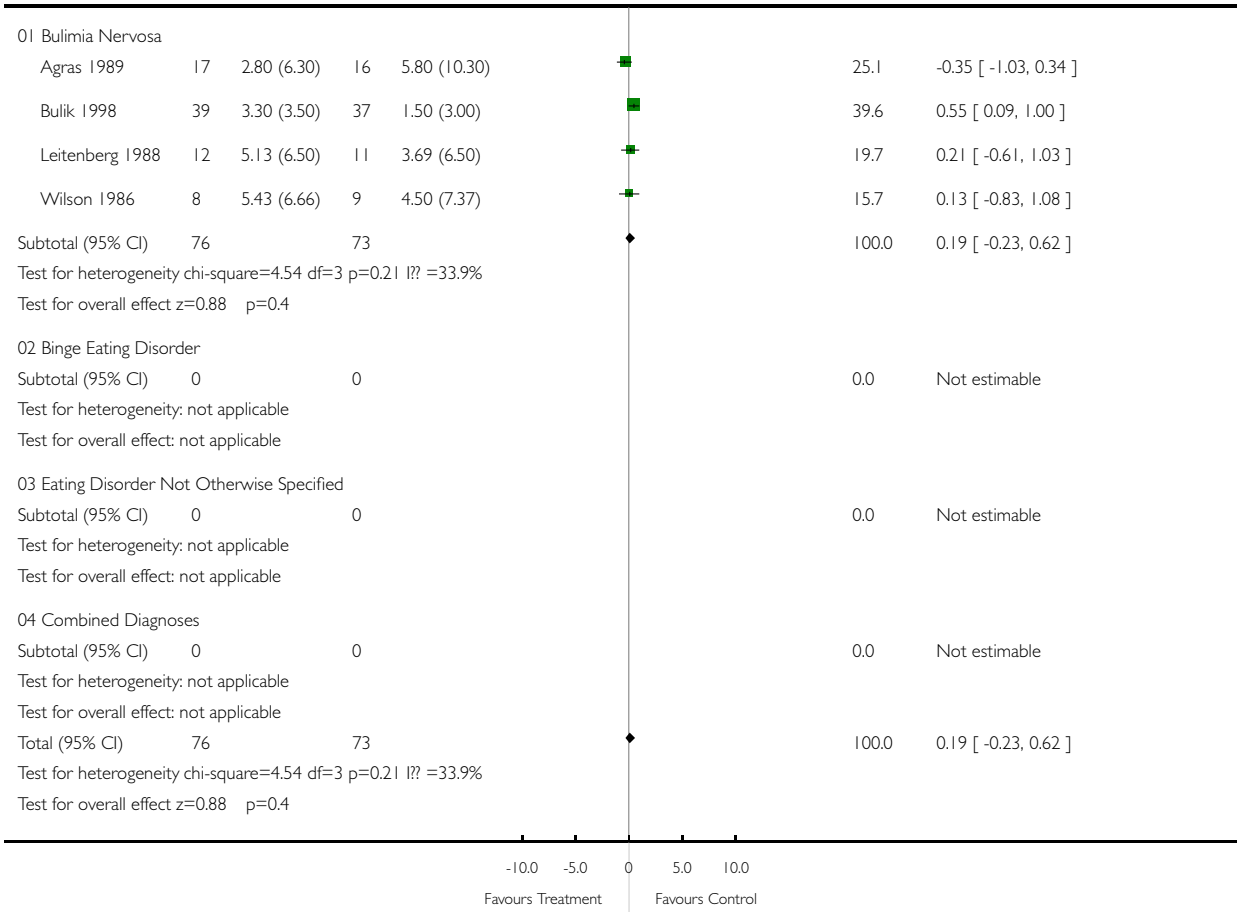
Analysis 04.02. Comparison 04 CBT versus CBT augmented by ERP, Outcome 02 Mean scores on bulimic rating scale at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 04 CBT versus CBT augmented by ERP

Outcome: 02 Mean scores on bulimic rating scale at end of treatment

Study	CBT N	CBT Mean(SD)	ERP N	ERP Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Agras 1989	17	2.80 (6.30)	16	5.80 (10.30)		25.1	-0.35 [-1.03, 0.34]
Bulik 1998	39	3.30 (3.50)	37	1.50 (3.00)		39.6	0.55 [0.09, 1.00]
Leitenberg 1988	12	5.13 (6.50)	11	3.69 (6.50)		19.7	0.21 [-0.61, 1.03]
Wilson 1986	8	5.43 (6.66)	9	4.50 (7.37)		15.7	0.13 [-0.83, 1.08]
Subtotal (95% CI)	76		73			100.0	0.19 [-0.23, 0.62]
Test for heterogeneity chi-square=4.54 df=3 p=0.21 I?? =33.9%							
Test for overall effect z=0.88 p=0.4							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	76		73			100.0	0.19 [-0.23, 0.62]
Test for heterogeneity chi-square=4.54 df=3 p=0.21 I?? =33.9%							
Test for overall effect z=0.88 p=0.4							

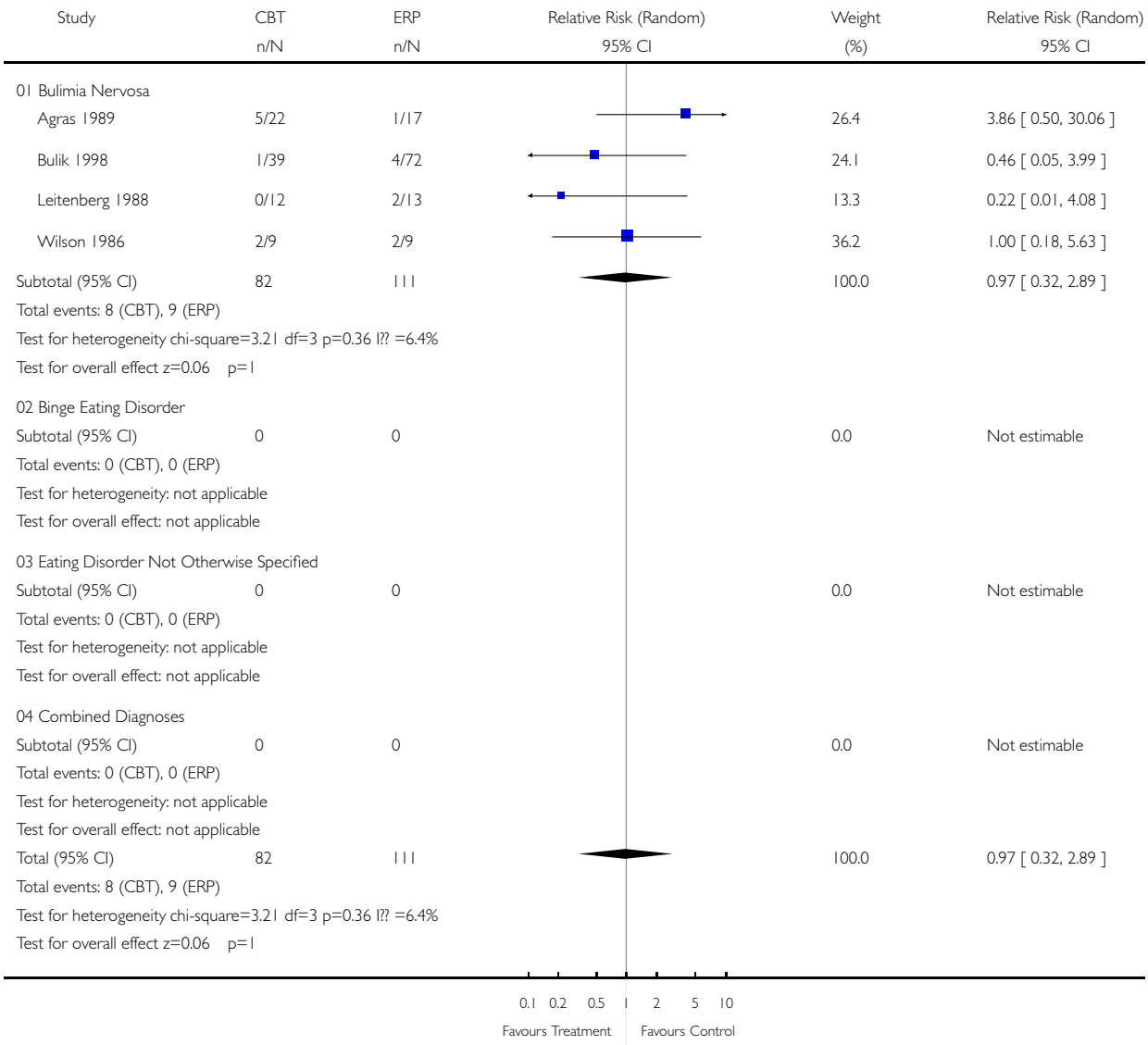


Analysis 04.03. Comparison 04 CBT versus CBT augmented by ERP, Outcome 03 Number of noncompleters due to any reason

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 04 CBT versus CBT augmented by ERP

Outcome: 03 Number of noncompleters due to any reason



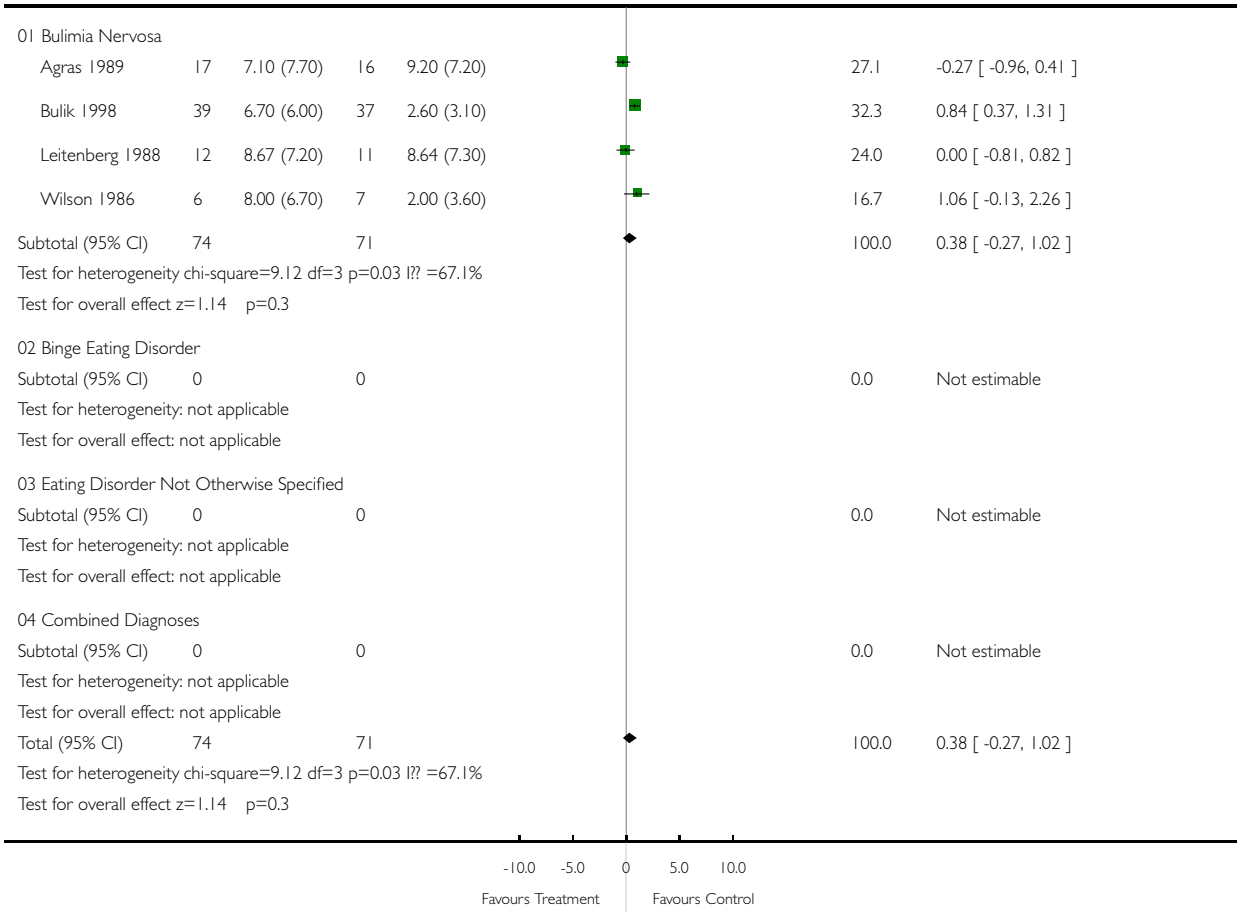
Analysis 04.04. Comparison 04 CBT versus CBT augmented by ERP, Outcome 04 Mean scores on depression rating scale at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 04 CBT versus CBT augmented by ERP

Outcome: 04 Mean scores on depression rating scale at end of treatment

Study	CBT N	CBT Mean(SD)	ERP N	ERP Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Agras 1989	17	7.10 (7.70)	16	9.20 (7.20)		27.1	-0.27 [-0.96, 0.41]
Bulik 1998	39	6.70 (6.00)	37	2.60 (3.10)		32.3	0.84 [0.37, 1.31]
Leitenberg 1988	12	8.67 (7.20)	11	8.64 (7.30)		24.0	0.00 [-0.81, 0.82]
Wilson 1986	6	8.00 (6.70)	7	2.00 (3.60)		16.7	1.06 [-0.13, 2.26]
Subtotal (95% CI)	74		71			100.0	0.38 [-0.27, 1.02]
Test for heterogeneity chi-square=9.12 df=3 p=0.03 I?? =67.1%							
Test for overall effect z=1.14 p=0.3							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	74		71			100.0	0.38 [-0.27, 1.02]
Test for heterogeneity chi-square=9.12 df=3 p=0.03 I?? =67.1%							
Test for overall effect z=1.14 p=0.3							



Analysis 04.05. Comparison 04 CBT versus CBT augmented by ERP, Outcome 05 Mean scores on psychiatric symptom rating scale at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 04 CBT versus CBT augmented by ERP

Outcome: 05 Mean scores on psychiatric symptom rating scale at end of treatment

Study	CBT N Mean(SD)	CBT and ERP N Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
Total (95% CI)	0	0		0.0	Not estimable
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					

Analysis 04.06. Comparison 04 CBT versus CBT augmented by ERP, Outcome 06 Mean weight at end of therapy

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 04 CBT versus CBT augmented by ERP

Outcome: 06 Mean weight at end of therapy

Study	Treatment N Mean(SD)	Control N Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
Total (95% CI)	0	0		0.0	Not estimable
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					

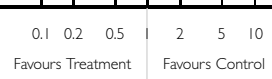
Analysis 05.01. Comparison 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group, Outcome 01 Number of people who did not show remission (100% binge free)

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group

Outcome: 01 Number of people who did not show remission (100% binge free)

Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Agras 1989	13/19	18/19		29.2	0.72 [0.52, 1.00]
Griffiths 1993	18/27	27/28		40.1	0.69 [0.52, 0.91]
Safer 2001	8/16	15/15		12.7	0.50 [0.31, 0.82]
Wilfley 1993	10/18	20/20		17.9	0.56 [0.37, 0.84]
Subtotal (95% CI)	80	82		100.0	0.65 [0.54, 0.77]
Total events: 49 (Treatment), 80 (Control)					
Test for heterogeneity chi-square=2.35 df=3 p=0.50 I?? =0.0%					
Test for overall effect z=4.90 p<0.00001					
02 Binge Eating Disorder					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
Total (95% CI)	80	82		100.0	0.65 [0.54, 0.77]
Total events: 49 (Treatment), 80 (Control)					
Test for heterogeneity chi-square=2.35 df=3 p=0.50 I?? =0.0%					
Test for overall effect z=4.90 p<0.00001					



Analysis 05.02. Comparison 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group, Outcome 02 Mean scores on binge and/or purge frequency at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group

Outcome: 02 Mean scores on binge and/or purge frequency at end of treatment

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Agras 1989	16	4.60 (6.20)	18	13.60 (10.70)		17.6	-0.99 [-1.71, -0.27]
Freeman 1988	30	0.80 (1.50)	20	3.70 (3.60)		24.4	-1.12 [-1.73, -0.51]
Griffiths 1993	27	1.70 (1.90)	28	4.39 (2.31)		26.9	-1.25 [-1.83, -0.67]
Safer 2001	14	2.01 (2.33)	15	5.08 (2.09)		13.6	-1.35 [-2.17, -0.53]
Wilfley 1993	18	1.40 (1.70)	20	3.90 (1.70)		17.4	-1.44 [-2.16, -0.72]
Subtotal (95% CI)	105		101			100.0	-1.22 [-1.52, -0.92]
Test for heterogeneity chi-square=0.96 df=4 p=0.92 I?? =0.0%							
Test for overall effect z=7.92 p<0.00001							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	105		101			100.0	-1.22 [-1.52, -0.92]
Test for heterogeneity chi-square=0.96 df=4 p=0.92 I?? =0.0%							
Test for overall effect z=7.92 p<0.00001							

Analysis 05.04. Comparison 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group, Outcome 04 Mean scores on depression rating scale at end of treatment.

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group

Outcome: 04 Mean scores on depression rating scale at end of treatment.

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Agras 1989	16	13.50 (10.20)	18	18.80 (8.30)		33.9	-0.56 [-1.25, 0.13]
Safer 2001	14	13.40 (11.60)	15	17.40 (11.80)		29.8	-0.33 [-1.07, 0.40]
Wilfley 1993	18	8.40 (6.70)	20	14.20 (7.50)		36.4	-0.80 [-1.46, -0.13]
Subtotal (95% CI)	48		53			100.0	-0.58 [-0.98, -0.18]
Test for heterogeneity chi-square=0.85 df=2 p=0.65 I?? =0.0%							
Test for overall effect z=2.83 p=0.005							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	48		53			100.0	-0.58 [-0.98, -0.18]
Test for heterogeneity chi-square=0.85 df=2 p=0.65 I?? =0.0%							
Test for overall effect z=2.83 p=0.005							

Analysis 05.05. Comparison 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group, Outcome 05 Mean scores on general psychiatric symptom rating scales at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group

Outcome: 05 Mean scores on general psychiatric symptom rating scales at end of treatment

Study	Treatment N Mean(SD)	Control N Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
Total (95% CI)	0	0		0.0	Not estimable
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					

Analysis 05.06. Comparison 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group, Outcome 06 Number of treatment non-completers

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group

Outcome: 06 Number of treatment non-completers

Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Agras 1989	3/19	1/19		13.4	3.00 [0.34, 26.33]
Griffiths 1993	6/27	6/28		62.9	1.04 [0.38, 2.82]
Safer 2001	2/16	1/15		12.0	1.88 [0.19, 18.60]
Wilfley 1993	2/18	1/20		11.8	2.22 [0.22, 22.49]
Subtotal (95% CI)	80	82		100.0	1.40 [0.63, 3.10]
Total events: 13 (Treatment), 9 (Control)					
Test for heterogeneity chi-square=1.05 df=3 p=0.79 I?? =0.0%					
Test for overall effect z=0.84 p=0.4					
02 Binge Eating Disorder					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					

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Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
Total (95% CI)	80	82		100.0	1.40 [0.63, 3.10]
Total events: 13 (Treatment), 9 (Control)					
Test for heterogeneity chi-square=1.05 df=3 p=0.79 I?? =0.0%					
Test for overall effect z=0.84 p=0.4					

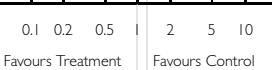
Analysis 05.07. Comparison 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group, Outcome 07 Numbers not completing due to adverse events.

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group

Outcome: 07 Numbers not completing due to adverse events.

Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
Total (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					



Analysis 05.08. Comparison 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group, Outcome 08 Mean weight at end of therapy

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group

Outcome: 08 Mean weight at end of therapy

Study	Treatment N Mean(SD)	Control N Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
Total (95% CI)	0	0		0.0	Not estimable
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					

-10.0 -5.0 0 5.0 10.0

Favours treatment Favours control

Analysis 05.09. Comparison 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group, Outcome 09 EDE restraint scale scores at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 05 Any psychotherapy, NOT CBT, compared to a no treatment or waitlist control group

Outcome: 09 EDE restraint scale scores at end of treatment

Study	Treatment N	Mean(SD)	Control N	Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Safer 2001	14	2.84 (1.56)	15	3.93 (1.07)		100.0	-0.80 [-1.56, -0.04]
Subtotal (95% CI)	14		15			100.0	-0.80 [-1.56, -0.04]
Test for heterogeneity: not applicable							
Test for overall effect z=2.05 p=0.04							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	14		15			100.0	-0.80 [-1.56, -0.04]
Test for heterogeneity: not applicable							
Test for overall effect z=2.05 p=0.04							

-10.0 -5.0 0 5.0 10.0

Favours treatment Favours control

Analysis 06.01. Comparison 06 Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.), Outcome 01 Number of people who did not show remission (100% binge free)

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 06 Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.)

Outcome: 01 Number of people who did not show remission (100% binge free)

Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Bachar 1999	4/8	6/7		22.5	0.58 [0.27, 1.24]
Fairburn 1991	11/24	13/24		31.8	0.85 [0.48, 1.50]
Laessle 1991	21/28	16/27		45.7	1.27 [0.87, 1.85]
Subtotal (95% CI)	60	58		100.0	0.94 [0.61, 1.45]
Total events: 36 (Treatment), 35 (Control)					
Test for heterogeneity chi-square=3.79 df=2 p=0.15 I?? =47.2%					
Test for overall effect z=0.30 p=0.8					
02 Binge Eating Disorder					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
Total (95% CI)	60	58		100.0	0.94 [0.61, 1.45]
Total events: 36 (Treatment), 35 (Control)					
Test for heterogeneity chi-square=3.79 df=2 p=0.15 I?? =47.2%					
Test for overall effect z=0.30 p=0.8					

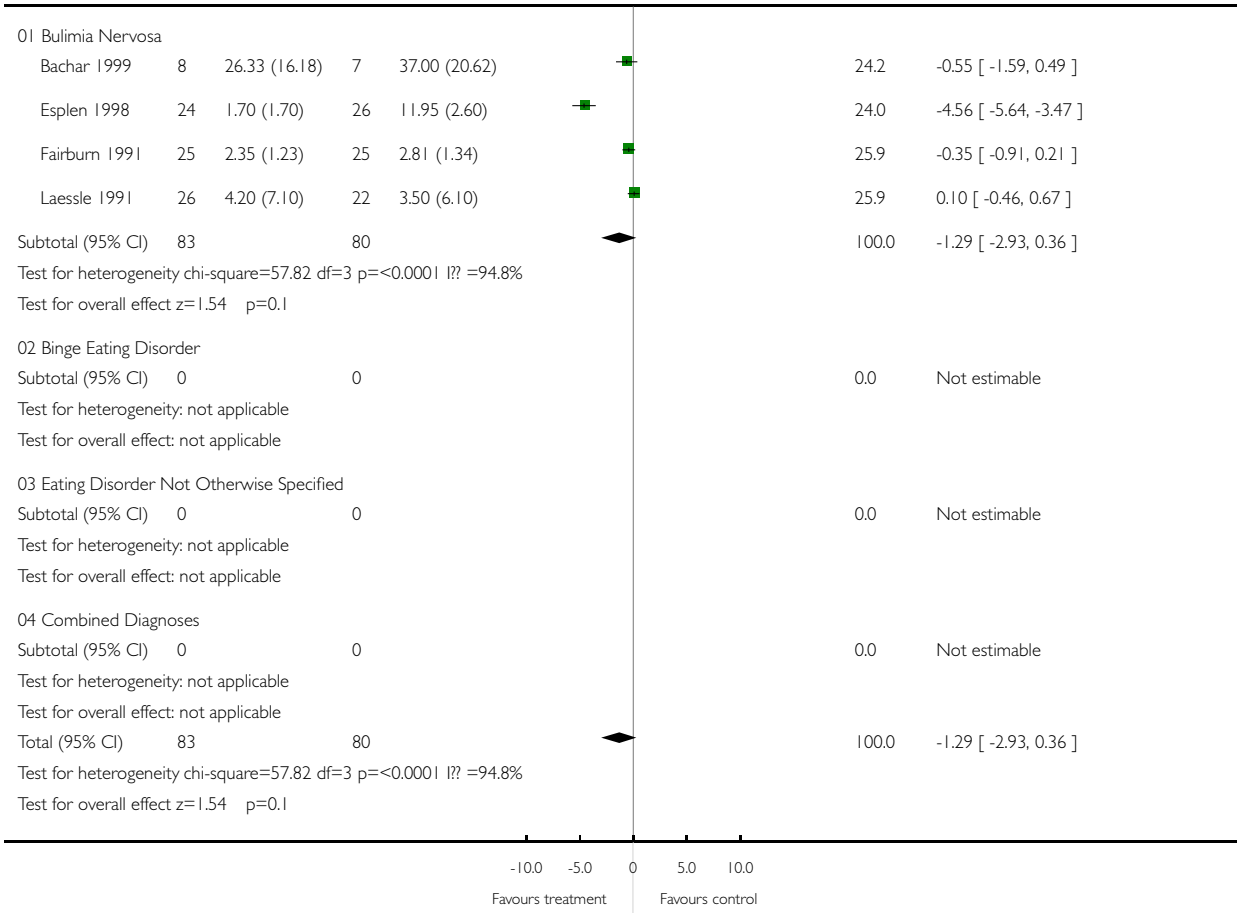
Analysis 06.02. Comparison 06 Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.), Outcome 02 Mean scores of bulimic symptoms at end of trial where scores were not different between groups at start

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 06 Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.)

Outcome: 02 Mean scores of bulimic symptoms at end of trial where scores were not different between groups at start

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Bachar 1999	8	26.33 (16.18)	7	37.00 (20.62)		24.2	-0.55 [-1.59, 0.49]
Esplen 1998	24	1.70 (1.70)	26	11.95 (2.60)		24.0	-4.56 [-5.64, -3.47]
Fairburn 1991	25	2.35 (1.23)	25	2.81 (1.34)		25.9	-0.35 [-0.91, 0.21]
Laessle 1991	26	4.20 (7.10)	22	3.50 (6.10)		25.9	0.10 [-0.46, 0.67]
Subtotal (95% CI)	83		80			100.0	-1.29 [-2.93, 0.36]
Test for heterogeneity chi-square=57.82 df=3 p=<0.0001 I?? =94.8%							
Test for overall effect z=1.54 p=0.1							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	83		80			100.0	-1.29 [-2.93, 0.36]
Test for heterogeneity chi-square=57.82 df=3 p=<0.0001 I?? =94.8%							
Test for overall effect z=1.54 p=0.1							



Analysis 06.03. Comparison 06 Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.), Outcome 03 Number of people who dropped out due to adverse events

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 06 Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.)

Outcome: 03 Number of people who dropped out due to adverse events

Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
Total (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					

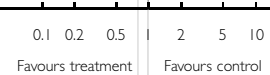
Analysis 06.04. Comparison 06 Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.), Outcome 04 Number of people who dropped out due to any reason

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 06 Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.)

Outcome: 04 Number of people who dropped out due to any reason

Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Esplen 1998	4/28	4/30		33.6	1.07 [0.30, 3.88]
Fairburn 1991	4/25	6/24		43.3	0.64 [0.21, 1.99]
Laessle 1991	2/28	5/27		23.1	0.39 [0.08, 1.82]
Subtotal (95% CI)	81	81		100.0	0.68 [0.32, 1.43]
Total events: 10 (Treatment), 15 (Control)					
Test for heterogeneity chi-square=1.01 df=2 p=0.60 I?? =0.0%					
Test for overall effect z=1.02 p=0.3					
02 Binge Eating Disorder					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					



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Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
04 Combined Diagnoses					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
Total (95% CI)	81	81		100.0	0.68 [0.32, 1.43]
Total events: 10 (Treatment), 15 (Control)					
Test for heterogeneity chi-square=1.01 df=2 p=0.60 I?? =0.0%					
Test for overall effect z=1.02 p=0.3					

Analysis 06.05. Comparison 06 Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.), Outcome 05 Mean end of trial depression scores

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 06 Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.)

Outcome: 05 Mean end of trial depression scores

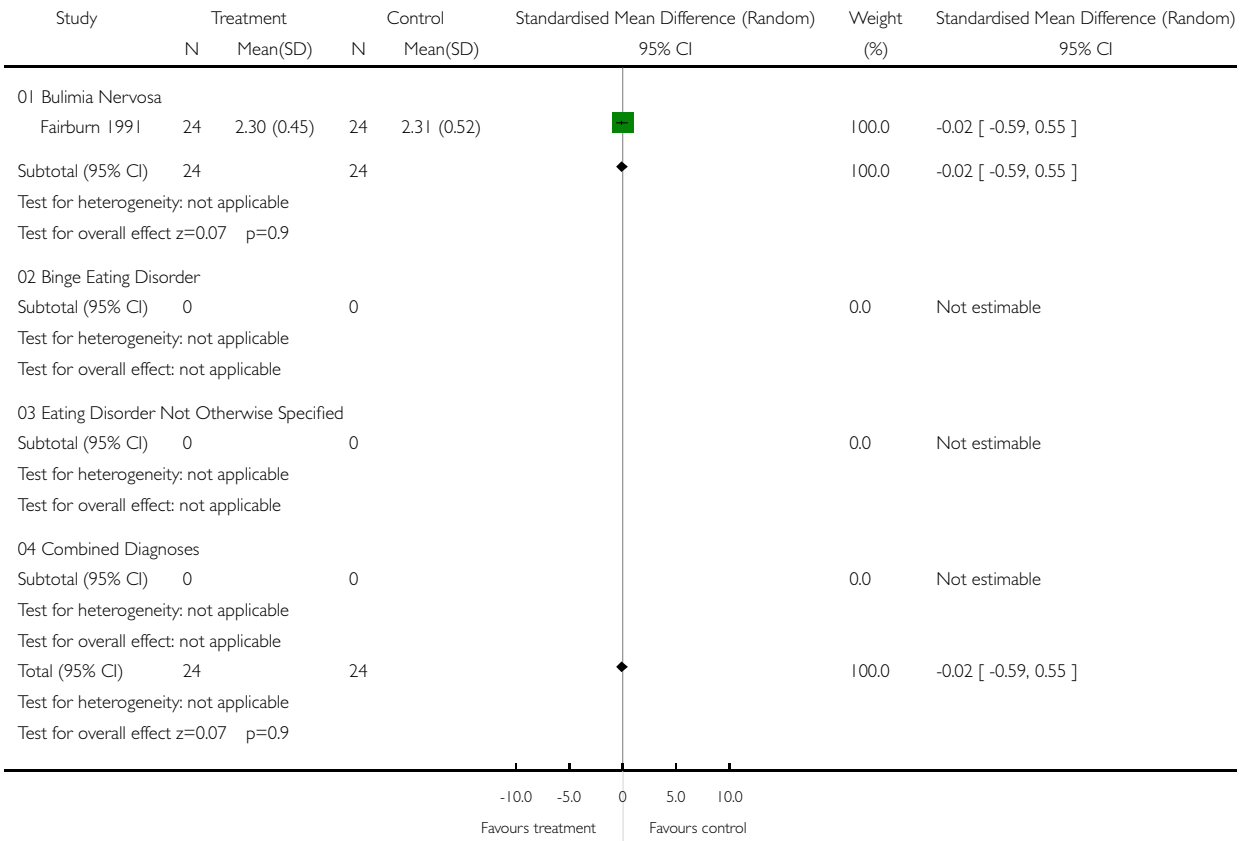
Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Laessle 1991	26	11.80 (12.50)	22	9.30 (9.20)		100.0	0.22 [-0.35, 0.79]
Subtotal (95% CI)	26		22			100.0	0.22 [-0.35, 0.79]
Test for heterogeneity: not applicable							
Test for overall effect z=0.76 p=0.4							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	26		22			100.0	0.22 [-0.35, 0.79]
Test for heterogeneity: not applicable							
Test for overall effect z=0.76 p=0.4							

Analysis 06.06. Comparison 06 Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.), Outcome 06 Mean end of trial scores on measures of social or interpersonal functioning

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 06 Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.)

Outcome: 06 Mean end of trial scores on measures of social or interpersonal functioning



Analysis 06.07. Comparison 06 Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.), Outcome 07 Mean weight at end of therapy (Body Mass Index where possible)

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 06 Any psychotherapy NOT CBT compared to a control therapy (to date either nutritional management or B.T.)

Outcome: 07 Mean weight at end of therapy (Body Mass Index where possible)

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Laessle 1991	26	20.70 (2.00)	22	22.00 (1.90)		100.0	-0.65 [-1.24, -0.07]
Subtotal (95% CI)	26		22			100.0	-0.65 [-1.24, -0.07]
Test for heterogeneity: not applicable							
Test for overall effect z=2.20 p=0.03							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	26		22			100.0	-0.65 [-1.24, -0.07]
Test for heterogeneity: not applicable							
Test for overall effect z=2.20 p=0.03							

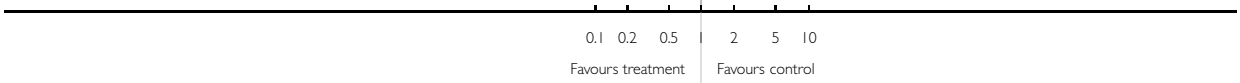
Analysis 07.01. Comparison 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.), Outcome 01 Number of people who did not remit (were not 100% binge free)

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.)

Outcome: 01 Number of people who did not remit (were not 100% binge free)

Study	CBT n/N	B.T. or similar n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Agras 1989	12/22	15/19		24.3	0.69 [0.44, 1.08]
Fairburn 1991	10/25	13/24		13.2	0.74 [0.40, 1.35]
Hsu 2001	13/27	19/23		25.7	0.58 [0.38, 0.90]
Kirkley 1985	9/14	13/14		27.9	0.69 [0.46, 1.05]
Subtotal (95% CI)	88	80		91.2	0.67 [0.53, 0.84]
Total events: 44 (CBT), 60 (B.T. or similar)					
Test for heterogeneity chi-square=0.53 df=3 p=0.91 I?? =0.0%					
Test for overall effect z=3.46 p=0.0005					
02 Binge Eating Disorder					
Nauta 2000	7/21	9/16		8.8	0.59 [0.28, 1.25]
Subtotal (95% CI)	21	16		8.8	0.59 [0.28, 1.25]
Total events: 7 (CBT), 9 (B.T. or similar)					
Test for heterogeneity: not applicable					
Test for overall effect z=1.38 p=0.2					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (CBT), 0 (B.T. or similar)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (CBT), 0 (B.T. or similar)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
Total (95% CI)	109	96		100.0	0.66 [0.53, 0.82]
Total events: 51 (CBT), 69 (B.T. or similar)					
Test for heterogeneity chi-square=0.62 df=4 p=0.96 I?? =0.0%					
Test for overall effect z=3.72 p=0.0002					



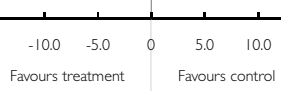
Analysis 07.02. Comparison 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.), Outcome 02 Mean binge eating frequency at end of therapy

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.)

Outcome: 02 Mean binge eating frequency at end of therapy

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Wolf 1992	15	5.30 (5.10)	15	8.80 (13.50)		45.6	-0.33 [-1.06, 0.39]
Subtotal (95% CI)	15		15			45.6	-0.33 [-1.06, 0.39]
Test for heterogeneity: not applicable							
Test for overall effect z=0.91 p=0.4							
02 Binge Eating Disorder							
Nauta 2000	21	1.60 (3.80)	16	3.90 (5.50)		54.4	-0.49 [-1.15, 0.17]
Subtotal (95% CI)	21		16			54.4	-0.49 [-1.15, 0.17]
Test for heterogeneity: not applicable							
Test for overall effect z=1.45 p=0.1							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	36		31			100.0	-0.42 [-0.91, 0.07]
Test for heterogeneity chi-square=0.10 df=1 p=0.76 I?? =0.0%							
Test for overall effect z=1.68 p=0.09							



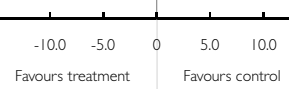
Analysis 07.03. Comparison 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.), Outcome 03 Mean depression scores at end of therapy

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.)

Outcome: 03 Mean depression scores at end of therapy

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Agras 1989	17	7.10 (7.70)	16	13.50 (10.20)		46.3	-0.69 [-1.40, 0.01]
Subtotal (95% CI)	17		16			46.3	-0.69 [-1.40, 0.01]
Test for heterogeneity: not applicable							
Test for overall effect z=1.93 p=0.05							
02 Binge Eating Disorder							
Nauta 2000	21	10.00 (9.10)	16	12.60 (6.60)		53.7	-0.31 [-0.97, 0.34]
Subtotal (95% CI)	21		16			53.7	-0.31 [-0.97, 0.34]
Test for heterogeneity: not applicable							
Test for overall effect z=0.94 p=0.3							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	38		32			100.0	-0.49 [-0.97, -0.01]
Test for heterogeneity chi-square=0.60 df=1 p=0.44 I?? =0.0%							
Test for overall effect z=2.00 p=0.05							

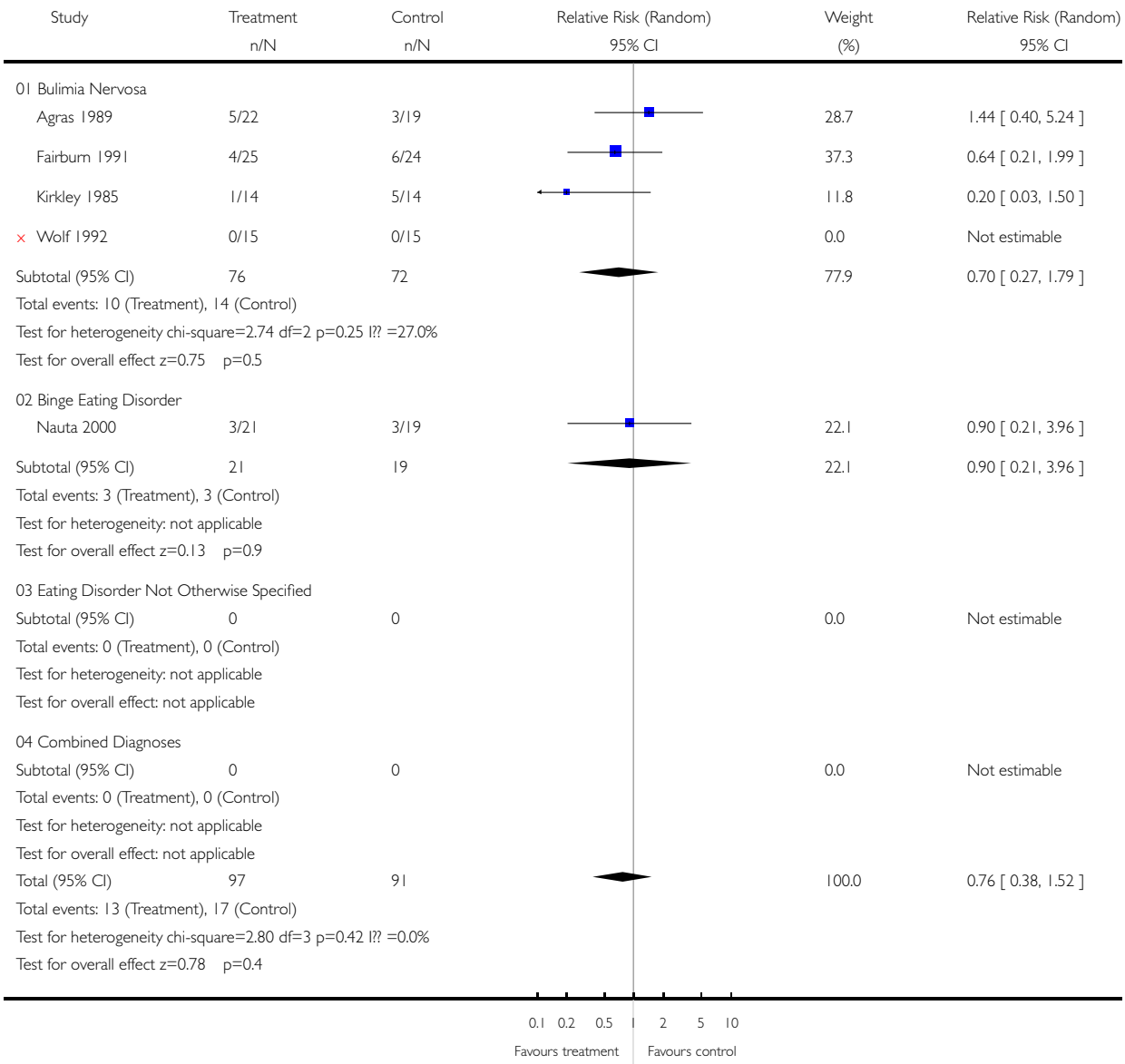


Analysis 07.04. Comparison 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.), Outcome 04 Number of subjects not completing therapy

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.)

Outcome: 04 Number of subjects not completing therapy



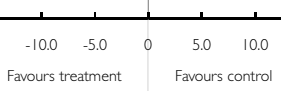
Analysis 07.05. Comparison 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.), Outcome 05 Body mass index or weight at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.)

Outcome: 05 Body mass index or weight at end of treatment

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Fairburn 1991	21	23.30 (4.29)	18	22.97 (3.32)		51.8	0.08 [-0.55, 0.71]
Subtotal (95% CI)	21		18			51.8	0.08 [-0.55, 0.71]
Test for heterogeneity: not applicable							
Test for overall effect z=0.26 p=0.8							
02 Binge Eating Disorder							
Nauta 2000	21	94.20 (15.50)	16	90.40 (15.00)		48.2	0.24 [-0.41, 0.90]
Subtotal (95% CI)	21		16			48.2	0.24 [-0.41, 0.90]
Test for heterogeneity: not applicable							
Test for overall effect z=0.73 p=0.5							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	42		34			100.0	0.16 [-0.29, 0.61]
Test for heterogeneity chi-square=0.12 df=1 p=0.73 I?? =0.0%							
Test for overall effect z=0.69 p=0.5							



Analysis 07.06. Comparison 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.), Outcome 06 Mean general psychiatric symptom severity scores at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.)

Outcome: 06 Mean general psychiatric symptom severity scores at end of treatment

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Fairburn 1991	25	0.77 (0.83)	25	0.99 (0.79)		100.0	-0.27 [-0.82, 0.29]
Subtotal (95% CI)	25		25			100.0	-0.27 [-0.82, 0.29]
Test for heterogeneity: not applicable							
Test for overall effect z=0.94 p=0.3							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	25		25			100.0	-0.27 [-0.82, 0.29]
Test for heterogeneity: not applicable							
Test for overall effect z=0.94 p=0.3							

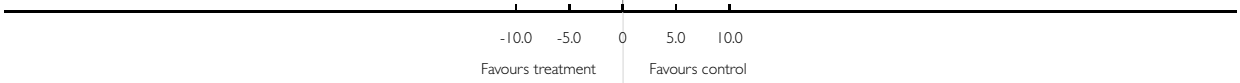
Analysis 07.07. Comparison 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.), Outcome 07 Mean social adjustment scores at end of therapy

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.)

Outcome: 07 Mean social adjustment scores at end of therapy

Study	CBT N	CBT Mean(SD)	BT component of CBT N	BT component of CBT Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Fairburn 1991	25	2.28 (0.68)	25	2.31 (0.52)		100.0	-0.05 [-0.60, 0.51]
Subtotal (95% CI)	25		25			100.0	-0.05 [-0.60, 0.51]
Test for heterogeneity: not applicable							
Test for overall effect z=0.17 p=0.9							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	25		25			100.0	-0.05 [-0.60, 0.51]
Test for heterogeneity: not applicable							
Test for overall effect z=0.17 p=0.9							



Analysis 07.08. Comparison 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.), Outcome 08 Mean bulimic symptom severity scores at end of treatment (eg Global EDE score)

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 07 CBT versus a component of CBT only - most commonly a behavioural component (B.T.)

Outcome: 08 Mean bulimic symptom severity scores at end of treatment (eg Global EDE score)

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Fairburn 1991	25	1.88 (1.45)	25	2.81 (1.34)		62.0	-0.66 [-1.23, -0.09]
Wolf 1992	15	6.70 (4.30)	15	9.60 (6.60)		38.0	-0.51 [-1.24, 0.22]
Subtotal (95% CI)	40		40			100.0	-0.60 [-1.05, -0.15]
Test for heterogeneity chi-square=0.10 df=1 p=0.75 I?? =0.0%							
Test for overall effect z=2.61 p=0.009							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	40		40			100.0	-0.60 [-1.05, -0.15]
Test for heterogeneity chi-square=0.10 df=1 p=0.75 I?? =0.0%							
Test for overall effect z=2.61 p=0.009							

Analysis 08.01. Comparison 08 Guided (non specialist) self-help versus waiting-list control group, Outcome 01 Number not abstinent from binge eating at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 08 Guided (non specialist) self-help versus waiting-list control group

Outcome: 01 Number not abstinent from binge eating at end of treatment

Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
02 Binge Eating Disorder					
Carter 1998	17/34	22/24		47.0	0.55 [0.38, 0.78]
Subtotal (95% CI)	34	24		47.0	0.55 [0.38, 0.78]
Total events: 17 (Treatment), 22 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect z=3.33 p=0.0009					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Palmer 2002	27/30	31/31		53.0	0.90 [0.80, 1.01]
Subtotal (95% CI)	30	31		53.0	0.90 [0.80, 1.01]
Total events: 27 (Treatment), 31 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect z=1.73 p=0.08					
Total (95% CI)	64	55		100.0	0.71 [0.36, 1.42]
Total events: 44 (Treatment), 53 (Control)					
Test for heterogeneity chi-square=13.44 df=1 p=0.0002 I?? =92.6%					
Test for overall effect z=0.97 p=0.3					

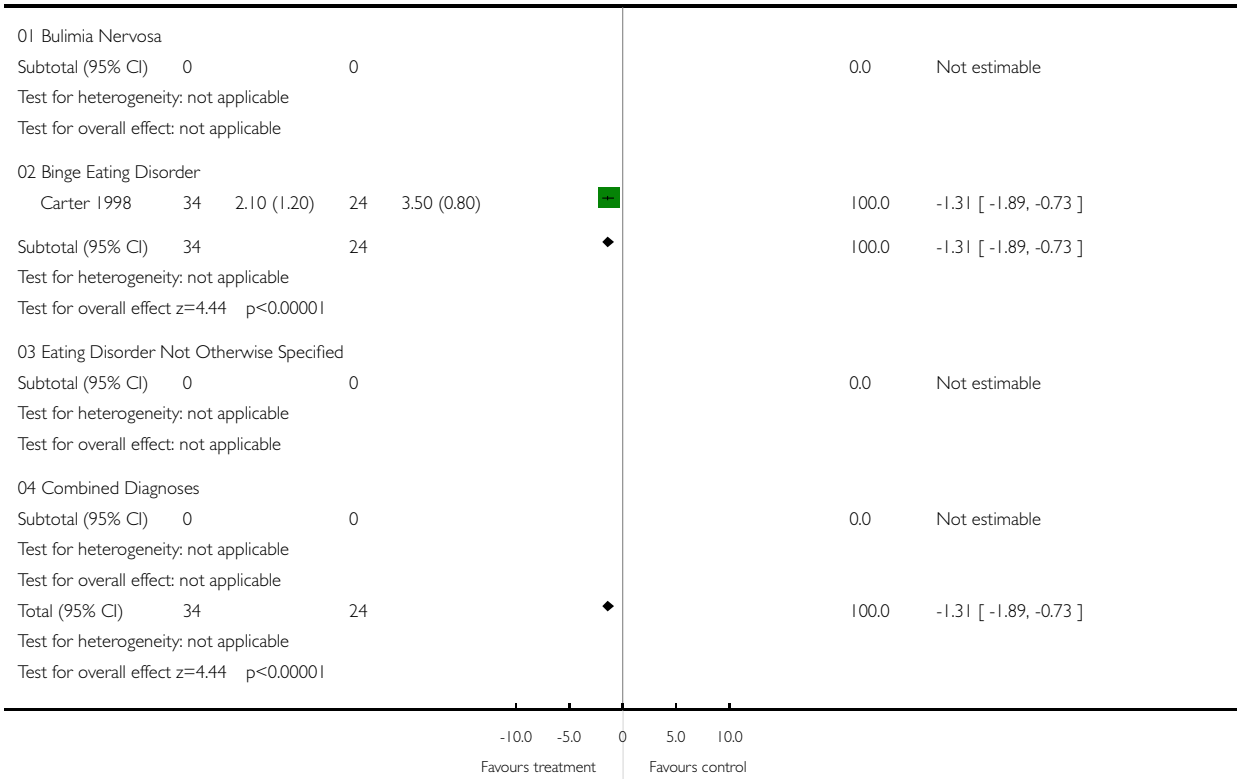
Analysis 08.02. Comparison 08 Guided (non specialist) self-help versus waiting-list control group, Outcome 02 Mean bulimic symptom scores (where possible binge eating weekly frequency) at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 08 Guided (non specialist) self-help versus waiting-list control group

Outcome: 02 Mean bulimic symptom scores (where possible binge eating weekly frequency) at end of treatment

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
02 Binge Eating Disorder							
Carter 1998	34	2.10 (1.20)	24	3.50 (0.80)		100.0	-1.31 [-1.89, -0.73]
Subtotal (95% CI)	34		24			100.0	-1.31 [-1.89, -0.73]
Test for heterogeneity: not applicable							
Test for overall effect z=4.44 p<0.00001							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	34		24			100.0	-1.31 [-1.89, -0.73]
Test for heterogeneity: not applicable							
Test for overall effect z=4.44 p<0.00001							



Analysis 08.03. Comparison 08 Guided (non specialist) self-help versus waiting-list control group, Outcome 03 Mean depression symptom scores on any depression rating scale at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 08 Guided (non specialist) self-help versus waiting-list control group

Outcome: 03 Mean depression symptom scores on any depression rating scale at end of treatment

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Carter 2003	28	26.90 (10.50)	29	1.90 (14.30)		100.0	1.96 [1.32, 2.60]
Subtotal (95% CI)	28		29			100.0	1.96 [1.32, 2.60]
Test for heterogeneity: not applicable							
Test for overall effect z=6.01 p<0.00001							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	28		29			100.0	1.96 [1.32, 2.60]
Test for heterogeneity: not applicable							
Test for overall effect z=6.01 p<0.00001							

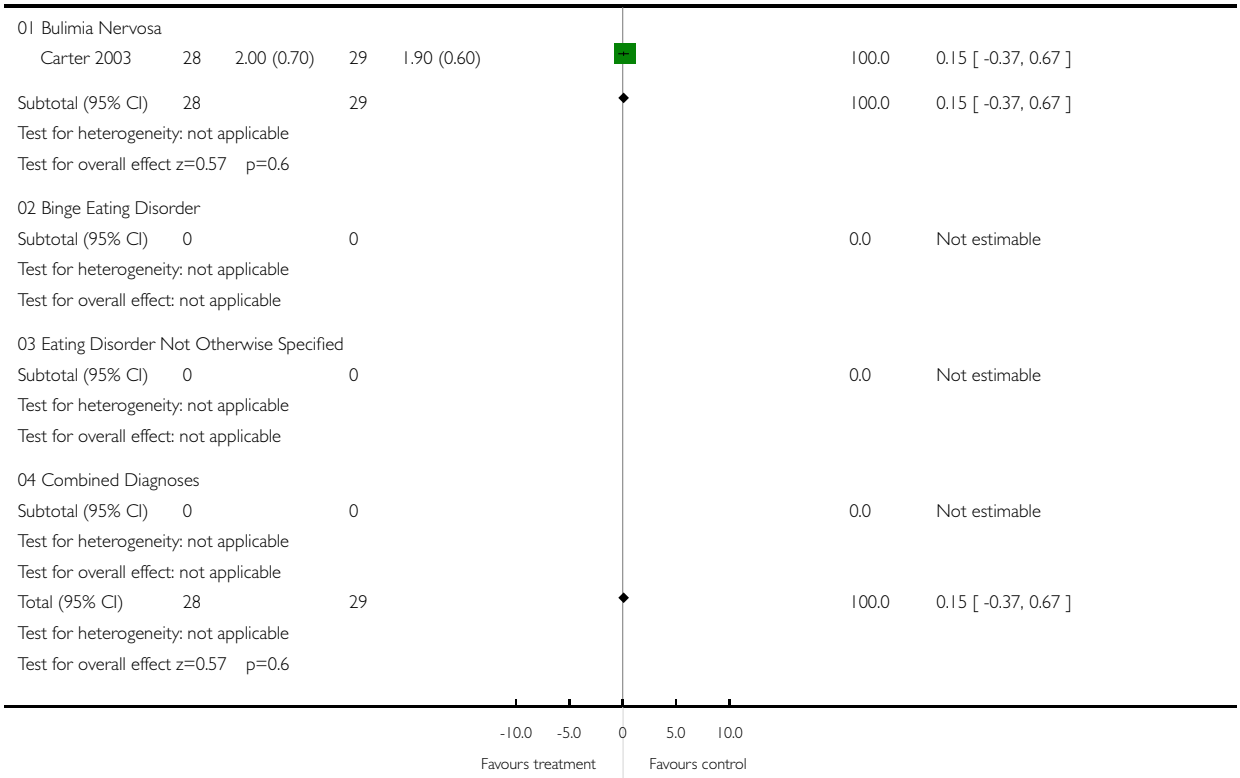
Analysis 08.04. Comparison 08 Guided (non specialist) self-help versus waiting-list control group, Outcome 04 Mean interpersonal and social functioning on any appropriate rating scale at end of treatment.

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 08 Guided (non specialist) self-help versus waiting-list control group

Outcome: 04 Mean interpersonal and social functioning on any appropriate rating scale at end of treatment.

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Carter 2003	28	2.00 (0.70)	29	1.90 (0.60)		100.0	0.15 [-0.37, 0.67]
Subtotal (95% CI)	28		29			100.0	0.15 [-0.37, 0.67]
Test for heterogeneity: not applicable							
Test for overall effect z=0.57 p=0.6							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	28		29			100.0	0.15 [-0.37, 0.67]
Test for heterogeneity: not applicable							
Test for overall effect z=0.57 p=0.6							



Analysis 08.05. Comparison 08 Guided (non specialist) self-help versus waiting-list control group, Outcome 05 Mean general psychiatric symptom severity scores on any appropriate scale at end of treatment.

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 08 Guided (non specialist) self-help versus waiting-list control group

Outcome: 05 Mean general psychiatric symptom severity scores on any appropriate scale at end of treatment.

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
02 Binge Eating Disorder							
Carter 1998	34	0.70 (0.60)	24	1.20 (0.70)		100.0	-0.77 [-1.31, -0.23]
Subtotal (95% CI)	34		24			100.0	-0.77 [-1.31, -0.23]
Test for heterogeneity: not applicable							
Test for overall effect z=2.77 p=0.006							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	34		24			100.0	-0.77 [-1.31, -0.23]
Test for heterogeneity: not applicable							
Test for overall effect z=2.77 p=0.006							

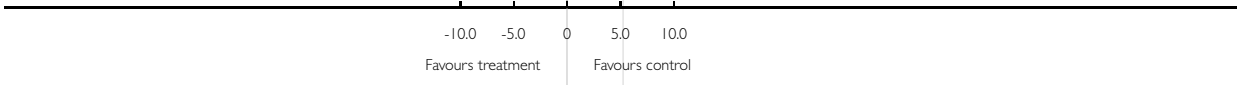
Analysis 08.06. Comparison 08 Guided (non specialist) self-help versus waiting-list control group, Outcome 06 Number of participants withdrawing because of an adverse event.

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 08 Guided (non specialist) self-help versus waiting-list control group

Outcome: 06 Number of participants withdrawing because of an adverse event.

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
Total (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							



Analysis 08.07. Comparison 08 Guided (non specialist) self-help versus waiting-list control group, Outcome 07 Number of participants who withdrew from the study for any reason..

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 08 Guided (non specialist) self-help versus waiting-list control group

Outcome: 07 Number of participants who withdrew from the study for any reason..

Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
02 Binge Eating Disorder					
Carter 1998	8/34	1/24		42.8	5.65 [0.76, 42.23]
Subtotal (95% CI)	34	24		42.8	5.65 [0.76, 42.23]
Total events: 8 (Treatment), 1 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect z=1.69 p=0.09					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Palmer 2002	7/30	9/22		57.2	0.57 [0.25, 1.30]
Subtotal (95% CI)	30	22		57.2	0.57 [0.25, 1.30]
Total events: 7 (Treatment), 9 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect z=1.34 p=0.2					
Total (95% CI)	64	46		100.0	1.52 [0.14, 16.60]
Total events: 15 (Treatment), 10 (Control)					
Test for heterogeneity chi-square=4.94 df=1 p=0.03 I?? =79.8%					
Test for overall effect z=0.34 p=0.7					

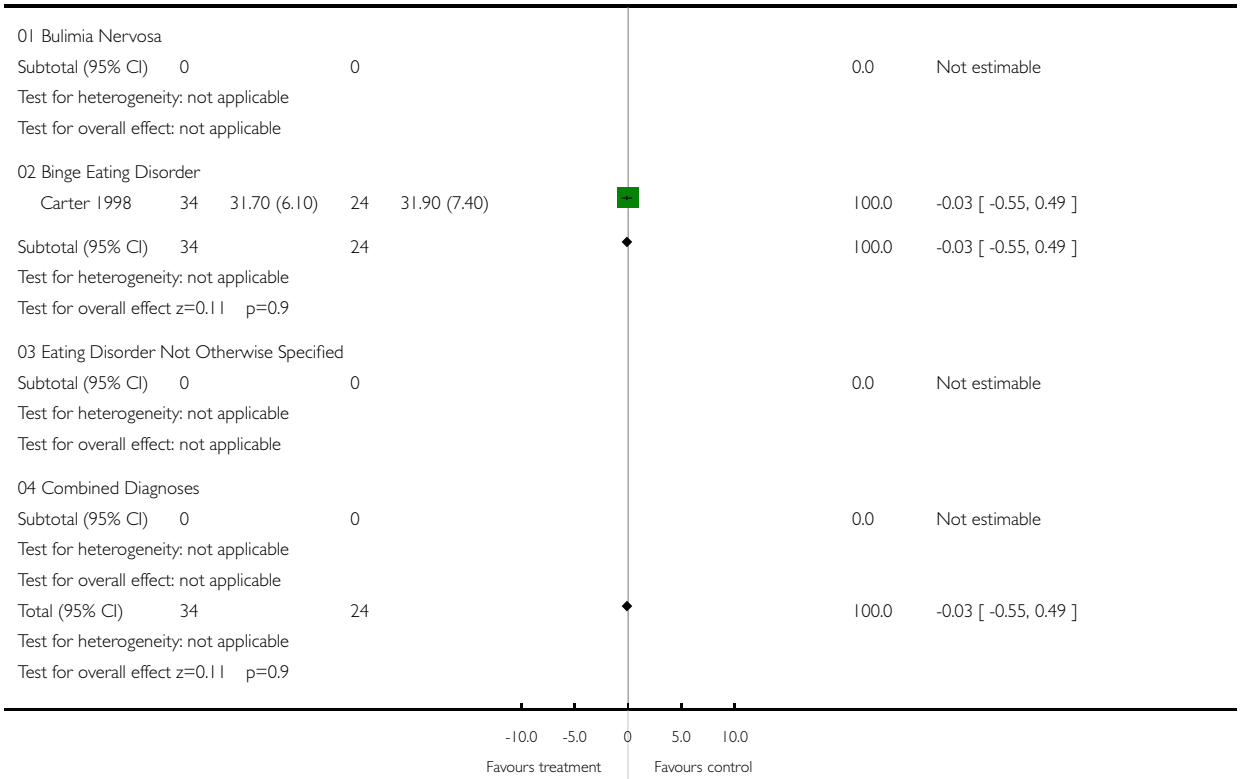
Analysis 08.08. Comparison 08 Guided (non specialist) self-help versus waiting-list control group, Outcome 08 Mean weight (BMI where possible) at end of treatment.

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 08 Guided (non specialist) self-help versus waiting-list control group

Outcome: 08 Mean weight (BMI where possible) at end of treatment.

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
02 Binge Eating Disorder							
Carter 1998	34	31.70 (6.10)	24	31.90 (7.40)		100.0	-0.03 [-0.55, 0.49]
Subtotal (95% CI)	34		24			100.0	-0.03 [-0.55, 0.49]
Test for heterogeneity: not applicable							
Test for overall effect z=0.11 p=0.9							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	34		24			100.0	-0.03 [-0.55, 0.49]
Test for heterogeneity: not applicable							
Test for overall effect z=0.11 p=0.9							



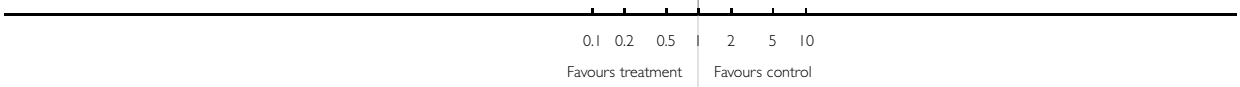
Analysis 09.01. Comparison 09 Guided self-help versus specialist psychotherapy (CBT &/or IPT), Outcome 01 Non-Abstinence rates for binge eating at end of therapy

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 09 Guided self-help versus specialist psychotherapy (CBT %/or IPT)

Outcome: 01 Non-Abstinence rates for binge eating at end of therapy

Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Bailer 2003	37/40	36/41		100.0	1.05 [0.91, 1.22]
Subtotal (95% CI)	40	41		100.0	1.05 [0.91, 1.22]
Total events: 37 (Treatment), 36 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect z=0.71 p=0.5					
02 Binge Eating Disorder					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
Total (95% CI)	40	41		100.0	1.05 [0.91, 1.22]
Total events: 37 (Treatment), 36 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect z=0.71 p=0.5					



Analysis 09.02. Comparison 09 Guided self-help versus specialist psychotherapy (CBT &/or IPT), Outcome 02 Mean end of trial bulimic symptoms (where possible binge eating frequency)

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 09 Guided self-help versus specialist psychotherapy (CBT %/or IPT)

Outcome: 02 Mean end of trial bulimic symptoms (where possible binge eating frequency)

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Bailer 2003	40	7.67 (9.06)	41	16.31 (23.65)		50.8	-0.48 [-0.92, -0.03]
Durand 2003	34	16.40 (17.40)	34	12.60 (14.20)		49.2	0.24 [-0.24, 0.71]
Subtotal (95% CI)	74		75			100.0	-0.13 [-0.82, 0.57]
Test for heterogeneity chi-square=4.61 df=1 p=0.03 I?? =78.3%							
Test for overall effect z=0.35 p=0.7							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	74		75			100.0	-0.13 [-0.82, 0.57]
Test for heterogeneity chi-square=4.61 df=1 p=0.03 I?? =78.3%							
Test for overall effect z=0.35 p=0.7							

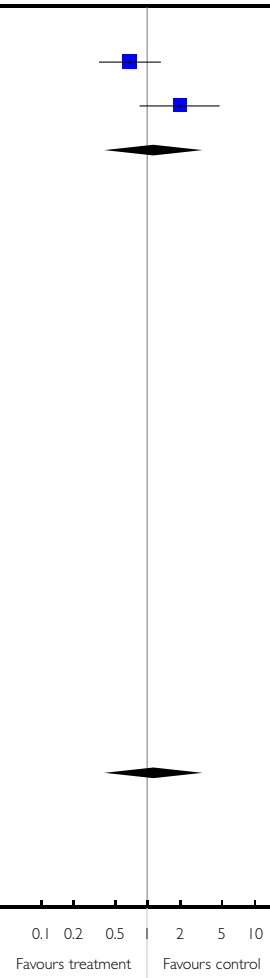
Analysis 09.03. Comparison 09 Guided self-help versus specialist psychotherapy (CBT &/or IPT), Outcome 03 Number of people who dropped out for any reason

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 09 Guided self-help versus specialist psychotherapy (CBT %/or IPT)

Outcome: 03 Number of people who dropped out for any reason

Study	Treatment n/N	Control n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Bailer 2003	10/40	15/41		53.2	0.68 [0.35, 1.34]
Durand 2003	12/34	6/34		46.8	2.00 [0.85, 4.71]
Subtotal (95% CI)	74	75		100.0	1.13 [0.39, 3.24]
Total events: 22 (Treatment), 21 (Control)					
Test for heterogeneity chi-square=3.75 df=1 p=0.05 I?? =73.4%					
Test for overall effect z=0.23 p=0.8					
02 Binge Eating Disorder					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
03 Eating Disorder Not Otherwise Specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined Diagnoses					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Treatment), 0 (Control)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
Total (95% CI)	74	75		100.0	1.13 [0.39, 3.24]
Total events: 22 (Treatment), 21 (Control)					
Test for heterogeneity chi-square=3.75 df=1 p=0.05 I?? =73.4%					
Test for overall effect z=0.23 p=0.8					



Analysis 09.04. Comparison 09 Guided self-help versus specialist psychotherapy (CBT &/or IPT), Outcome 04 Mean scores on depression rating scale at end of treatment

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 09 Guided self-help versus specialist psychotherapy (CBT %/or IPT)

Outcome: 04 Mean scores on depression rating scale at end of treatment

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Bailer 2003	30	8.27 (8.33)	26	13.83 (11.48)		47.5	-0.55 [-1.09, -0.02]
Durand 2003	32	17.80 (11.70)	34	18.10 (10.60)		52.5	-0.03 [-0.51, 0.46]
Subtotal (95% CI)	62		60			100.0	-0.28 [-0.79, 0.24]
Test for heterogeneity chi-square=2.05 df=1 p=0.15 I?? =51.1%							
Test for overall effect z=1.05 p=0.3							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	62		60			100.0	-0.28 [-0.79, 0.24]
Test for heterogeneity chi-square=2.05 df=1 p=0.15 I?? =51.1%							
Test for overall effect z=1.05 p=0.3							

Analysis 09.05. Comparison 09 Guided self-help versus specialist psychotherapy (CBT &/or IPT), Outcome 05 Mean end of trial scores of psychosocial or interpersonal functioning

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 09 Guided self-help versus specialist psychotherapy (CBT %/or IPT)

Outcome: 05 Mean end of trial scores of psychosocial or interpersonal functioning

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Durand 2003	3	2.30 (0.50)	34	2.30 (0.50)		100.0	0.00 [-1.18, 1.18]
Subtotal (95% CI)	3		34			100.0	0.00 [-1.18, 1.18]
Test for heterogeneity: not applicable							
Test for overall effect z=0.00 p=1							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	3		34			100.0	0.00 [-1.18, 1.18]
Test for heterogeneity: not applicable							
Test for overall effect z=0.00 p=1							

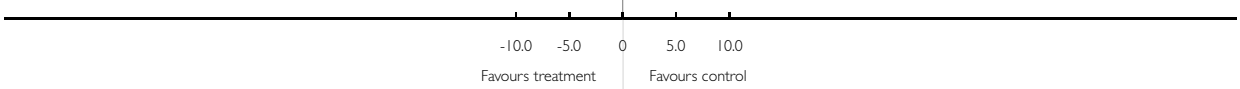
Analysis 09.06. Comparison 09 Guided self-help versus specialist psychotherapy (CBT &/or IPT), Outcome 06 Mean scores on EDE restraint scale

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 09 Guided self-help versus specialist psychotherapy (CBT %/or IPT)

Outcome: 06 Mean scores on EDE restraint scale

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Durand 2003	34	2.80 (1.30)	34	2.60 (1.40)		100.0	0.15 [-0.33, 0.62]
Subtotal (95% CI)	34		34			100.0	0.15 [-0.33, 0.62]
Test for heterogeneity: not applicable							
Test for overall effect z=0.60 p=0.5							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	34		34			100.0	0.15 [-0.33, 0.62]
Test for heterogeneity: not applicable							
Test for overall effect z=0.60 p=0.5							



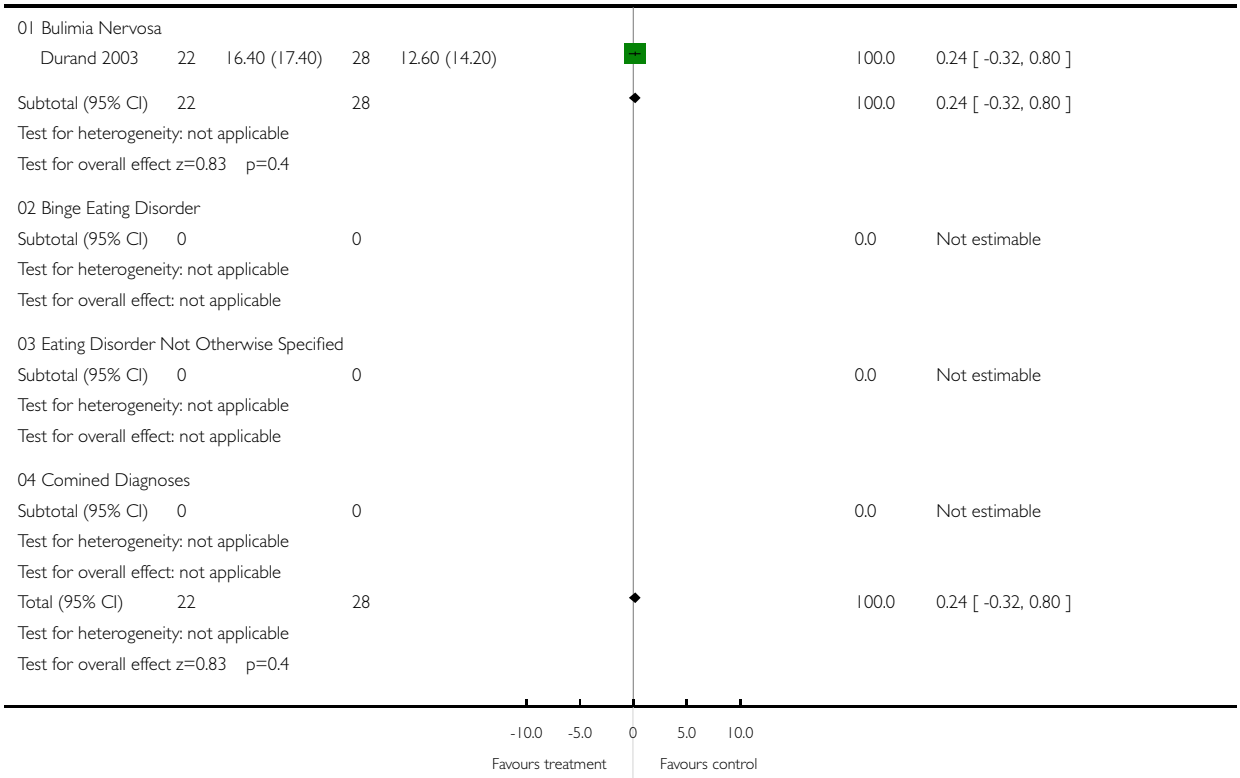
Analysis 09.07. Comparison 09 Guided self-help versus specialist psychotherapy (CBT &/or IPT), Outcome 07 6 month objective bulimic episodes

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 09 Guided self-help versus specialist psychotherapy (CBT %/or IPT)

Outcome: 07 6 month objective bulimic episodes

Study	Guided Self Help N	Guided Self Help Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Durand 2003	22	16.40 (17.40)	28	12.60 (14.20)		100.0	0.24 [-0.32, 0.80]
Subtotal (95% CI)	22		28			100.0	0.24 [-0.32, 0.80]
Test for heterogeneity: not applicable							
Test for overall effect z=0.83 p=0.4							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Comined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	22		28			100.0	0.24 [-0.32, 0.80]
Test for heterogeneity: not applicable							
Test for overall effect z=0.83 p=0.4							



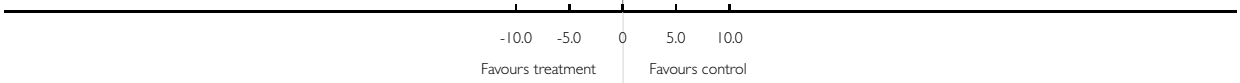
Analysis 09.08. Comparison 09 Guided self-help versus specialist psychotherapy (CBT &/or IPT), Outcome 08 6 month interpersonal functioning

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 09 Guided self-help versus specialist psychotherapy (CBT %/or IPT)

Outcome: 08 6 month interpersonal functioning

Study	Guided Self Help N	Guided Self Help Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Durand 2003	22	2.30 (0.50)	28	2.30 (0.50)		100.0	0.00 [-0.56, 0.56]
Subtotal (95% CI)	22		28			100.0	0.00 [-0.56, 0.56]
Test for heterogeneity: not applicable							
Test for overall effect z=0.00 p=1							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	22		28			100.0	0.00 [-0.56, 0.56]
Test for heterogeneity: not applicable							
Test for overall effect z=0.00 p=1							



Analysis 09.09. Comparison 09 Guided self-help versus specialist psychotherapy (CBT &/or IPT), Outcome 09 6 month depression scores

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 09 Guided self-help versus specialist psychotherapy (CBT %/or IPT)

Outcome: 09 6 month depression scores

Study	Guided Self Help N	Mean(SD)	Control N	Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Bailer 2003	40	8.27 (8.33)	41	13.83 (11.48)		55.5	-0.55 [-0.99, -0.10]
Durand 2003	22	17.80 (11.70)	28	18.10 (10.60)		44.5	-0.03 [-0.59, 0.53]
Subtotal (95% CI)	62		69			100.0	-0.32 [-0.82, 0.19]
Test for heterogeneity chi-square=2.05 df=1 p=0.15 I?? =51.3%							
Test for overall effect z=1.22 p=0.2							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	62		69			100.0	-0.32 [-0.82, 0.19]
Test for heterogeneity chi-square=2.05 df=1 p=0.15 I?? =51.3%							
Test for overall effect z=1.22 p=0.2							

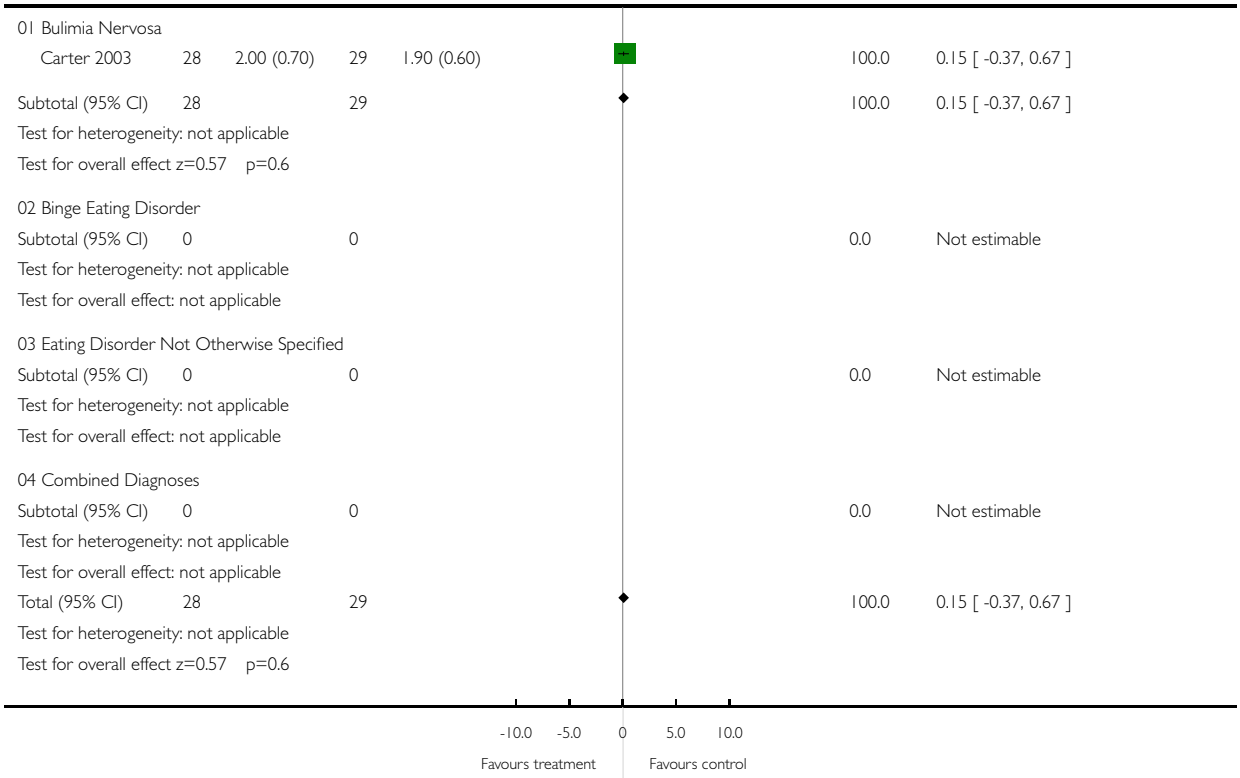
Analysis 10.01. Comparison 10 Pure self help versus waitlist control group, Outcome 01 Mean end of trial interpersonal functioning

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 10 Pure self help versus waitlist control group

Outcome: 01 Mean end of trial interpersonal functioning

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Carter 2003	28	2.00 (0.70)	29	1.90 (0.60)		100.0	0.15 [-0.37, 0.67]
Subtotal (95% CI)	28		29			100.0	0.15 [-0.37, 0.67]
Test for heterogeneity: not applicable							
Test for overall effect z=0.57 p=0.6							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	28		29			100.0	0.15 [-0.37, 0.67]
Test for heterogeneity: not applicable							
Test for overall effect z=0.57 p=0.6							



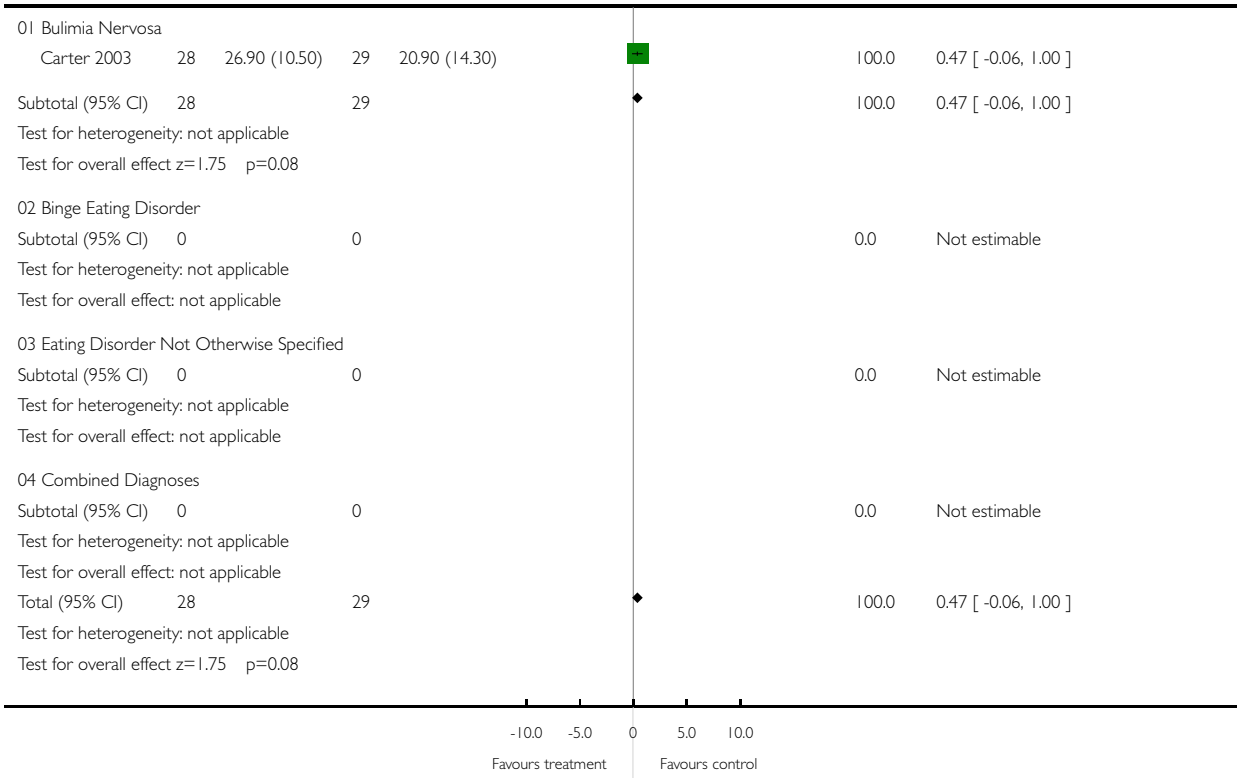
Analysis 10.02. Comparison 10 Pure self help versus waitlist control group, Outcome 02 Mean end of trial depression scores

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 10 Pure self help versus waitlist control group

Outcome: 02 Mean end of trial depression scores

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Carter 2003	28	26.90 (10.50)	29	20.90 (14.30)		100.0	0.47 [-0.06, 1.00]
Subtotal (95% CI)	28		29			100.0	0.47 [-0.06, 1.00]
Test for heterogeneity: not applicable							
Test for overall effect z=1.75 p=0.08							
02 Binge Eating Disorder							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
03 Eating Disorder Not Otherwise Specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined Diagnoses							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
Total (95% CI)	28		29			100.0	0.47 [-0.06, 1.00]
Test for heterogeneity: not applicable							
Test for overall effect z=1.75 p=0.08							



Analysis 10.03. Comparison 10 Pure self help versus waitlist control group, Outcome 03 Number of dropouts due to any reason

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 10 Pure self help versus waitlist control group

Outcome: 03 Number of dropouts due to any reason

Study	Pure CBT selfhelp n/N	Waitlist n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Carter 2003	5/28	8/29		34.4	0.65 [0.24, 1.74]
Subtotal (95% CI)	28	29		34.4	0.65 [0.24, 1.74]
Total events: 5 (Pure CBT selfhelp), 8 (Waitlist)					
Test for heterogeneity: not applicable					
Test for overall effect z=0.86 p=0.4					
02 Binge eating disorder					
Carter 1998	0/24	1/24		3.4	0.33 [0.01, 7.80]
Subtotal (95% CI)	24	24		3.4	0.33 [0.01, 7.80]
Total events: 0 (Pure CBT selfhelp), 1 (Waitlist)					
Test for heterogeneity: not applicable					
Test for overall effect z=0.68 p=0.5					
03 Eating disorder not otherwise specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Pure CBT selfhelp), 0 (Waitlist)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined diagnoses					
Treasure 1996	14/55	8/27		62.2	0.86 [0.41, 1.79]
Subtotal (95% CI)	55	27		62.2	0.86 [0.41, 1.79]
Total events: 14 (Pure CBT selfhelp), 8 (Waitlist)					
Test for heterogeneity: not applicable					
Test for overall effect z=0.40 p=0.7					
Total (95% CI)	107	80		100.0	0.75 [0.42, 1.35]
Total events: 19 (Pure CBT selfhelp), 17 (Waitlist)					
Test for heterogeneity chi-square=0.48 df=2 p=0.79 I?? =0.0%					
Test for overall effect z=0.95 p=0.3					

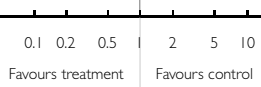
Analysis 10.04. Comparison 10 Pure self help versus waitlist control group, Outcome 04 Number of people who did not show remission

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 10 Pure self help versus waitlist control group

Outcome: 04 Number of people who did not show remission

Study	Pure self-help n/N	Waitlist n/N	Relative Risk (Random) 95% CI	Weight (%)	Relative Risk (Random) 95% CI
01 Bulimia Nervosa					
Carter 2003	26/28	26/29		38.5	1.04 [0.88, 1.22]
Subtotal (95% CI)	28	29		38.5	1.04 [0.88, 1.22]
Total events: 26 (Pure self-help), 26 (Waitlist)					
Test for heterogeneity: not applicable					
Test for overall effect z=0.43 p=0.7					
02 Binge eating disorder					
Carter 1998	9/24	22/24		23.8	0.41 [0.24, 0.70]
Subtotal (95% CI)	24	24		23.8	0.41 [0.24, 0.70]
Total events: 9 (Pure self-help), 22 (Waitlist)					
Test for heterogeneity: not applicable					
Test for overall effect z=3.30 p=0.001					
03 Eating disorder not otherwise specified					
Subtotal (95% CI)	0	0		0.0	Not estimable
Total events: 0 (Pure self-help), 0 (Waitlist)					
Test for heterogeneity: not applicable					
Test for overall effect: not applicable					
04 Combined diagnoses					
Treasure 1996	44/55	24/27		37.7	0.90 [0.75, 1.09]
Subtotal (95% CI)	55	27		37.7	0.90 [0.75, 1.09]
Total events: 44 (Pure self-help), 24 (Waitlist)					
Test for heterogeneity: not applicable					
Test for overall effect z=1.10 p=0.3					
Total (95% CI)	107	80		100.0	0.79 [0.53, 1.17]
Total events: 79 (Pure self-help), 72 (Waitlist)					
Test for heterogeneity chi-square=16.76 df=2 p=0.0002 I?? =88.1%					
Test for overall effect z=1.17 p=0.2					



Analysis 10.05. Comparison 10 Pure self help versus waitlist control group, Outcome 05 Mean difference in binge frequency

Review: Psychotherapy for bulimia nervosa and binging

Comparison: 10 Pure self help versus waitlist control group

Outcome: 05 Mean difference in binge frequency

Study	Treatment N	Treatment Mean(SD)	Control N	Control Mean(SD)	Standardised Mean Difference (Random) 95% CI	Weight (%)	Standardised Mean Difference (Random) 95% CI
01 Bulimia Nervosa							
Carter 2003	28	23.10 (31.10)	29	26.20 (19.40)		34.1	-0.12 [-0.64, 0.40]
Subtotal (95% CI)	28		29			34.1	-0.12 [-0.64, 0.40]
Test for heterogeneity: not applicable							
Test for overall effect z=0.45 p=0.7							
02 Binge eating disorder							
Carter 1998	24	9.30 (11.70)	24	13.50 (10.30)		29.0	-0.37 [-0.95, 0.20]
Subtotal (95% CI)	24		24			29.0	-0.37 [-0.95, 0.20]
Test for heterogeneity: not applicable							
Test for overall effect z=1.29 p=0.2							
03 Eating disorder not otherwise specified							
Subtotal (95% CI)	0		0			0.0	Not estimable
Test for heterogeneity: not applicable							
Test for overall effect: not applicable							
04 Combined diagnoses							
Treasure 1996	52	43.50 (26.70)	24	61.40 (24.97)		36.9	-0.68 [-1.17, -0.18]
Subtotal (95% CI)	52		24			36.9	-0.68 [-1.17, -0.18]
Test for heterogeneity: not applicable							
Test for overall effect z=2.67 p=0.007							
Total (95% CI)	104		77			100.0	-0.40 [-0.73, -0.07]
Test for heterogeneity chi-square=2.33 df=2 p=0.31 I?? =14.2%							
Test for overall effect z=2.38 p=0.02