NKR23 - PICO3 - Bulimia Nervosa: Individual versus group therapy

Characteristics of studies

Characteristics of included studies

Chen 2003

Methods	**Study design:** Randomized controlled trial **Study grouping:** **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Group therapy ● *Frequency*: 19 gange på 4,5 mdr. 90 minute sessions. ● *Content*: The GCBT treatment was adapted from the Oxford manual (Fairburn et al., 1993) and reviewed by Fairburn. The handouts, session schedule, and content were identical to ICBT. At the beginning of each stage, the agenda for the following sessions in the stage was established and revised at the start of each session. During the first 30–40 minutes of each session, the therapist reviewed each individual’s self-monitoring while the rest of the group read material, reviewed strategies, or participated in a structured activity (e.g., listing the negative effects of BN). Like ICBT patients, group patients were given the option to have a family and friends information evening that was only conducted if all members desired it. Individual therapy ● *Frequency*: nineteen 50-min sessions spread over 4.5 months ● *Content*: The ICBT treatment followed the semistructured, three-stage program of nineteen 50-min sessions spread over 4.5 months (Fairburn et al., 1993). Patients had access to the self-help book published by Fairburn (1995). Stage 1 patients were given the option of an information session with friends or family **Included criteria:** female, 18 years or older, met BN criteria in the4th ed. of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; AmericanPsychiatric Association, 1994), had a body mass index (BMI) between 19 and 27, and gaveinformed consent. **Excluded criteria:** Patients were excluded if they were currently receiving treatment forBN, were a suicide risk or were medically compromised, met diagnosis for other mentalillnesses (this was later dropped) or were unable to be present for the study, or lived more than 1.5 hr away fromthe University of Sydney.
Interventions	**Intervention Characteristics** Group therapy ● *Age (SD)*: no info ● *BN/BN-like (% of sample (N))*: 100 (30) ● *Sex (female % of sample (N))*: 100 (30) ● *BMI (SD)*: no info Individual therapy ● *Age (SD)*: no info ● *BN/BN-like (% of sample (N))*: 100 (30) ● *Sex (female % of sample (N))*: 100 (30) ● *BMI (SD)*: no info
Outcomes	*Continuous*: ● EDI body dissatisfaction ● EDE weight concern ● EDI drive for thinness ● EDI bulimia ● EDE eating concern ● EDE restraint ● Binges/week ● Binges/month ● Purges/month ● Vomiting/month ● EDE global ● EDE shape concern ● Livskvalitet ● Funktionsevne ● Vomiting/week *Dichotomous*: ● Dropout ● Remission of ED ● Remission of ED ● Binge eating abstinence ● Vomiting abstinence
Identification	**Sponsorship source:** This study was supported by a small Australian Research Council grant and EC wassupported by an Australian Postgraduate Award. CGF is supported by a Principal ResearchFellowship award from the Wellcome Trust (046386). **Country:** Australia **Setting:** outpatient

	Comments: **Authors name:** Eunice Chen **Institution:** Yale Center of Eating and Weight Disorders, Department of Psychology, Yale University, New Haven, Connecticut **Email:** echen@u.washington.edu **Address:** Department of Psychology, Yale University, P.O. Box 208205, New Haven,CT 06520-8205.
Notes	**Identification:** **Participants:** **Study design:** **Baseline characteristics:** **Intervention characteristics:** **Pretreatment:** **Continuous outcomes:** **Dichotomous outcomes:** **Adverse outcomes:**

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	
Allocation concealment (selection bias)	Low risk	
Blinding of participants and personnel (performance bias)	High risk	
Blinding of outcome assessment (detection bias)	High risk	
Incomplete outcome data (attrition bias)	Low risk	
Selective reporting (reporting bias)	Unclear risk	n.i.
Other bias	Low risk	

Katzman 2010

Methods	**Study design:** Randomized controlled trial **Study grouping:** **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Group therapy • *Frequency*: Phase 2 consisted of eight sessions of individual or group CBT. Group sessions lasted 90 minutes, had between six to eight participants, and were moderated by two therapists. • *Content*: four individual sessions of manualized individual MET. In contrast to the well-known CBT-BN program of Fairburn and colleagues (2), the group treatment used here (19,21) is briefer (8 versus 19 sessions) and emphasized women's development of interpersonal competencies. In both conditions, patients worked with the manual, "You Can't Have Your Cake and Eat It Too: A Progam for Controlling Bulimia" (19). The structure of Phase 2 sessions followed the chapter topics of the book. Each week included discussion and exercises to educate women about the physical and psychological hazards of eating disorders, challenging myths, and identifying ways women might undermine their own success. During weekly sessions, therapists integrated nutritional information (realistic caloric consumption, meal planning, etc.) and methods to modify extreme, unhelpful thinking. Perfectionist ideas about one's body and behavior were identified and ways to assert one's feelings and express anger were reviewed. Individual therapy • *Frequency*: Phase 2 consisted of eight sessions of individual or group CBT. Individual sessions lasted 50 minutes. • *Content*: four individual sessions of manualized individual MET. In both conditions, patients worked with the manual, "You Can't Have Your Cake and Eat It Too: A Progam for Controlling Bulimia" (19). The structure of Phase 2 sessions followed the chapter topics of the book. Each week included discussion and exercises to educate women about the physical and psychological hazards of eating disorders, challenging myths, and identifying ways women might undermine their own success. During weekly sessions, therapists integrated nutritional information (realistic caloric consumption, meal planning, etc.) and methods to modify extreme, unhelpful thinking. Perfectionist ideas about one's body and behavior were identified and ways to assert one's feelings and express anger were reviewed. **Included criteria:** All patients fulfilling the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition criteria for BN or EDNOS were eligible for the study. We defined EDNOS as subthreshold BN—a clinically relevant eating disorder (i.e., significant impairment of physical health or psychosocial functioning) where the patient met the criteria for BN except that the binge eating and/or inappropriate compensatory behaviors occurred at a frequency of less than twice a week or for a duration of 3 months. **Excluded criteria:** The exclusion criteria were pregnancy, diabetes mellitus, severe mental illness (such as schizophrenia or bipolar illness), severe learning disability, inability to commit to treatment from the outset, or referral for assessment only.
Interventions	**Intervention Characteristics** Group therapy • *Age (SD)*: 28.9 (8.1) • *BN/BN-like (% of sample (N))*: 100 (73) • *Sex (female % of sample (N))*: no info • *BMI (SD)*: 23.5 (5.9) Individual therapy • *Age (SD)*: 31 (7.7) • *BN/BN-like (% of sample (N))*: 100 (79)

	● *Sex (female % of sample (N))*: no info ● *BMI (SD)*: 25.1 (7.7)
Outcomes	*Continuous*: ● EDI body dissatisfaction ● EDE weight concern ● EDI drive for thinness ● EDI bulimia ● EDE eating concern ● EDE restraint ● Binges/week ● Binges/month ● Purges/month ● Vomiting/month ● EDE global ● EDE shape concern ● Livskvalitet ● Funktionsevne ● Vomiting/week *Dichotomous*: ● Dropout ● Remission of ED ● Remission of ED ● Binge eating abstinence ● Vomiting abstinence
Identification	**Sponsorship source:** The authors have not disclosed any potential conflicts of interest. **Country:** USA **Setting:** busy outpatient setting **Comments:** **Authors name:** MELANIE A. KATZMAN **Institution:** Department of Psychiatry (M.A.K.), Weill Cornell Medical Center, New York **Email:** mkatzman@katzmanconsulting.com **Address:** Melanie A. Katzman, 10East 78th Street, Suite 4A, New York, NY 10075.
Notes	**Identification:** **Participants:** **Study design:** **Baseline characteristics:** **Intervention characteristics:** **Pretreatment:** **Continuous outcomes:** **Dichotomous outcomes:** **Adverse outcomes:**

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	
Allocation concealment (selection bias)	Low risk	
Blinding of participants and personnel (performance bias)	High risk	
Blinding of outcome assessment (detection bias)	High risk	
Incomplete outcome data (attrition bias)	Unclear risk	n.i.
Selective reporting (reporting bias)	Unclear risk	n.i.
Other bias	Low risk	

Nevonen 2006

Methods	**Study design:** Randomized controlled trial **Study grouping:** **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Group therapy ● *Frequency*: 23 sessions over a period of 20 weeks. Group sessions were 2 hr in the evening between 5 p.m. and 7 p.m., and occurred twice weekly for the first 3 weeks, and weekly thereafter for 17 weeks. The first phase, of 10 sessions, is symptom focused and based on CBT techniques, whereas the second phase, of 13 sessions, is interpersonally focused and based on IPT techniques. ● *Content*: GRP is based on a detailed treatment manual,21 previously tested in our pilot study, which is based on published CBT22 and IPT23 manuals. Individual therapy ● *Frequency*: 50–60 min weekly for 23 weeks. The first phase, of 10 sessions, is symptom focused and based on CBT techniques, whereas the second phase, of 13 sessions, is interpersonally focused and based on IPT techniques.

	● *Content*: CBT used in the current study is a concise treatment including key elements (e.g., cognitive view, homework with self-monitoring sheets, dysfunctional eating patterns, identification of binge eating, information about self-esteem, dieting, body/weight/shape, binge eating, compensatory behaviors and physical consequences, shape/weight and cognitive distortions, coping strategies, and relapse prevention) of CBT. If interpersonal problems arose during the CBT treatment, therapists referred the subjects to the upcoming IPT. IPT24 was adapted for eating disorders by Fairburn13 and focuses on current interpersonal problem areas (grief, interpersonal disputes, role transitions, and interpersonal deficits) in an eating disorder context. Participants are encouraged to recognize, accept, and express their interpersonal experience and attempt other ways of functioning. The IPT used in the current study was of shorter duration compared with what has been described elsewhere.13 The sequenced treatment is divided into two phases. **Included criteria:** inclusioncriteria: (a) being of female gender, (b) being 18–24years of age, (c) meeting DSM-IV criteria for BN, (d)accepting both IND and GRP, and (e) having a bodymass index (BMI) > 18 kg/m2. **Excluded criteria:** Exclusion criteria were(a) current alcohol and/or drug abuse, (b) current psychoticdisorder, (c) current receipt of psychopharmacologicmedication and/or psychotherapy, and (d) suicidalbehavior.
Interventions	**Intervention Characteristics** Group therapy ● *Age (SD)*: 21.1 (2.0) ● *BN/BN-like (% of sample (N))*: 100 (44) ● *Sex (female % of sample (N))*: 100 (44) ● *BMI (SD)*: 21.5 (2.1) Individual therapy ● *Age (SD)*: 20.3 (2.0) ● *BN/BN-like (% of sample (N))*: 100 (42) ● *Sex (female % of sample (N))*: 100 (42) ● *BMI (SD)*: 21.9 (2.1)
Outcomes	*Continuous*: ● EDI body dissatisfaction ● EDE weight concern ● EDI drive for thinness ● EDI bulimia ● EDE eating concern ● EDE restraint ● Binges/week ● Binges/month ● Purges/month ● Vomiting/month ● EDE global ● EDE shape concern ● Livskvalitet ● Funktionsevne ● Vomiting/week ● Purges/week ● Binges/days pr week ● Purges/days pr week ● EDI subscales 1-3 *Dichotomous*: ● Dropout ● Remission of ED ● Remission of ED ● Binge eating abstinence ● Vomiting abstinence
Identification	**Sponsorship source:** Supported by a grant from the Vårdal Foundation, Sweden **Country:** Sweden **Setting:** outpatient **Comments:** **Authors name:** Lauri Nevonen **Institution:** Anorexia-Bulimia Unit, Queen Silvia Children's Hospital, Child and Adolescent Psychiatry Center **Email:** Lauri.Nevonen@vgregion.se **Address:** Anorexia-Bulimia Unit, Queen Silvia Children's Hospital, Child and Adolescent Psychiatry Center, s-461 85 Göteborg, Sweden.
Notes	**Identification:** **Participants:** **Study design:** **Baseline characteristics:** **Intervention characteristics:** **Pretreatment:** **Continuous outcomes:** **Dichotomous outcomes:** **Adverse outcomes:**

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	n.i.
Allocation concealment (selection bias)	Low risk	
Blinding of participants and personnel (performance bias)	High risk	
Blinding of outcome assessment (detection bias)	Low risk	
Incomplete outcome data (attrition bias)	Low risk	
Selective reporting (reporting bias)	Unclear risk	n.i.
Other bias	Low risk	

Footnotes

Characteristics of excluded studies

Cooper 1995

Reason for exclusion	Wrong comparator

Crosby 1993

Reason for exclusion	Wrong intervention

Davis 1999

Reason for exclusion	Wrong comparator

Freeman 1985

Reason for exclusion	Part of another included study

Lavender 2012

Reason for exclusion	Wrong intervention

Mitchell 1993

Reason for exclusion	Wrong intervention

Pingani 2010

Reason for exclusion	Wrong intervention

Schmidt 2008

Reason for exclusion	Wrong intervention

ScottRichards 2006

Reason for exclusion	Wrong comparator

Sundgot Borgen 2002

Reason for exclusion	Wrong intervention

Tantillo 2003

Reason for exclusion	Wrong comparator

Thiels 1998

Reason for exclusion	Wrong comparator

Treasure 1999

Reason for exclusion	Wrong comparator

Vocks 2011

Reason for exclusion	Wrong comparator

Footnotes

Characteristics of studies awaiting classification

Footnotes

Characteristics of ongoing studies

Footnotes

References to studies

Included studies

Chen 2003

Chen,E.; Touyz,S. W.; Beumont,P. J. V.; Fairburn,C. G.; Griffiths,R.; Butow,P.; Russell,J.; Schotte,D. E.; Gertler,R.; Basten,C.. Comparison of group and individual cognitive-behavioral therapy for patients with bulimia nervosa. International Journal of Eating Disorders 2003;33(3):241-254. [DOI:]

Katzman 2010

Katzman,M. A.; Bara-Carril,N.; Rabe-Hesketh,S.; Schmidt,U.; Troop,N.; Treasure,J.. A randomized controlled two-stage trial in the treatment of bulimia nervosa, comparing CBT versus motivational enhancement in Phase 1 followed by group versus individual CBT in Phase 2.. Psychosomatic medicine 2010;72(7):656-663. [DOI:]

Nevonen 2006

Nevonen,L.; Broberg,A. G.. A comparison of sequenced individual and group psychotherapy for patients with bulimia nervosa.. International Journal of Eating Disorders 2006;39(2):117-127. [DOI:]

Excluded studies

Cooper 1995

Cooper,P. J.; Steere,J.. A comparison of two psychological treatments for bulimia nervosa: implications for models of maintenance. Behaviour research and therapy 1995;33(8):875-885. [DOI: 000579679500033T [pii]]

Crosby 1993

Crosby, R. D.; Mitchell, J. E.; Raymond, N.; Specker, S.; Nugent, S. M.; Pyle, R. L.. Survival analysis of response to group psychotherapy in bulimia nervosa. International Journal of Eating Disorders 1993;13(4):359-68. [DOI:]

Davis 1999

Davis,R.; McVey,G.; Heinmaa,M.; Rockert,W.; Kennedy,S.. Sequencing of cognitive-behavioral treatments for bulimia nervosa. International Journal of Eating Disorders 1999;25(4):361-374. [DOI:]

Freeman 1985

Freeman,C.; Sinclair,F.; Turnbull,J.; Annandale,A.. Psychotherapy for bulimia: a controlled study. Journal of psychiatric research 1985;19(2-3):373-378. [DOI:]

Lavender 2012

Lavender,A.; Startup,H.; Naumann,U.; Samarawickrema,N.; Dejong,H.; Kenyon,M.; van den Eynde,F.; Schmidt,U.. Emotional and social mind training: a randomised controlled trial of a new group-based treatment for bulimia nervosa.. PLoS ONE [Electronic Resource] 2012;7(10):e46047. [DOI:]

Mitchell 1993

Mitchell,J. E.; Pyle,R. L.; Pomeroy,C.; Zollman,M.; Crosby,R.; Seim,H.; Eckert,E. D.; Zimmerman,R.. Cognitive-behavioral group psychotherapy of bulimia nervosa: Importance of logistical variables. International Journal of Eating Disorders 1993;14(3):277-287. [DOI:]

Pingani 2010

Pingani,L.. The effects of a literary workshop for increase assertivity in patients with eating disorders.. European Pyschiatry 2010;25(Suppl. 1):1714-1714. [DOI:]

Schmidt 2008

Schmidt,U.; Andiappan,M.; Graver,M.; Robinson,S.; Perkins,S.; Dugmore,O.; Landau,S.; Treasure,J.; Eisler,I.; Williams,C.. Randomised controlled trial of CD-ROM-based cognitive-behavioural self-care for bulimia nervosa.. British Journal of Psychiatry 2008;193(6):493-500. [DOI:]

ScottRichards 2006

Scott Richards,P.; Berrett,M. E.; Hardman,R. K.; Eggett,D. L.. Comparative efficacy of spirituality, cognitive, and emotional support groups for treating eating disorder inpatients.. Eating Disorders 2006;14(5):401-415. [DOI:]

Sundgot Borgen 2002

Sundgot-Borgen,J.; Rosenvinge,J. H.; Bahr,R.; Schneider,L. S.. The effect of exercise, cognitive therapy, and nutritional counseling in treating bulimia nervosa. Medicine and science in sports and exercise 2002;34(2):190-195. [DOI:]

Tantillo 2003

Tantillo,M.; Sanftner,J.. The relationship between perceived mutuality and bulimic symptoms, depression, and therapeutic change in group. Eating Behaviors 2003;3(4):349-364. [DOI:]

Thiels 1998

Thiels, C.; Schmidt, U.; Treasure, J.; Garthe, R.; Troop, N.. Guided self-change for bulimia nervosa incorporating use of a self-care manual. The American Journal of Psychiatry 1998;155(7):947-53. [DOI:]

Treasure 1999

Treasure, J. L.; Katzman, M.; Schmidt, U.; Troop, N.; Todd, G.; de Silva, P.. Engagement and outcome in the treatment of bulimia nervosa: first phase of a sequential design comparing motivation enhancement therapy and cognitive behavioural therapy. Behaviour Research & Therapy 1999;37(5):405-18. [DOI: S0005-7967(98)00149-1 [pii]]

Vocks 2011

Vocks,S.; Schulte,D.; Busch,M.; Grönemeyer,D.; Herpertz,S.; Suchan,B.. Changes in neuronal correlates of body image processing by means of cognitive-behavioural body image therapy for eating disorders: A randomized controlled fMRI study. Psychological medicine 2011;41(8):1651-1663. [DOI:]

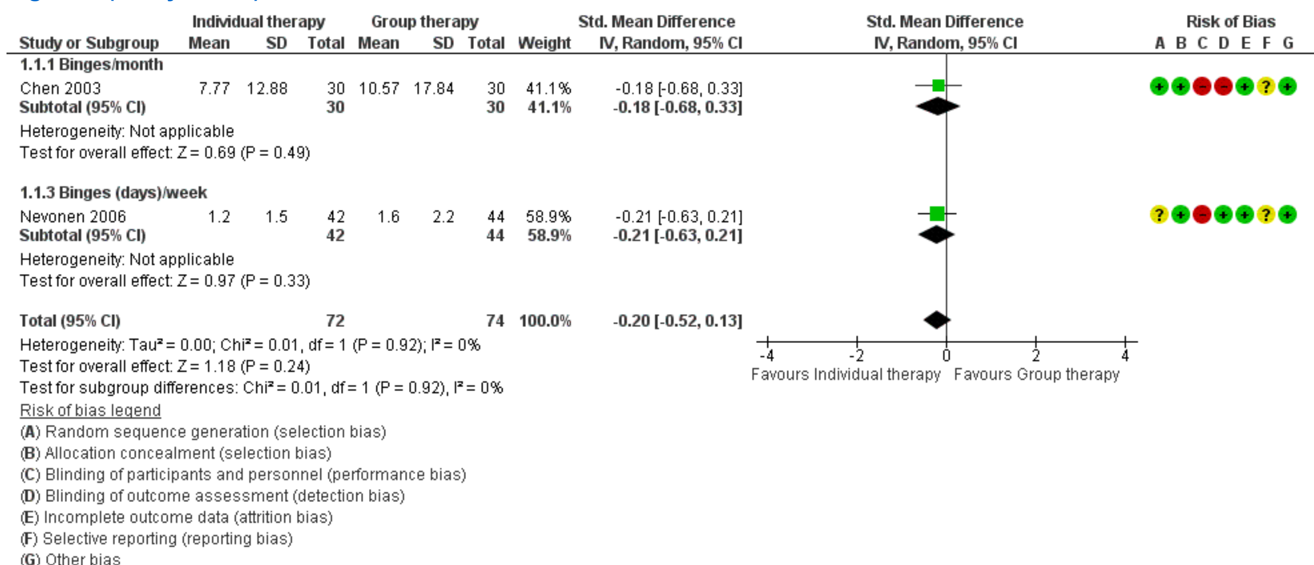
Data and analyses

1 Individual therapy vs Group therapy

Outcome or Subgroup	Studies	Participants	Statistical Method	Effect Estimate
1.1 ED behaviour, Binge eating, end of treatment	2	146	Std. Mean Difference (IV, Random, 95% CI)	-0.20 [-0.52, 0.13]
1.1.1 Binges/month	1	60	Std. Mean Difference (IV, Random, 95% CI)	-0.18 [-0.68, 0.33]
1.1.3 Binges (days)/week	1	86	Std. Mean Difference (IV, Random, 95% CI)	-0.21 [-0.63, 0.21]
1.2 ED behaviour, Binge eating, end of treatment	1	53	Risk Ratio (IV, Random, 95% CI)	0.95 [0.70, 1.30]
1.3 ED behaviour, Purging, End of treatment	2	142	Std. Mean Difference (IV, Random, 95% CI)	-0.24 [-0.57, 0.09]
1.3.1 Vomiting/month	1	56	Std. Mean Difference (IV, Random, 95% CI)	-0.25 [-0.78, 0.27]
1.3.3 Purges (days)/week	1	86	Std. Mean Difference (IV, Random, 95% CI)	-0.23 [-0.65, 0.20]
1.4 ED behaviour, Vomiting, end of treatment	1	53	Risk Ratio (IV, Random, 95% CI)	0.95 [0.70, 1.30]
1.5 Remission of ED, longest FU	3	179	Risk Ratio (M-H, Random, 95% CI)	1.27 [0.79, 2.05]
1.5.1 remission	2	146	Risk Ratio (M-H, Random, 95% CI)	1.39 [0.79, 2.44]
1.5.2 Binge eating abstinence	1	33	Risk Ratio (M-H, Random, 95% CI)	1.04 [0.43, 2.49]
1.6 Dropout, end of treatment	3	298	Risk Ratio (IV, Random, 95% CI)	0.88 [0.68, 1.15]
1.7 Psychological ED symptoms, EDE global, end of treatment	1	60	Mean Difference (IV, Random, 95% CI)	-0.24 [-1.19, 0.71]
1.8 Psychological ED symptoms, EDI subscales 1-3, end of treatment	1	86	Mean Difference (IV, Random, 95% CI)	-1.00 [-9.07, 7.07]
1.9 Psychological ED symptoms, EDI drive for thinness, end of treatment	1	60	Mean Difference (IV, Random, 95% CI)	0.57 [-2.36, 3.50]
1.10 Somatic complications, end of treatment	0	0	Odds Ratio (M-H, Fixed, 95% CI)	Not estimable
1.11 Level of Functioning, longest FU	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.12 Quality of life, longest FU	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable

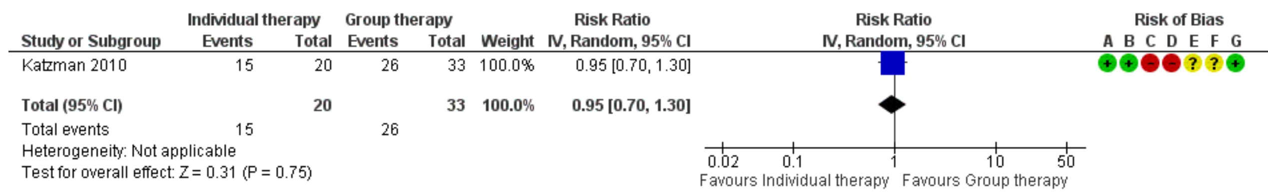
Figures

Figure 1 (Analysis 1.1)



Forest plot of comparison: 1 Individual therapy vs Group therapy, outcome: 1.1 ED behaviour, Binge eating, end of treatment.

Figure 2 (Analysis 1.2)

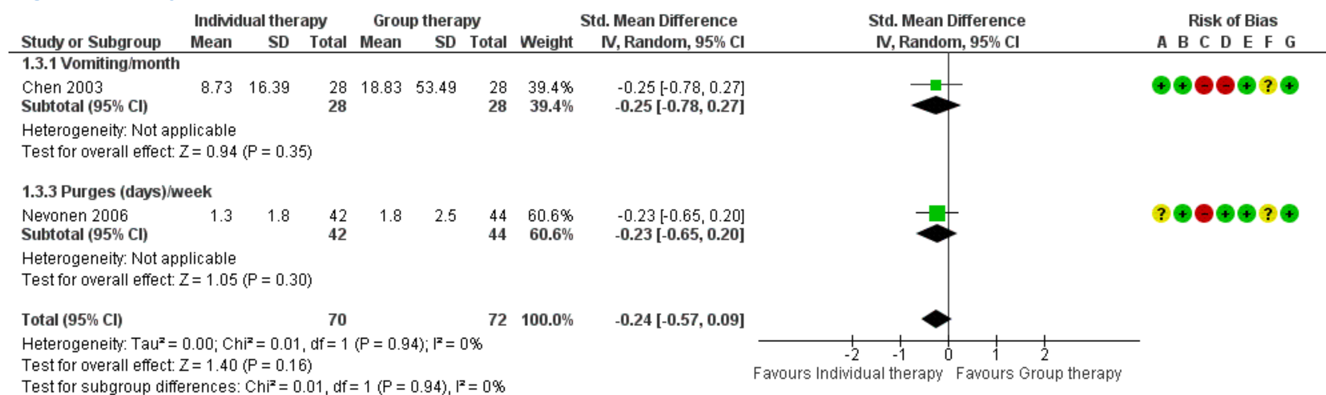


Study or Subgroup	Individual therapy Events	Individual therapy Total	Group therapy Events	Group therapy Total	Weight	Risk Ratio IV, Random, 95% CI	Risk of Bias A B C D E F G
Katzman 2010	15	20	26	33	100.0%	0.95 [0.70, 1.30]	+ + - - ? ? +
Total (95% CI)		**20**		**33**	**100.0%**	**0.95 [0.70, 1.30]**	
Total events	15		26				
Heterogeneity: Not applicable							
Test for overall effect: Z = 0.31 (P = 0.75)							

Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (attrition bias)
(F) Selective reporting (reporting bias)
(G) Other bias

Forest plot of comparison: 1 Individual therapy vs Group therapy, outcome: 1.2 ED behaviour, Binge eating, end of treatment.

Figure 3 (Analysis 1.3)

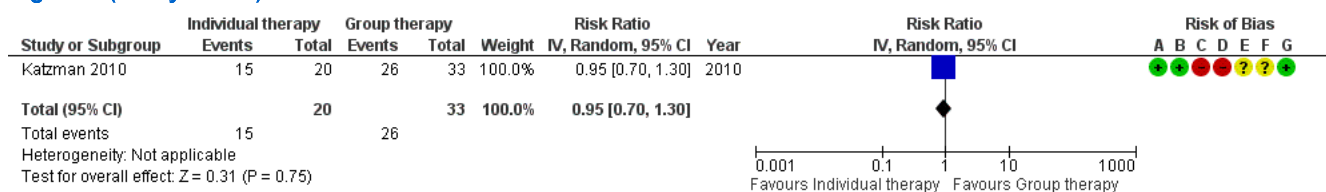


Study or Subgroup	Individual therapy Mean	Individual therapy SD	Individual therapy Total	Group therapy Mean	Group therapy SD	Group therapy Total	Weight	Std. Mean Difference IV, Random, 95% CI	Risk of Bias A B C D E F G
1.3.1 Vomiting/month									
Chen 2003	8.73	16.39	28	18.83	53.49	28	39.4%	-0.25 [-0.78, 0.27]	+ + - - + ? +
Subtotal (95% CI)			**28**			**28**	**39.4%**	**-0.25 [-0.78, 0.27]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.94 (P = 0.35)									
1.3.3 Purges (days)/week									
Nevonen 2006	1.3	1.8	42	1.8	2.5	44	60.6%	-0.23 [-0.65, 0.20]	? + - + + ? +
Subtotal (95% CI)			**42**			**44**	**60.6%**	**-0.23 [-0.65, 0.20]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.05 (P = 0.30)									
Total (95% CI)			**70**			**72**	**100.0%**	**-0.24 [-0.57, 0.09]**	
Heterogeneity: Tau² = 0.00; Chi² = 0.01, df = 1 (P = 0.94); I² = 0%									
Test for overall effect: Z = 1.40 (P = 0.16)									
Test for subgroup differences: Chi² = 0.01, df = 1 (P = 0.94), I² = 0%									

Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (attrition bias)
(F) Selective reporting (reporting bias)
(G) Other bias

Forest plot of comparison: 1 Individual therapy vs Group therapy, outcome: 1.3 ED behaviour, Purging, End of treatment.

Figure 4 (Analysis 1.4)

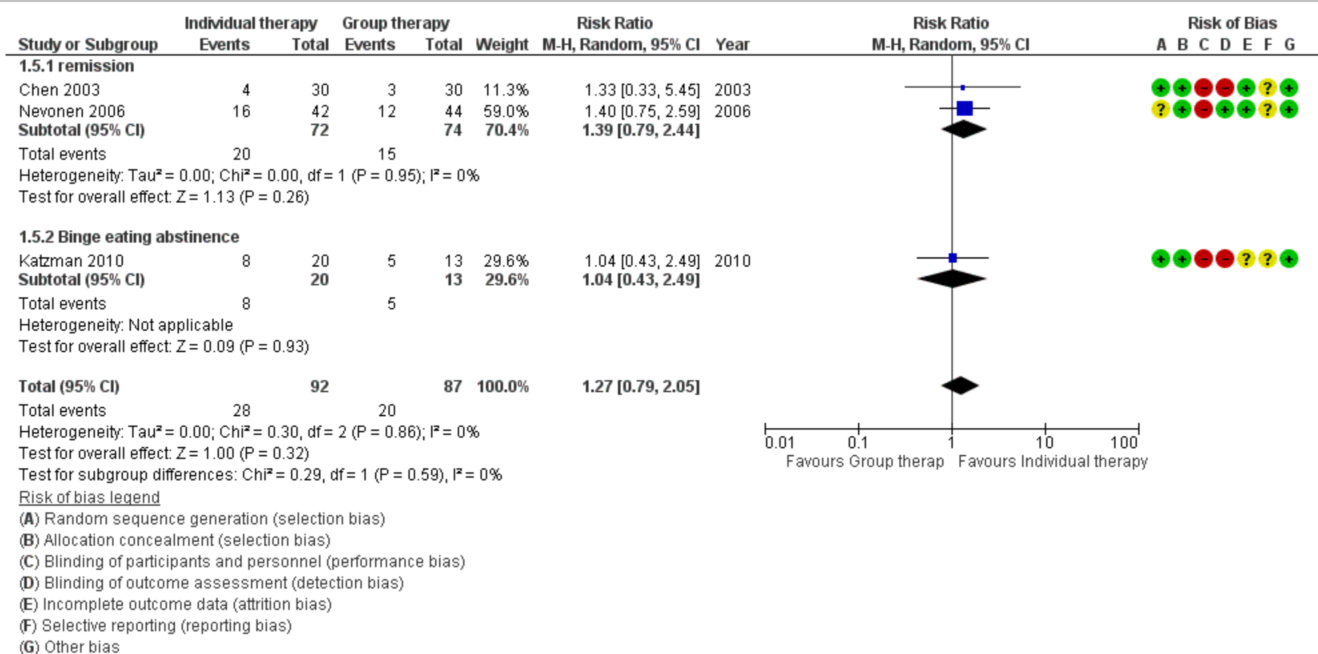


Study or Subgroup	Individual therapy Events	Individual therapy Total	Group therapy Events	Group therapy Total	Weight	Risk Ratio IV, Random, 95% CI	Year	Risk of Bias A B C D E F G
Katzman 2010	15	20	26	33	100.0%	0.95 [0.70, 1.30]	2010	+ + - - ? ? +
Total (95% CI)		**20**		**33**	**100.0%**	**0.95 [0.70, 1.30]**		
Total events	15		26					
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.31 (P = 0.75)								

Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (attrition bias)
(F) Selective reporting (reporting bias)
(G) Other bias

Forest plot of comparison: 1 Individual therapy vs Group therapy, outcome: 1.4 ED behaviour, Vomiting, end of treatment.

Figure 5 (Analysis 1.5)

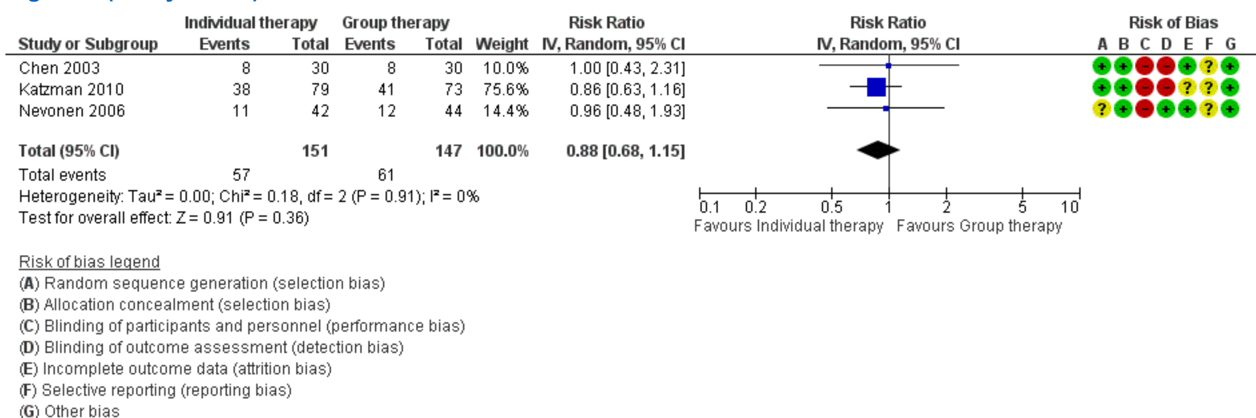


Study or Subgroup	Individual therapy Events	Individual therapy Total	Group therapy Events	Group therapy Total	Weight	Risk Ratio M-H, Random, 95% CI	Year	Risk of Bias A B C D E F G
1.5.1 remission								
Chen 2003	4	30	3	30	11.3%	1.33 [0.33, 5.45]	2003	+ + - - + ? +
Nevonen 2006	16	42	12	44	59.0%	1.40 [0.75, 2.59]	2006	? + - + + ? +
Subtotal (95% CI)		**72**		**74**	**70.4%**	**1.39 [0.79, 2.44]**		
Total events	20		15					
Heterogeneity: Tau² = 0.00; Chi² = 0.00, df = 1 (P = 0.95); I² = 0%								
Test for overall effect: Z = 1.13 (P = 0.26)								
1.5.2 Binge eating abstinence								
Katzman 2010	8	20	5	13	29.6%	1.04 [0.43, 2.49]	2010	+ + - - ? ? +
Subtotal (95% CI)		**20**		**13**	**29.6%**	**1.04 [0.43, 2.49]**		
Total events	8		5					
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.09 (P = 0.93)								
Total (95% CI)		**92**		**87**	**100.0%**	**1.27 [0.79, 2.05]**		
Total events	28		20					
Heterogeneity: Tau² = 0.00; Chi² = 0.30, df = 2 (P = 0.86); I² = 0%								
Test for overall effect: Z = 1.00 (P = 0.32)								
Test for subgroup differences: Chi² = 0.29, df = 1 (P = 0.59), I² = 0%								

Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (attrition bias)
(F) Selective reporting (reporting bias)
(G) Other bias

Forest plot of comparison: 1 Individual therapy vs Group therapy, outcome: 1.5 Remission of ED, longest FU.

Figure 6 (Analysis 1.6)

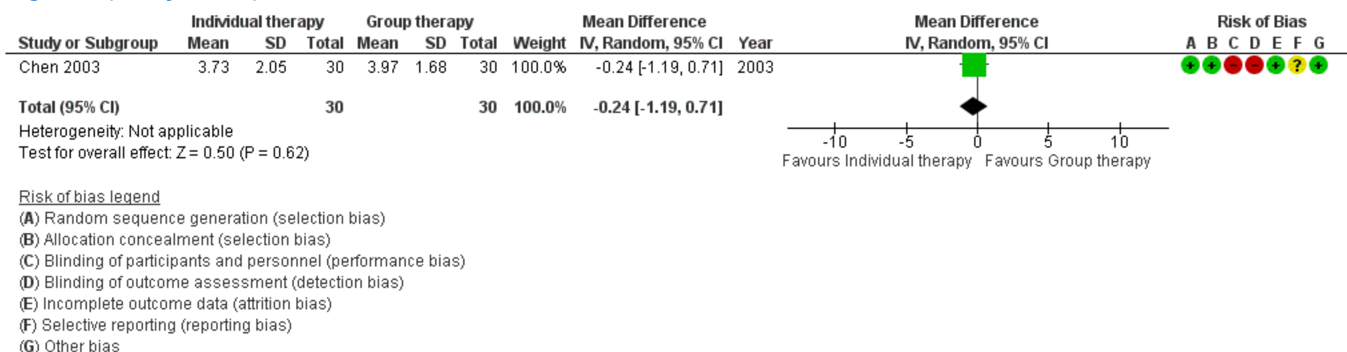


Study or Subgroup	Individual therapy Events	Individual therapy Total	Group therapy Events	Group therapy Total	Weight	Risk Ratio IV, Random, 95% CI	Risk of Bias A B C D E F G
Chen 2003	8	30	8	30	10.0%	1.00 [0.43, 2.31]	+ + - - + ? +
Katzman 2010	38	79	41	73	75.6%	0.86 [0.63, 1.16]	+ + - - ? ? +
Nevonen 2006	11	42	12	44	14.4%	0.96 [0.48, 1.93]	? + - + + ? +
Total (95% CI)		**151**		**147**	**100.0%**	**0.88 [0.68, 1.15]**	
Total events	57		61				
Heterogeneity: Tau² = 0.00; Chi² = 0.18, df = 2 (P = 0.91); I² = 0%							
Test for overall effect: Z = 0.91 (P = 0.36)							

Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (attrition bias)
(F) Selective reporting (reporting bias)
(G) Other bias

Forest plot of comparison: 1 Individual therapy vs Group therapy, outcome: 1.6 Dropout, end of treatment.

Figure 7 (Analysis 1.7)

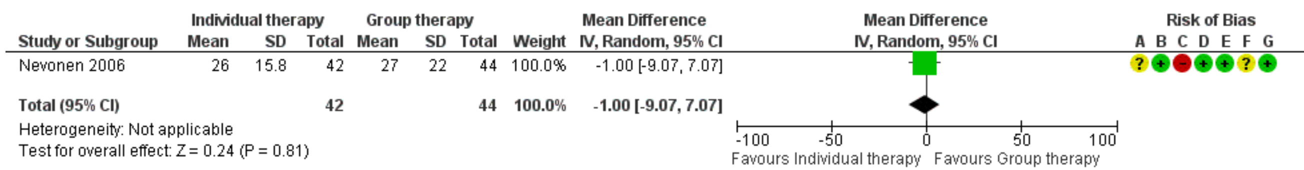


Study or Subgroup	Individual therapy Mean	Individual therapy SD	Individual therapy Total	Group therapy Mean	Group therapy SD	Group therapy Total	Weight	Mean Difference IV, Random, 95% CI	Year	Risk of Bias A B C D E F G
Chen 2003	3.73	2.05	30	3.97	1.68	30	100.0%	-0.24 [-1.19, 0.71]	2003	+ + - - + ? +
Total (95% CI)			**30**			**30**	**100.0%**	**-0.24 [-1.19, 0.71]**		
Heterogeneity: Not applicable										
Test for overall effect: Z = 0.50 (P = 0.62)										

Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (attrition bias)
(F) Selective reporting (reporting bias)
(G) Other bias

Forest plot of comparison: 1 Individual therapy vs Group therapy, outcome: 1.7 Psychological ED symptoms, EDE global, end of treatment.

Figure 8 (Analysis 1.8)



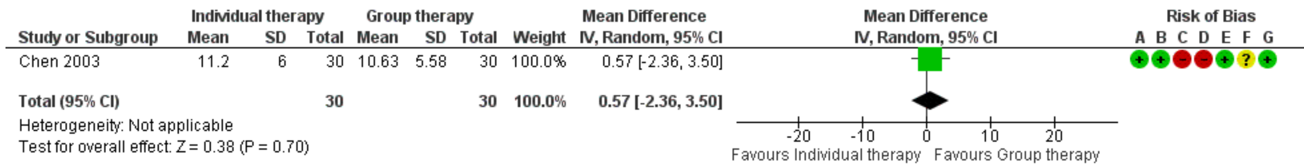
	Individual therapy			Group therapy				Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	A B C D E F G
Nevonen 2006	26	15.8	42	27	22	44	100.0%	-1.00 [-9.07, 7.07]		? + − + + ? +
Total (95% CI)			**42**			**44**	**100.0%**	**-1.00 [-9.07, 7.07]**		

Heterogeneity: Not applicable
Test for overall effect: Z = 0.24 (P = 0.81)

Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (attrition bias)
(F) Selective reporting (reporting bias)
(G) Other bias

Forest plot of comparison: 1 Individual therapy vs Group therapy, outcome: 1.8 Psychological ED symptoms, EDI subscales 1-3, end of treatment.

Figure 9 (Analysis 1.9)



	Individual therapy			Group therapy				Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	A B C D E F G
Chen 2003	11.2	6	30	10.63	5.58	30	100.0%	0.57 [-2.36, 3.50]		+ + − − + ? +
Total (95% CI)			**30**			**30**	**100.0%**	**0.57 [-2.36, 3.50]**		

Heterogeneity: Not applicable
Test for overall effect: Z = 0.38 (P = 0.70)

Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of participants and personnel (performance bias)
(D) Blinding of outcome assessment (detection bias)
(E) Incomplete outcome data (attrition bias)
(F) Selective reporting (reporting bias)
(G) Other bias

Forest plot of comparison: 1 Individual therapy vs Group therapy, outcome: 1.9 Psychological ED symptoms, EDI drive for thinness, end of treatment.