

Treatment outcomes for anorexia nervosa: a systematic review and meta-analysis of randomized-controlled trials – CORRIGENDUM

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Corrigendum

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In the original article, [Table 1](#) contained an incorrect value for Ball et al. (2004). This has been corrected below:

Table 1. A summary of eligible studies

	Population	Treatment	Comparator treatment	N treated in specialty treatment	N treated in comparator treatment
Attia et al. (1998)	Adolescents and adults aged 16–45	Fluoxetine	Placebo	15	16
Robin et al. (1999)	Adolescents and young adults aged 11–20 years	Behavioral family systems therapy	Ego-oriented individual therapy	19	18
Eisler et al. (2000)	Adolescents aged 12–18 years	Separated family therapy	Conjoint family therapy	21	19
Geist et al. (2000)	Adolescents aged 12–17 years	Family therapy	Family psychoeducation	12	13
Kaye et al. (2001) a	Adults aged 19+ years	Fluoxetine completers	Placebo	10	3
Kaye et al. (2001) b		Fluoxetine non-completers	Placebo	6	16
Fassino et al. (2002)	Adolescents and adults aged 16–35 years	Citalopram	Wait list control	26	26
Ball et al. (2004)	Adolescents and young adults aged 13–23 years	Cognitive behavioral therapy	Behavioral family therapy	13	12
McIntosh et al. (2005) a	Adolescents and adults aged 17–40 years	Cognitive behavioral therapy	Non-specific supportive clinical management	19	16
McIntosh et al. (2005) b		Interpersonal psychotherapy	Non-specific supportive clinical management	21	16
Mondraty et al. (2005)	Adults	Olanzapine	Chlorpromazine	8	7
Lock et al. (2005)	Adolescents aged 12–18 years	6-month family-based treatment	12-month family-based treatment	44	42
Walsh et al. (2006)	Adolescents and adults aged 16–45 years	Fluoxetine	Placebo	49	44
Brambilla et al. (2007)	Adult aged 19+	Olanzapine	Placebo	15	15
Gowers et al. (2007) a	Adolescents aged 12–18 years	Inpatient care	General outpatient care	57	55
Gowers et al. (2007) b		Specialist outpatient care	General outpatient care	55	55
Rigaud et al. (2007)	Adults	Cyclic enteral nutrition	Control re-feeding	41	40

(Continued)

Table 1. (Continued.)

	Population	Treatment	Comparator treatment	<i>N</i> treated in specialty treatment	<i>N</i> treated in comparator treatment
Court <i>et al.</i> (2010)	Adolescents and adults	Quetiapine	Treatment as usual	15	18
Lock <i>et al.</i> (2010)	Adolescents aged 12–18 years	Family-based treatment	Adolescent-focused therapy	61	60
Attia <i>et al.</i> (2011)	Adolescents and adults aged 16+ years	Olanzapine	Placebo	11	12
Hagman <i>et al.</i> (2011)	Adolescents and young adults aged 12–21	Risperidone	Placebo	18	22
Whitney <i>et al.</i> (2011)	Participant age not reported	Family day workshops	Family therapy	25	23
Schmidt <i>et al.</i> (2012)	Adolescents and adults aged 18+ years	Maudsley model of anorexia nervosa treatment for adults	Specialist supportive clinical management	34	37
Godart <i>et al.</i> (2012)	Adolescents and young adults aged 13–19	Family therapy	Treatment as usual	30	30
Powers <i>et al.</i> (2012)	Adults aged 19–65 years	Quetiapine	Placebo	6	9
Touyz <i>et al.</i> (2013)	Adults aged 19+ years	Cognitive behavioral therapy	Specialist supportive clinical management	31	32
Dalle-Grave <i>et al.</i> (2013)	Adolescents and adults aged 14–65 years	Cognitive behavioral therapy – broad	Cognitive behavioral therapy – focused	38	42
Zipfel <i>et al.</i> (2014) <i>a</i>	Adults aged 19+ years	Focal dynamic psychotherapy	Optimized treatment as usual	80	82
Zipfel <i>et al.</i> (2014) <i>b</i>		Cognitive behavioral therapy	Optimized treatment as usual	80	82
Smith <i>et al.</i> (2014)	Adolescents and adults aged 16+ years	Acupuncture	Acupressure	13	13
Herpetz-Dahlmann <i>et al.</i> (2014)	Adolescents aged 11–18 years	Day-patient treatment	Inpatient treatment	87	85
Agras <i>et al.</i> (2014)	Adolescents aged 12–18 years	Family-based treatment	Systemic family therapy	78	80
Schmidt <i>et al.</i> (2015)	Adolescents and adults aged 18+	Maudsley model of anorexia nervosa treatment for adults	Specialist supportive clinical management	72	70
Madden <i>et al.</i> (2015)	Adolescents aged 12–18 years	Inpatient medical stabilization	Inpatient weight restoration	41	41
Eisler <i>et al.</i> (2016)	Adolescents and young adults aged 13–20 years	Multi-family therapy	Family-based treatment	86	83
Le Grange <i>et al.</i> (2016)	Adolescents aged 12–18 years	Parent-focused therapy	Family-based treatment	52	55
Parling <i>et al.</i> (2016)	Adults aged 18–51	Acceptance and commitment therapy	Treatment as usual	24	19
Herscovici <i>et al.</i> (2017)	Adolescents and young adults aged 12–20 years	Family therapy with meal session	Family therapy with no meal session	11	12
Russell <i>et al.</i> (2018)	Adolescents and adults aged 16–60 years	Intranasal oxytocin	Placebo	20	21

References

- Agras WS, Lock J, Brandt H, Bryson SW, Dodge E, Halmi KA, Jo B, Johnson C, Kaye W, Wilfley D and Woodside B (2014) Comparison of 2 family therapies for adolescent anorexia nervosa: a randomized parallel trial. *JAMA Psychiatry* 71, 1279–1286.
- Attia E, Haiman C, Walsh BT and Flater SR (1998) Does fluoxetine augment the inpatient treatment of anorexia nervosa? *American Journal of Psychiatry* 155, 548–551.
- Attia E, Kaplan AS, Walsh BT, Gershkovich M, Yilmaz Z, Musante D and Wang Y (2011) Olanzapine versus placebo for out-patients with anorexia nervosa. *Psychological Medicine* 41, 2177–2182.
- Ball J and Mitchell P (2004) A randomized controlled study of cognitive behavior therapy and behavioral family therapy for anorexia nervosa patients. *Eating Disorders* 12, 303–314.
- Brambilla F, Garcia CS, Fassino S, Daga GA, Favaro A, Santonastaso P, Ramaciotti C, Bondi E, Mellado C, Borriello R and Montelone P (2007) Olanzapine therapy in anorexia nervosa: psychobiological effects. *International Clinical Psychopharmacology* 22, 197–204.
- Court A, Mulder C, Kerr M, Yuen HP, Boasman M, Goldstone S, Fleming J, Weigall S, Derham H, Huang C, McGory P and Berger G (2010) Investigating the effectiveness, safety and tolerability of quetiapine in the treatment of anorexia nervosa in young people: a pilot study. *Journal of Psychiatric Research* 44, 1027–1034.
- Dalle-Grave R, Calugi S, Conti M, Doll H and Fairburn CG (2013) Inpatient cognitive behavior therapy for anorexia nervosa: a randomized controlled trial. *Psychotherapy and Psychosomatics* 82, 390–398.
- Eisler I, Dare C, Hodes M and Russell G (2000) Family therapy for adolescent anorexia nervosa: the results of a controlled comparison of two family interventions. *Journal of Child Psychology & Psychiatry* 41, 727–736.
- Eisler I, Simic M, Hodsol J, Asen E, Berelowitz M, Connan F, Ellis G, Hugo P, Schmidt U, Treasure J, Yi I and Landau S (2016) A pragmatic randomized multi-centre trial of multifamily and single family therapy for adolescent anorexia nervosa. *BMC Psychiatry* 16, 422.
- Fassino S, Leombruni P, Abbate-Daga G, Brustolin A, Migliaretti G, Cavallo F and Rovera GG (2002) Efficacy of citalopram in anorexia nervosa: a pilot study. *European Neuropsychopharmacology* 12, 453–459.
- Geist R, Heinmaa M, Stephens D, Davis R and Katzman DK (2000) Comparison of family therapy and family group psychoeducation in adolescents with anorexia nervosa. *Canadian Journal of Psychiatry* 45, 173–178.
- Godart N, Berthoz S, Curt F, Perdereau F, Rein Z, Wallier J, Horreard AS, Kaganski I, Lucet R, Atger F, Corcos M, Fermanian J, Falissard B, Flament M, Eisler I and Jeameant P (2012) A randomized controlled trial of adjunctive family therapy and treatment as usual following inpatient treatment for anorexia nervosa adolescents. *PLoS ONE* 7, e28249.
- Gowers SG, Clark A, Roberts C, Griffiths A, Edwards S, Bryan C, Smethurst N, Byford S and Barrett B (2007) Clinical effectiveness of treatments for anorexia nervosa in adolescents. *British Journal of Psychiatry* 191, 427–435.
- Hagman J, Gralla J, Sigel E, Ellert S, Dodge M, Gardner R, O'Lonegan T, Frank G and Wamboldt MZ (2011) A double-blind placebo controlled study of risperidone for the treatment of adolescents and young adults with anorexia nervosa: a pilot study. *Journal of the American Academy of Child & Adolescent Psychiatry* 50, 915–924.
- Herpertz-Dahlmann B, Schwarte R, Krei M, Egberts K, Warnke A, Wewetzer C, Preiffer E, Fleischhaker C, Scherag A, Holtkamp K, Hagenah U, Bühren K, Klonrad K, Schmidt U, Schade-Brittinger C, Timmesfeld N and Dempfle A (2014) Day-patient treatment after short inpatient care versus continued inpatient treatment in adolescents with anorexia nervosa (ANDI): a multicentre, randomized, open-label non-inferiority trial. *The Lancet* 383, 5–11.
- Herscovici CR, Kovalskys I and Orellana L (2017) An exploratory evaluation of the family meal intervention for adolescent anorexia nervosa. *Family Process* 56, 364–375.
- Kaye WH, Nagata T, Weltzin TE, Hsu LKG, Sokol MS, McConaha C, Plotnicov KH, Weise J and Deep D (2001) Double-blind placebo-controlled administration of fluoxetine in restricting- and restricting-purging-type anorexia nervosa. *Biological Psychiatry* 49, 644–652.
- Le Grange D, Hughes EK, Court A, Yeo M, Crosby RD and Sawyer SM (2016) Randomized clinical trial of parent-focused treatment and family-based treatment for adolescent anorexia nervosa. *Journal of the American Academy of Child & Adolescent Psychiatry* 55, 683–692.
- Lock J, Agras WS, Bryson S and Kraemer HC (2005) A comparison of short- and long-term family therapy for adolescent anorexia nervosa. *Journal of the American Academy of Child & Adolescent Psychiatry* 44, 632–639.
- Lock J, Le Grange D, Agras WS, Moye A, Bryson SW and Jo B (2010) Randomized clinical trial comparing family-based treatment with adolescent-focused individual therapy for adolescents with anorexia nervosa. *Archives of General Psychiatry* 67, 1025–1032.
- Madden S, Miscovic-Wheatley J, Wallis A, Kohn M, Lock J, Le Grange D, Jo B, Clarke S, Rhodes P, Hay P and Touyz SW (2015) A randomized controlled trial of in-patient treatment for anorexia nervosa in medically unstable adolescents. *Psychological Medicine* 45, 415–427.
- McIntosh VVW, Jordan J, Carter FA, Luty SE, McKenzie JM, Bulik CM, Frampton CMA and Joyce PR (2005) Three psychotherapies for anorexia nervosa: a randomized, controlled trial. *American Journal of Psychiatry* 162, 741–747.
- Mondraty N, Birmingham CL, Touyz SW, Sunkadov V, Chapman L and Beumont P (2005) Randomized controlled trial of olanzapine in the treatment of cognitions in anorexia nervosa. *Australasian Psychiatry* 13, 72–75.
- Murray S, Quintana D, Loeb K, Griffiths S and Le Grange D (n.d.) Treatment outcomes for anorexia nervosa: A systematic review and meta-analysis of randomized controlled trials. *Psychological Medicine*, 1–10. doi: 10.1017/S0033291718002088.
- Parling T, Cernvall M, Ramklint M, Holmgren S and Ghaderi A (2016) A randomised trial of acceptance and commitment therapy for anorexia nervosa after daycare treatment, including five-year follow-up. *BMC Psychiatry* 272.
- Powers PS, Klabunde M and Kaye WH (2012) Double-blind placebo-controlled trial of quetiapine in anorexia nervosa. *European Eating Disorders Review* 20, 331–334.
- Rigaud D, Brondel L, Poupard AT, Talonneau I and Brun JM (2007) A randomized trial on the efficacy of a 2-month tube feeding regimen in anorexia nervosa: a 1-year follow-up study. *Clinical Nutrition* 26, 421–429.
- Robin AL, Siegel PT, Moye AW, Gilroy M, Dennis AB and Sikand A (1999) A controlled comparison of family versus individual therapy for adolescents with anorexia nervosa. *Journal of the American Academy of Child & Adolescent Psychiatry* 38, 1482–1489.
- Russell J, Maguire S, Hunt GE, Kesby A, Suraev A, Stuart J, Booth J and McGregor IS (2018) Intranasal oxytocin in the treatment of anorexia nervosa: randomized controlled trial during re-feeding. *Psychoneuroendocrinology* 87, 83–92.
- Schmidt U, Oldershaw A, Jicji F, Sternheim L, Startup H, McIntosh V, Jordan J, Tchanturia K, Wolff G, Rooney M, Landau S and Treasure J (2012) Out-patient psychological therapies for adults with anorexia nervosa: randomized controlled trial. *British Journal of Psychiatry* 201, 392–399.
- Schmidt U, Magill N, Renwick B, Keyes A, Kenyon M, Dejong H, Lose A, Broadbent H, Loomes R, Yasin H, Watson C, Ghelani S, Bonin EM, Serpell L, Richards L, Johnson-Sabine E, Boughton N, Whitehead L, Beecham J, Treasure J and Landau S (2015) The Maudsley outpatient study of treatments for anorexia nervosa and related conditions (MOSAIC): comparison of the Maudsley model of anorexia nervosa treatment for adults (MANTRA) with specialist supportive clinical management (SSCM) in outpatients with broadly defined anorexia nervosa: a randomized controlled trial. *Journal of Consulting and Clinical Psychology* 83, 796–807.
- Smith C, Fogarty S, Touyz SW, Madden S, Buckett G and Hay P (2014) Acupuncture and acupressure and massage health outcomes for patients with anorexia nervosa: findings from a pilot randomized controlled trial and patient interviews. *Journal of Alternative and Complementary Medicine* 20, 103–112.
- Touyz SW, Le Grange D, Lacey H, Hay P, Smoth R, Maguire S, Bamford B, Pike KM and Crosby RD (2013) Treating severe and enduring anorexia nervosa: a randomized controlled trial. *Psychological Medicine* 43, 2501–2511.
- Walsh BT, Kaplan AS, Attia E, Olmsted M, Parides M, Carter JC, Pike KM, Devlin MJ, Woodside B, Roberto CA and Rockert W (2006) Fluoxetine

- after weight restoration in anorexia nervosa: a randomized controlled trial. *JAMA* **295**, 2605–2612.
- Whitney J, Murphy T, Landau S, Gavan K, Todd G, Whitaker W and Treasure J** (2011) A practical comparison of two types of family intervention: an exploratory RCT of family day workshops and individual family work as a supplement to inpatient care for adults with anorexia nervosa. *European Eating Disorders Review* **20**, 142–150.
- Zipfel S, Wild B, Grob B, Friederich HC, Teufel M, Schellberg D, Giel KE, de Zwaan M, Dinkel A, Herpertz S, Burgmer M, Löwe B, Tagay S, von Wietersheim J, Zeeck A, Schade-Brittinger C, Schauenburg H and Herzog W** (2014) Focal dynamic psychotherapy, cognitive behavior therapy, and optimized treatment as usual in outpatients with anorexia nervosa (ANTOP study): randomized controlled trial. *The Lancet* **383**, 127–137.