Supplementary material

Contents

SUPPLEMENTAL TABLES

Table 1. Included studies reference list

Study ID	Primary reference
Abed 2013	Abed HS, Wittert GA, Leong DP, et al. Effect of weight reduction and cardiometabolic risk factor management on symptom burden and severity in patients with atrial fibrillation: a randomized clinical trial. *JAMA* 2013; **310**(19): 2050-60.
Ackermann 2011	Ackermann RT, Finch EA, Caffrey HM, Lipscomb ER, Hays LM, Saha C. Long-term effects of a community-based lifestyle intervention to prevent type 2 diabetes: the DEPLOY extension pilot study. *Chronic Illn* 2011; **7**(4): 279-90.
Agras 1990	Agras WS, Taylor CB, Feldman DE, Losch M, Burnett KF. Developing computer-assisted therapy for the treatment of obesity. *Behavior Therapy* 1990; **21**(1): 99-109
Ahern 2017	Ahern AL, Wheeler GM, Aveyard P, et al. Extended and standard duration weight-loss programme referrals for adults in primary care (WRAP): a randomised controlled trial. *Lancet* 2017; **389**(10085): 2214-25
Almanza -Aguilera 2018	Almanza-Aguilera E, Brunius C, Bernal-Lopez MR, et al. Impact in Plasma Metabolome as Effect of Lifestyle Intervention for Weight-Loss Reveals Metabolic Benefits in Metabolically Healthy Obese Women. *J Proteome Res* 2018; **17**(8): 2600-10.
Ames 2005	Ames GE, Perri MG, Fox LD, et al. Changing weight-loss expectations: a randomized pilot study. *Eat behav* 2005; **6**(3): 259-69.
Andersen 1999	Andersen RE, Wadden TA, Bartlett SJ, Zemel B, Verde TJ, Franckowiak SC. Effects of lifestyle activity vs structured aerobic exercise in obese women: a randomized trial. *JAMA* 1999; **281**(4): 335-40.
Anderson 2014	Anderson AS, Craigie AM, Caswell S, et al. The impact of a bodyweight and physical activity intervention (BeWEL) initiated through a national colorectal cancer screening programme: randomised controlled trial. *BMJ* 2014; **348**: g1823.
Annesi 2016	Annesi JJ, Johnson PH, Tennant GA, Porter KJ, McEwen KL. Weight Loss and the Prevention of Weight Regain: Evaluation of a Treatment Model of Exercise Self-Regulation Generalizing to Controlled Eating. *Perm J* 2016; **20**(3): 15-146.
Annesi 2017	Annesi JJ. Mediation of the relationship of behavioural treatment type and changes in psychological predictors of healthy eating by body satisfaction changes in women with obesity. *Obes Res Clin Pract* 2017; **11**(1): 97-107.
Appel 2011	Appel LJ, Clark JM, Yeh HC, et al. Comparative effectiveness of weight-loss interventions in clinical practice. *N Engl J Med* 2011; **365**(21): 1959-68.
Ard 2004	Ard JD, Grambow SC, Liu D, Slentz CA, Kraus WE, Svetkey LP. The effect of the PREMIER interventions on insulin sensitivity. *Diabetes Care* 2004; **27**(2): 340-7.
Ard 2018	Ard JD, Gower B, Hunter G, et al. Effects of Calorie Restriction in Obese Older Adults: The CROSSROADS Randomized Controlled Trial. *J Gerontol A Biol Sci Med Sci* 2017; **73**(1): 73-80
Ash 2006	Ash S, Reeves M, Bauer J, et al. A randomised control trial comparing lifestyle groups, individual counselling and written information in the management of weight and health outcomes over 12 months. *Int J Obes (Lond)* 2006; **30**(10): 1557-64.
Ashley 2001	Ashley JM, St Jeor ST, Perumean-Chaney S, Schrage J, Bovee V. Meal replacements in weight intervention. *Obes Res* 2001; **9 Suppl 4**: 312s-20s.
Ashley 2007	Ashley JM, Herzog H, Clodfelter S, Bovee V, Schrage J, Pritsos C. Nutrient adequacy during weight loss interventions: a randomized study in women comparing the dietary intake in a meal replacement group with a traditional food group. *Nutr J*. 2007; **6**: 12.
Aveyard 2016	Aveyard P, Lewis A, Tearne S, et al. Screening and brief intervention for obesity in primary care: a parallel, two-arm, randomised trial. *Lancet* 2016; **388**(10059): 2492-500.

Study ID	Primary reference
Azar 2013	Azar KM, Xiao L, Ma J. Baseline obesity status modifies effectiveness of adapted diabetes prevention program lifestyle interventions for weight management in primary care. *Biomed Res Int* 2013; **2013**: 191209.
Bacon 2002	Bacon L, Keim NL, Van Loan MD, et al. Evaluating a 'non-diet' wellness intervention for improvement of metabolic fitness, psychological well-being and eating and activity behaviors. *Int J Obes Relat Metab Disord* 2002; **26**(6): 854-65.
Barnes 2017	arnes RD, Ivezaj V, Martino S, Pittman BP, Grilo CM. Back to Basics? No Weight Loss from Motivational Interviewing Compared to Nutrition Psychoeducation at One-Year Follow-Up. *Obesity (Silver Spring)* 2017; **25**(12): 2074-8.
Bartels 2015	Bartels SJ, Pratt SI, Aschbrenner KA, et al. Pragmatic replication trial of health promotion coaching for obesity in serious mental illness and maintenance of outcomes. *Am J Psychiatry* 2015; **172**(4): 344-52.
Beavers 2017	Beavers KM, Ambrosius WT, Rejeski WJ, et al. Effect of Exercise Type During Intentional Weight Loss on Body Composition in Older Adults with Obesity. *Obesity (Silver Spring)* 2017; **25**(11): 1823-9.
Beeken 2017	Beeken RJ, Leurent B, Vickerstaff V, et al. A brief intervention for weight control based on habit-formation theory delivered through primary care: results from a randomised controlled trial. *Int J Obes (Lond)* 2017; **41**(2): 246-54.
Bennett 1986	Bennett GA. An evaluation of self-instructional training in the treatment of obesity. *Addict Behav* 1986; **11**(2): 125-34.
Bennett 2012	Bennett GG, Warner ET, Glasgow RE, et al. Obesity treatment for socioeconomically disadvantaged patients in primary care practice. *Arch Intern Med* 2012; **172**(7): 565-74.
Bennett 2013	Bennett GG, Foley P, Levine E, et al. Behavioral treatment for weight gain prevention among black women in primary care practice: a randomized clinical trial. *JAMA Intern Med* 2013; **173**(19): 1770-7.
Berendsen 2011	Berendsen BA, Hendriks MR, Verhagen EA, Schaper NC, Kremers SP, Savelberg HH. Effectiveness and cost-effectiveness of 'BeweegKuur', a combined lifestyle intervention in the Netherlands: rationale, design and methods of a randomized controlled trial. *BMC Public Health* 2011; **11**: 815.
Berry 2014	Berry DC, Schwartz TA, McMurray RG, et al. The family partners for health study: a cluster randomized controlled trial for child and parent weight management. *Nutr Diabetes* 2014; **4**(1): e101.
Bertram 1990	Bertram SR, Venter I, Stewart RI. Weight loss in obese women--exercise v. dietary education. *S Afr Med J* 1990; **78**(1): 15-8.
Bertz 2012	Bertz F, Brekke HK, Ellegård L, Rasmussen KM, Wennergren M, Winkvist A. Diet and exercise weight-loss trial in lactating overweight and obese women. *Am J Clin Nutr 2012;* **96**(4): 698-705.
Beutel 2006	Beutel ME, Dippel A, Szczepanski M, Thiede R, Wiltink J. Mid-term effectiveness of behavioral and psychodynamic inpatient treatments of severe obesity based on a randomized study. *Psychother Psychosom* 2006; **75**(6): 337-45.
Bliddal 2011	Bliddal H, Leeds AR, Stigsgaard L, Astrup A, Christensen R. Weight loss as treatment for knee osteoarthritis symptoms in obese patients: 1-year results from a randomised controlled trial. *Ann Rheum Dis* 2011; **70**(10): 1798-803.
Bo 2007	Bo S, Ciccone G, Baldi C, et al. Effectiveness of a lifestyle intervention on metabolic syndrome. A randomized controlled trial. *J Gen Intern Med* 2007; **22**(12): 1695-703.
Brown 2014	Brown C, Goetz J, Hamera E, Gajewski B. Treatment response to the RENEW weight loss intervention in schizophrenia: impact of intervention setting. *Schizophr Res* 2014; **159**(2-3): 421-5.
Burke 2005	Burke V, Beilin LJ, Cutt HE, Mansour J, Wilson A, Mori TA. Effects of a lifestyle programme on ambulatory blood pressure and drug dosage in treated hypertensive patients: a randomized controlled trial. *J Hypertens* 2005; **23**(6): 1241-9.
Burke 2015	Burke LE, Ewing LJ, Ye L, et al. The SELF trial: A self-efficacy-based behavioral intervention trial for weight loss maintenance. *Obesity (Silver Spring)* 2015; **23**(11): 2175-82.
Cesa 2013	Cesa GL, Manzoni GM, Bacchetta M, et al. Virtual reality for enhancing the cognitive behavioral treatment of obesity with binge eating disorder: randomized controlled study with one-year follow-up. *J Med Internet Res* 2013; **15**(6): e113.

Study ID	Primary reference
Chaiyasoot 2018	Chaiyasoot K, Sarasak R, Pheungruang B, et al. Evaluation of a 12-week lifestyle education intervention with or without partial meal replacement in Thai adults with obesity and metabolic syndrome: a randomised trial. *Nutr Diabetes* 2018; **8**(1): 23.
Chee 2017	Chee WSS, Gilcharan Singh HK, Hamdy O, et al. Structured lifestyle intervention based on a trans-cultural diabetes-specific nutrition algorithm (tDNA) in individuals with type 2 diabetes: a randomized controlled trial. *BMJ Open Diabetes Res Care* 2017; **5**(1): e000384.
Cheskin 2008	Cheskin LJ, Mitchell AM, Jhaveri AD, et al. Efficacy of meal replacements versus a standard food-based diet for weight loss in type 2 diabetes: a controlled clinical trial. *Diabetes Educ* 2008; **34**(1): 118-27.
Cheyette 2007	Cheyette C. Weight No More: a randomised controlled trial for people with type 2 diabetes on insulin therapy. *Pract Diab Int* 2007; **24**(9): 450-6.
Christensen 2012	Christensen JR, Overgaard K, Carneiro IG, Holtermann A, Søgaard K. Weight loss among female health care workers--a 1-year workplace based randomized controlled trial in the FINALE-health study. *BMC Public Health* 2012; **12**: 625.
Cleo 2018	Cleo G, Glasziou P, Beller E, Isenring E, Thomas R. Habit-based interventions for weight loss maintenance in adults with overweight and obesity: a randomized controlled trial. *Int J Obes (Lond)* 2019; **43**(2): 374-83.
Cole 2013	Cole RE, Boyer KM, Spanbauer SM, Sprague D, Bingham M. Effectiveness of prediabetes nutrition shared medical appointments: prevention of diabetes. *Diabetes Educ* 2013; **39**(3): 344-53.
Conroy 2015	Conroy MB, Sward KL, Spadaro KC, et al. Effectiveness of a physical activity and weight loss intervention for middle-aged women: healthy bodies, healthy hearts randomized trial. *J Gen Intern Med* 2015; **30**(2): 207-13.
Cooper 2010	Cooper Z, Doll HA, Hawker DM, et al. Testing a new cognitive behavioural treatment for obesity: A randomized controlled trial with three-year follow-up. *Behav Res Ther* 2010; **48**(8): 706-13.
Cousins 1992	Cousins JH, Rubovits DS, Dunn JK, Reeves RS, Ramirez AG, Foreyt JP. Family versus individually oriented intervention for weight loss in Mexican American women. *Public Health Rep* 1992; **107**(5): 549-55.
Craighead 1989	Craighead LW, Blum MD. Supervised exercise in behavioral treatment for moderate obesity. *Behavior Therapy* 1989; **20**(1): 49-59.
Crowley 2017	Crowley MJ, Edelman D, Voils CI, et al. Jump starting shared medical appointments for diabetes with weight management: Rationale and design of a randomized controlled trial. *Contemp Clin Trials* 2017; **58**: 1-12.
Dale 2009	Dale KS, Mann JI, McAuley KA, Williams SM, Farmer VL. Sustainability of lifestyle changes following an intensive lifestyle intervention in insulin resistant adults: Follow-up at 2-years. *Asia Pac J Clin Nutr* 2009; **18**(1): 114-20.
Dalziel 2006	Dalziel K, Segal L, de Lorgeril M. A mediterranean diet is cost-effective in patients with previous myocardial infarction. *J Nutr* 2006; **136**(7): 1879-85.
Damschroder 2014	Damschroder LJ, Lutes LD, Kirsh S, et al. Small-changes obesity treatment among veterans: 12-month outcomes. *Am J Prev Med* 2014; **47**(5): 541-53.
Daubenmier 2016	Daubenmier J, Moran PJ, Kristeller J, et al. Effects of a mindfulness-based weight loss intervention in adults with obesity: A randomized clinical trial. *Obesity (Silver Spring)* 2016; **24**(4): 794-804.
Daumit 2013	Daumit GL, Dickerson FB, Wang NY, et al. A behavioral weight-loss intervention in persons with serious mental illness. *N Engl J Med* 2013; **368**(17): 1594-602.
de Zwaan 2017	de Zwaan M, Herpertz S, Zipfel S, et al. Effect of Internet-Based Guided Self-help vs Individual Face-to-Face Treatment on Full or Subsyndromal Binge Eating Disorder in Overweight or Obese Patients: The INTERBED Randomized Clinical Trial. JAMA psychiatry 2017; 74(10): 987-95.
Delahanty 2015	Delahanty LM, Dalton KM, Porneala B, et al. Improving diabetes outcomes through lifestyle change--A randomized controlled trial. *Obesity (Silver Spring)* 2015; **23**(9): 1792-9.

Study ID	Primary reference
deRoon 2017	de Roon M, van Gemert WA, Peeters PH, Schuit AJ, Monninkhof EM. Long-term effects of a weight loss intervention with or without exercise component in postmenopausal women: A randomized trial. *Prev Med Rep* 2017; **5**: 118-23.
deVos 2016	de Vos BC, Runhaar J, van Middelkoop M, Krul M, Bierma-Zeinstra SM. Long-term effects of a randomized, controlled, tailor-made weight-loss intervention in primary care on the health and lifestyle of overweight and obese women. *Am J Clin Nutr* 2016; **104**(1): 33-40.
DeZwaan 2005	de Zwaan M, Mitchell JE, Crosby RD, et al. Short-term cognitive behavioral treatment does not improve outcome of a comprehensive very-low-calorie diet program in obese women with binge eating disorder. *Behavior Therapy* 2005; **36**(1): 89-99.
Diabetes Prevention Program R G 2009	Knowler WC, Fowler SE, Hamman RF, et al. 10-year follow-up of diabetes incidence and weight loss in the Diabetes Prevention Program Outcomes Study. *Lancet* 2009; **374**(9702): 1677-86.
Djuric 2002	Djuric Z, DiLaura NM, Jenkins I, et al. Combining weight-loss counseling with the weight watchers plan for obese breast cancer survivors. *Obes Res* 2002; **10**(7): 657-65.
Donnelly 2013	Donnelly JE, Saunders RR, Saunders M, et al. Weight management for individuals with intellectual and developmental disabilities: rationale and design for an 18 month randomized trial. *Contemp Clin Trials* 2013; **36**(1): 116-24.
Duncan 2016	Duncan S, Goodyear-Smith F, McPhee J, Zinn C, Grøntved A, Schofield G. Family-centered brief intervention for reducing obesity and cardiovascular disease risk: A randomized controlled trial. *Obesity (Silver Spring)* 2016; **24**(11): 2311-8.
Eakin 2014	Eakin EG, Winkler EA, Dunstan DW, et al. Living well with diabetes: 24-month outcomes from a randomized trial of telephone-delivered weight loss and physical activity intervention to improve glycemic control. *Diabetes care* 2014; **37**(8): 2177-85.
Eaton 2016	Eaton CB, Hartman SJ, Perzanowski E, et al. A Randomized Clinical Trial of a Tailored Lifestyle Intervention for Obese, Sedentary, Primary Care Patients. *Ann Fam Med* 2016; **14**(4): 311-9.
Fahey 2018	Fahey MC, Hare ME, Talcott GW, et al. Characteristics Associated With Participation in a Behavioral Weight Loss Randomized Control Trial in the U.S. Military. *Mil Med* 2019; **184**(3-4): e120-e6.
Fernandez-Ruiz 2018	Fernández-Ruiz VE, Armero-Barranco D, Paniagua-Urbano JA, Sole-Agusti M, Ruiz-Sánchez A, Gómez-Marín J. Short-medium-long-term efficacy of interdisciplinary intervention against overweight and obesity: Randomized controlled clinical trial. *Int J Nurs Prac* 2018; **24**(6): e12690.
Finkelstein 2017	Finkelstein EA, Tham KW, Haaland BA, Sahasranaman A. Applying economic incentives to increase effectiveness of an outpatient weight loss program (TRIO) - A randomized controlled trial. *Soc Sci Med (1982)* 2017; **185**: 63-70.
Fisher 2011	Fisher G, Hyatt TC, Hunter GR, Oster RA, Desmond RA, Gower BA. Effect of diet with and without exercise training on markers of inflammation and fat distribution in overweight women. *Obesity (Silver Spring)* 2011; **19**(6): 1131-6.
Foley 2016	Foley P, Steinberg D, Levine E, et al. Track: A randomized controlled trial of a digital health obesity treatment intervention for medically vulnerable primary care patients. *Contemp Clin Trials* 2016; **48**: 12-20.
Foreyt 1993	Foreyt JP, Goodrick GK, Reeves RS, et al. Response of free-living adults to behavioral treatment of obesity: Attrition and compliance to exercise. *Behavior Therapy* 1993; **24**(4): 659-69.
Forman 2013	Forman EM, Butryn ML, Juarascio AS, et al. The mind your health project: a randomized controlled trial of an innovative behavioral treatment for obesity. *Obesity (Silver Spring)* 2013; **21**(6): 1119-26.
Forman 2016	Forman EM, Butryn ML, Manasse SM, et al. Acceptance-based versus standard behavioral treatment for obesity: Results from the mind your health randomized controlled trial. *Obesity (Silver Spring)* 2016; **24**(10): 2050-6.
Foster-Schubert 2012	Foster-Schubert KE, Alfano CM, Duggan CR, et al. Effect of diet and exercise, alone or combined, on weight and body composition in overweight-to-obese postmenopausal women. *Obesity (Silver Spring)* 2012; **20**(8): 1628-38.
Freitas 2017	Freitas PD, Ferreira PG, Silva AG, et al. The Role of Exercise in a Weight-Loss Program on Clinical Control in Obese Adults with Asthma. A Randomized Controlled Trial. *Am J Respir Crit Care Med* 2017; **195**(1): 32-42.

Study ID	Primary reference
Fuller 2012	Fuller NR, Lau NS, Denyer G, Caterson ID. A 12-month, randomised, controlled trial to examine the efficacy of the Korean diet in an Australian overweight and obese population - A follow up analysis. *Obes Res Clin Pract* 2012; **6**(4): e263-346.
Gold 2007	Gold BC, Burke S, Pintauro S, Buzzell P, Harvey-Berino J. Weight loss on the web: A pilot study comparing a structured behavioral intervention to a commercial program. *Obesity (Silver Spring)* 2007; **15**(1): 155-64.
Goodwin 2014	Goodwin PJ, Segal RJ, Vallis M, et al. Randomized trial of a telephone-based weight loss intervention in postmenopausal women with breast cancer receiving letrozole: the LISA trial. *J Clin Oncol* 2014; **32**(21): 2231-9.
Gorin 2013	Gorin AA, Raynor HA, Fava J, et al. Randomized controlled trial of a comprehensive home environment-focused weight-loss program for adults. *Health Psychol* 2013; **32**(2): 128-37.
Green 2015	Green CA, Yarborough BJ, Leo MC, et al. Weight maintenance following the STRIDE lifestyle intervention for individuals taking antipsychotic medications. *Obesity (Silver Spring)* 2015; **23**(10): 1995-2001.
Grilo 2011	Grilo CM, Masheb RM, Wilson GT, Gueorguieva R, White MA. Cognitive-behavioral therapy, behavioral weight loss, and sequential treatment for obese patients with binge-eating disorder: a randomized controlled trial. *J Consult Clin Psychol* 2011; **79**(5): 675-85.
Grilo 2014	Grilo CM, Masheb RM, White MA, et al. Treatment of binge eating disorder in racially and ethnically diverse obese patients in primary care: randomized placebo-controlled clinical trial of self-help and medication. *Behav Res Ther* 2014; **58**: 1-9.
Hageman 2017	Hageman PA, Pullen CH, Hertzog M, Pozehl B, Eisenhauer C, Boeckner LS. Web-Based Interventions Alone or Supplemented with Peer-Led Support or Professional Email Counseling for Weight Loss and Weight Maintenance in Women from Rural Communities: Results of a Clinical Trial. *J Obes* 2017; **2017**: 1602627.
Hakala 1993	Hakala P, Karvetti RL, Rönnemaa T. Group vs. individual weight reduction programmes in the treatment of severe obesity--a five year follow-up study. *Int J Obes Relat Metab Disord* 1993; **17**(2): 97-102.
Hanson 1976	Hanson RW, Borden BL, Hall SM, Hall RG. Use of programmed instruction in teaching self-management skills to overweight adults. *Behavior Therapy* 1976; **7**(3): 366-73.
Hardcastle 2013	Hardcastle SJ, Taylor AH, Bailey MP, Harley RA, Hagger MS. Effectiveness of a motivational interviewing intervention on weight loss, physical activity and cardiovascular disease risk factors: a randomised controlled trial with a 12-month post-intervention follow-up. *Int J Behav Nutr Phys Act* 2013; **10**: 40.
Harrigan 2016	Harrigan M, Cartmel B, Loftfield E, et al. Randomized Trial Comparing Telephone Versus In-Person Weight Loss Counseling on Body Composition and Circulating Biomarkers in Women Treated for Breast Cancer: The Lifestyle, Exercise, and Nutrition (LEAN) Study. *J Clin Oncol* 2016; **34**(7): 669-76.
Harris 2017	Harris L, Hankey C, Jones N, et al. A cluster randomised control trial of a multi-component weight management programme for adults with intellectual disabilities and obesity. *Br J Nutr* 2017; **118**(3): 229-40.
Hunt 2014	Hunt K, Wyke S, Gray CM, et al. A gender-sensitised weight loss and healthy living programme for overweight and obese men delivered by Scottish Premier League football clubs (FFIT): a pragmatic randomised controlled trial. *Lancet* 2014; **383**(9924): 1211-21.
Huseinovic 2016	Huseinovic E, Bertz F, Leu Agelii M, Hellebö Johansson E, Winkvist A, Brekke HK. Effectiveness of a weight loss intervention in postpartum women: results from a randomized controlled trial in primary health care. *Am J Clin Nutr* 2016; **104**(2): 362-70.
Irwin 2003	Irwin ML, Yasui Y, Ulrich CM, et al. Effect of exercise on total and intra-abdominal body fat in postmenopausal women: a randomized controlled trial. *JAMA* 2003; **289**(3): 323-30.
Jackson 1982	Jackson HJ, Thorbecke PJ. Treating obesity of mentally retarded adolescents and adults: an exploratory program. *Am Jj Ment Defic* 1982; **87**(3): 302-8.
Jackson 2018	Jackson JB, Pietrabissa G, Rossi A, Manzoni GM, Castelnuovo G. Brief strategic therapy and cognitive behavioral therapy for women with binge eating disorder and comorbid obesity: A randomized clinical trial one-year follow-up. *J Consult Clin Psychol* 2018; **86**(8): 688-701.

Study ID	Primary reference
Jakicic 2011	Jakicic JM, Otto AD, Lang W, et al. The effect of physical activity on 18-month weight change in overweight adults. *Obesity (Silver Spring)* 2011; **19**(1): 100-9.
Jakicic 2015	Jakicic JM, Rickman AD, Lang W, et al. Time-based physical activity interventions for weight loss: a randomized trial. *Med Sci Sports Exerc* 2015; **47**(5): 1061-9.
Jebb 2011	Jebb SA, Ahern AL, Olson AD, et al. Primary care referral to a commercial provider for weight loss treatment versus standard care: a randomised controlled trial. *Lancet* 2011; **378**(9801): 1485-92.
Jebb 2017	Jebb SA, Astbury NM, Tearne S, Nickless A, Aveyard P. Doctor Referral of Overweight People to a Low-Energy Treatment (DROPLET) in primary care using total diet replacement products: a protocol for a randomised controlled trial. *BMJ open* 2017; **7**(8): e016709.
Jeffery 1995	Jeffery RW, Wing RR. Long-term effects of interventions for weight loss using food provision and monetary incentives. *J Consult Clin Psychol* 1995; **63**(5): 793-6.
Jeffery 2003	Jeffery RW, Wing RR, Sherwood NE, Tate DF. Physical activity and weight loss: does prescribing higher physical activity goals improve outcome? *Am J Clin Nutr* 2003; **78**(4): 684-9.
Jenkins 2017	Jenkins DJA, Boucher BA, Ashbury FD, et al. Effect of Current Dietary Recommendations on Weight Loss and Cardiovascular Risk Factors. *J Am Coll Cardiol* 2017; **69**(9): 1103-12.
John 2011	John LK, Loewenstein G, Troxel AB, Norton L, Fassbender JE, Volpp KG. Financial incentives for extended weight loss: a randomized, controlled trial. *J Gen Intern Med* 2011; **26**(6): 621-6.
Jolly 2011	Jolly K, Lewis A, Beach J, et al. Comparison of range of commercial or primary care led weight reduction programmes with minimal intervention control for weight loss in obesity: lighten Up randomised controlled trial. *BMJ* 2011; **343**: d6500.
Jones 1986	Jones SE, Owens HM, Bennett GA. Does behaviour therapy work for dietitians? An experimental evaluation of the effects of three procedures in a weight reduction clinic. *Hum Nutr Appl Nutr* 1986; **40**(4): 272-81.
Jones 1999	Jones DW, Miller ME, Wofford MR, et al. The effect of weight loss intervention on antihypertensive medication requirements in the hypertension Optimal Treatment (HOT) study. *Am J Hypertens* 1999; **12**(12 Pt 1-2): 1175-80.
Katula 2013	Katula JA, Vitolins MZ, Morgan TM, et al. The Healthy Living Partnerships to Prevent Diabetes study: 2-year outcomes of a randomized controlled trial. *Am J Prev Med* 2013; **44**(4 Suppl 4): S324-32.
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Keogh 2014	Keogh JB, Pedersen E, Petersen KS, Clifton PM. Effects of intermittent compared to continuous energy restriction on short-term weight loss and long-term weight loss maintenance. *Clin Obes* 2014; **4**(3): 150-6.
Keranen 2009	Keränen AM, Savolainen MJ, Reponen AH, et al. The effect of eating behavior on weight loss and maintenance during a lifestyle intervention. *Prev Med* 2009; **49**(1): 32-8.
King 1989	King AC, Frey-Hewitt B, Dreon DM, Wood PD. Diet vs exercise in weight maintenance. The effects of minimal intervention strategies on long-term outcomes in men. *Arch Intern Med* 1989; **149**(12): 2741-6.
Kingsley 1977	Kingsley RG, Wilson GT. Behavior therapy for obesity: a comparative investigation of long-term efficacy. *J Consult Clin Psychol* 1977; **45**(2): 288-98.
Knauper 2018	Knäuper B, Carrière K, Frayn M, et al. The Effects of If-Then Plans on Weight Loss: Results of the McGill CHIP Healthy Weight Program Randomized Controlled Trial. *Obesity (Silver Spring)* 2018; **26**(8): 1285-95.
Kuller 2012	Kuller LH, Pettee Gabriel KK, Kinzel LS, et al. The Women on the Move Through Activity and Nutrition (WOMAN) study: final 48-month results. *Obesity (Silver Spring)* 2012; **20**(3): 636-43.
Kumanyika 2012	Kumanyika SK, Fassbender JE, Sarwer DB, et al. One-year results of the Think Health! study of weight management in primary care practices. *Obesity (Silver Spring)* 2012; **20**(6): 1249-57.

Study ID	Primary reference
Leahey 2014	Leahey TM, Thomas G, Fava JL, et al. Adding evidence-based behavioral weight loss strategies to a statewide wellness campaign: a randomized clinical trial. *Am J Public Health* 2014; **104**(7): 1300-6.
Leahey 2015	Leahey TM, Subak LL, Fava J, et al. Benefits of adding small financial incentives or optional group meetings to a web-based statewide obesity initiative. *Obesity (Silver Spring)* 2015; **23**(1): 70-6.
Lejeune 2003	Lejeune MP, Van Aggel-Leijssen DP, Van Baak MA, Westerterp-Plantenga MS. Effects of dietary restraint vs exercise during weight maintenance in obese men. *Eur J Clin Nutr* 2003; **57**(10): 1338-44.
Ley 2004	Ley SJ, Metcalf PA, Scragg RK, Swinburn BA. Long-term effects of a reduced fat diet intervention on cardiovascular disease risk factors in individuals with glucose intolerance. *Diabetes Res Clin Pract* 2004; **63**(2): 103-12.
Li 2016	Li X, Cai X, Ma X, et al. Short- and Long-Term Effects of Wholegrain Oat Intake on Weight Management and Glucolipid Metabolism in Overweight Type-2 Diabetics: A Randomized Control Trial. *Nutrients* 2016; **8**(9).
Li 2005	Li Z, Hong K, Saltsman P, et al. Long-term efficacy of soy-based meal replacements vs an individualized diet plan in obese type II DM patients: relative effects on weight loss, metabolic parameters, and C-reactive protein. *Eur J Clin Nutr* 2005; **59**(3): 411-8
Lindstrom 2003	Lindström J, Louheranta A, Mannelin M, et al. The Finnish Diabetes Prevention Study (DPS): Lifestyle intervention and 3-year results on diet and physical activity. *Diabetes care* 2003; **26**(12): 3230-6.
Liss 2016	Liss DT, Finch EA, Gregory DL, Cooper A, Ackermann RT. Design and participant characteristics for a randomized effectiveness trial of an intensive lifestyle intervention to reduce cardiovascular risk in adults with type 2 diabetes: The I-D-HEALTH study. *Contemp Clin Trials* 2016; **46**: 114-21.
Little 2016	Little P, Stuart B, Hobbs FR, et al. An internet-based intervention with brief nurse support to manage obesity in primary care (POWeR+): a pragmatic, parallel-group, randomised controlled trial. *Lancet Diabetes Endocrinol* 2016; **4**(10): 821-8.
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Lowe 2018	Lowe MR, Butryn ML, Zhang F. Evaluation of meal replacements and a home food environment intervention for long-term weight loss: a randomized controlled trial. *Am J Clin Nutr* **107**(1): 12-9.
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Study ID	Primary reference
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Study ID	Primary reference
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Study ID	Primary reference
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Sattin 2016	Sattin RW, Williams LB, Dias J, et al. Community Trial of a Faith-Based Lifestyle Intervention to Prevent Diabetes Among African-Americans. *J Community Health* 2016; **41**(1): 87-96.
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Study ID	Primary reference
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Trepanowski 2017	Trepanowski JF, Kroeger CM, Barnosky A, et al. Effect of Alternate-Day Fasting on Weight Loss, Weight Maintenance, and Cardioprotection Among Metabolically Healthy Obese Adults: A Randomized Clinical Trial. *JAMA Intern Med* 2017; **177**(7): 930-8.
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Study ID	Primary reference
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West 2007	West DS, DiLillo V, Bursac Z, Gore SA, Greene PG. Motivational interviewing improves weight loss in women with type 2 diabetes. *Diabetes Care* 2007; **30**(5): 1081-7.
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Study ID	Primary reference
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Wing 1998	Wing RR, Venditti E, Jakicic JM, Polley BA, Lang W. Lifestyle intervention in overweight individuals with a family history of diabetes. *Diabetes Care* 1998; **21**(3): 350-9.
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Wing 2010	Wing RR, West DS, Grady D, et al. Effect of weight loss on urinary incontinence in overweight and obese women: results at 12 and 18 months. *J Urol* 2010; **184**(3): 1005-10.
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Yin 2018	Yin Z, Perry J, Duan X, et al. Cultural adaptation of an evidence-based lifestyle intervention for diabetes prevention in Chinese women at risk for diabetes: results of a randomized trial. *Int Health* 2018; **10**(5): 391-400.
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Table 2. Risk of bias of included studies

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
1	**Abed 2013**	UNCLEAR	UNCLEAR	LOW	LOW	HIGH
	Assessment justification:	Single-centre, partially blinded RCT.	No explicit information regarding allocation concealment provided: Study coordinators, treating physicians, and other personnel, with the exception of weight loss counselors, were blinded to randomization. Patients were instructed not to disclose their status. Patient records contained generic statements without indicating group allocation.	Weight objectively measured.	At 12 months, 109 (73%) had completed the study (57 in the intervention group and 52 in the control group). By 15 months, 81 (54%) remained (42 in the intervention group and 39 in the control group).	Weight data at 3, 6, 9 and 12 months from a sub-study (Abed 2015). 87 participants agreed to CMR (cardiac magnetic resonance) imaging (43 in control group, 44 in intervention group at baseline). 69 participants had baseline and 12-month follow-up (33 in control group, 36 in intervention group at 12 months).
2	**Ackermann 2011**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"matched-pair, group-randomized pilot intervention trial involving two YMCA facilities in greater Indianapolis." No further information provided regarding matching.	NS	Body weight was measured using a calibrated, beam-balanced scale with participants wearing light clothing and no shoes.	Less than 50% attrition at 12-month follow-up.	
3	**Agras 1990**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"computer generated table of random numbers"	NS	Weight objectively measured.	12-months follow-up: 29/30 computer alone; 29/30 computer + group; 30/30 behaviour therapy	
4	**Ahern 2017**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"The randomisation sequence was generated by the trial statistician and allocates participants in a 2:5:5 allocation stratified by centre and gender, with a block size of 12."	" The sequence is unknown to research staff and participants."	Weight objectively measured. "Weight and fat mass will be measured in kg using a Tanita segmental body composition analyser."	3-months retention rate: Brief intervention: 68%; 12-week programme: 76.4%; 52-week programme: 86.2%; 12-month retention rate: Brief intervention: 58.7%; 12-week programme: 63.9%; 52-week programme: 68.2%; 24-month retention rate: Brief intervention: 63%; 12-week programme: 67%; 52-week programme: 69.7%;	
5	**Almanza -Aguilera 2018**	UNCLEAR	UNCLEAR	LOW	HIGH	
	Assessment justification:	Participants were randomly allocated to either the control or the treatment group. No further information given.	NS	"Anthropometric measurements, including weight, height, waist circumference (WC), and BMI, were taken by trained nurses..."	"Of the 115 participants recruited, 58 were excluded due to dropout or failure to show at all visits (n = 43), illness (n = 6), unavailable sample at some time point (at baseline, 3 or 12 months, n = 7), or change of residence (n = 2). Therefore, 57 participants were included in the present data analyses." Control n = 27 analysed out of 48 randomised; Treatment n = 30 analysed out of 67 (44.7% retained).	
6	**Ames 2005**	UNCLEAR	UNCLEAR	UNCLEAR	HIGH	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Women who met the eligibility criteria were stratified based on a median split of BMI and were subsequently randomized to one of two treatment conditions." No further information given.	NS	NS	"The high rate of attrition during the Phase I run-in period represents a limitation of this study." "Following screening, 80 women met the eligibility criteria for randomization; 67 enrolled in the study and attended the first week of treatment." 28 participants completed the Phase I run-in period and entered the Phase II experimental stage. 26 of the 28 participants who started Phase II of the program completed participation through Phase III.	
7	**Andersen 1999**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"Participants were randomly assigned to 1 of the 2 conditions described above." No further information given.	NS	Weight objectively measured. Where a subjective component potentially existed (e.g. measurement of aerobic fitness), tester was blinded.	40 randomized 38 completed 16-week follow-up; 33 completed 68-week follow-up.	
8	**Anderson 2014**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"A statistician, independent of the analysis of study outcomes, had previously generated a randomisation list (site specific identification numbers and group allocation) by using a permuted block technique, with block sizes of four and eight, stratified by trial site."	"This list was emailed to the study administrator and trial manager. Research nurses allocated participants a site specific identification number sequentially and notified the study administrator on completion of baseline measures for each participant. The study administrator then identified the participant's group allocation from the randomisation list and notified the lifestyle counsellor of participants allocated to the intervention group or sent the weight loss booklet to participants allocated to usual care."	Weight objectively measured. "The study team, including the research nurses, were blinded to the participant's group allocation until completion of the primary outcome analysis. Exceptions were the trial manager, study administrator, lifestyle counsellors, and participants who could not be blinded owing to the nature of the intervention. None of these unblinded staff had a role in data analysis."	"The remaining 329 were randomised (163 to intervention, 166 to control). At three months 314 (94% intervention, 97% control) participants had completed the primary outcome measures, and 305 (91% intervention, 95% control) completed the trial at 12 months (93%)."	
9	**Annesi 2016**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	Weight objectively measured.	"Attrition from initial study acceptance to actual treatment participation was minimal at 7% and also did not significantly differ by group."	
10	**Annesi 2017**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"To avoid cross-contamination of participants and instructors, randomisation to either the experimental (n=53) or comparison (n=54) condition was by the participating community wellness centres (3 for each condition)." Unclear if cluster randomised. No further information given.	To minimise expectation and cross-contamination effects, wellness leaders were trained in only 1 of the protocols by study staff and blinded to study goals. No further information given.	Weight objectively measured.	"Because the requirement of data being missing at random (no systematic bias) was present, the expectation-maximisation algorithm was used for the 12% of cases necessitating imputation within the present intention-to-treat format." Indicates 12% drop out, so 94/107 completed	
11	**Appel 2011**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Randomization was stratified according to sex and was generated in blocks of 3 and 6 with the use of a Web-based program."	Web-based program.	"Participants were asked to make in-person follow-up visits 6, 12, and 24 months after randomization. At each of these visits, weight was measured on a high-quality, calibrated digital scale, with the participant wearing light, indoor clothes and no shoes."	6-month follow-up: Control: 113/138*100= 81.9%; Remote: 129/139*100 = 92.8%; In-person: 124/138*100 = 89.9% 12-month follow-up: Control: 108/138*100= 78.3%; Remote: 124/139*100 = 89.2%; In-person: 123/138*100 = 89.1% 24-month follow-up : Control: 129/138*100= 93.5%; Remote: 132/139*100 = 95%; In-person: 133/138*100 = 96.4%	
12	**Ard 2004**	LOW	LOW	LOW	LOW	
	Assessment justification:	Randomization assignments were made centrally by a computer program. Assignments were stratified by clinic and hypertension status; the randomization block size was 24.	Randomization assignments were made centrally by a computer program.	Weight was measured using a calibrated scale.	Less than 25% attrition at 6-month and 18-months follow-up.	
13	**Ard 2018**	LOW	LOW	LOW	LOW	
	Assessment justification:	The statistician generated blocked random assignments using a computer-based algorithm, stratified by age category (65–74, 75+), sex, and race.	Allocations were concealed in sealed envelopes that were opened by a research assistant at the time of randomization.	Body weight was measured in light clothing on calibrated electronic scales to the nearest 0.1 pound and converted to kilograms.	Less than 50% attrition.	
14	**Ash 2006**	LOW	UNCLEAR	LOW	HIGH	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	Randomised by the project manager, using a random number table, into one of three intervention groups at one of two hospital sites. The allocation ratio for the two hospital sites (public and private) was 2:1 due to available resources for implementing the intervention.	NS	Weight objectively measured.	BO = 20/54 complete data 37% IDT = 44/65 complete data 66.7% FBI = 26/57 complete data 45.6% Significant between group difference in drop out and people who dropped out had significantly higher baseline BMI. At 12 months 24 BO, 49 IDT and 29 FBI had weight measurements.	
15	**Ashley 2001**	UNCLEAR	UNCLEAR	LOW	HIGH	
	Assessment justification:	NS	NS	Weight objectively measured. Certified technicians took blood pressure and body composition measurements. Fasting blood was taken for measuring serum lipids (total cholesterol, low density lipoprotein [LDL] cholesterol, high-density lipoprotein [HDL] cholesterol, and triglycerides), glucose, and insulin by a certified phlebotomist. Blood values were analyzed by standard methods at a statewide, certified clinical laboratory.	12-months: 74/113 completed all assessments: LOW 24-months: 39/113 completed all assessments: HIGH	
16	**Ashley 2007**	UNCLEAR	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	NS	NS	Weight objectively measured. Waist circumference was measured at the narrowest point of the torso using a nonstretchable measuring tape. Blood pressure was measured while the subject was seated using a digital manometer machine.	12-months: 70/96 completed (35 from each group)	
17	**Aveyard 2016**	LOW	LOW	LOW	LOW	
	Assessment justification:	"An independent statistician used Stata Software version 12 to produce a randomisation list that was stratified by physician, with random permuted blocks of four."	"Randomisation was done via preprepared randomisation cards labelled with a code representing the allocation, which were placed in opaque sealed envelopes and given to physicians to open at the time of treatment assignment."	Weight objectively measured.	"We weighed 1419 (75%) of participants at the 12-month follow-up."	
18	**Azar 2013**	LOW	LOW	LOW	LOW	
	Assessment justification:	Participants are randomized on a 1:1:1 basis to one of three arms: UC, SM, or CM. Pocock's "minimization" procedure is used to assure better than chance group balance with respect to participant age, gender, race, BMI, fasting blood glucose, waist circumference, and use of PAMFOnline, which is PAMF's online patient portal to access his or her own health record (user vs. non-user). For each participant about to be randomized, a computerized randomization algorithm automatically calculates an imbalance score for each of the balancing factors, as the excess or deficit of previously randomized participants in each arm matching the current patient on that factor. These scores are summed over factors to form a total imbalance score, S, for each treatment arm. The randomization probability of assigning the patient to the treatment associated with the smallest S is set to 2/3, and the other two treatments are	A designated research staff member who is not involved in follow-up data collection or data analysis assigns each study arm a non-revealing label, e.g., A, B, or C, and performs actual randomization of the participants.	Weight objectively measured.	171/241 participants at 24-months.	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
		each assigned a probability of 1/6 based on Efron's biased coin method.				
19	**Bacon 2002**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"To ensure balance in the treatment groups, the enrolled subjects (n = 78) were divided into BMI quartiles, and high/ low sets for dietary restraint, 34 degrees of flexible and rigid control of eating, 35 age, and self-reported activity level. The subjects in these subgroups were then randomly assigned to one of two treatment groups."	NS	Weight objectively measured. Blood pressure was assessed in duplicate using the oscillometric technique. Fasting blood samples were analyzed for blood lipids (total cholesterol, low-density lipoprotein [LDL] cholesterol, and high-density lipoprotein [HDL] cholesterol).	52-weeks: Diet group: 23/39 completed testing; HAES group: 34 attended (29 completed testing)/36	
20	**Barnes 2017**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	Participants were randomly assigned, stratified by BED diagnosis, to one of three conditions. No further information given.	NS	Weight objectively measured.	Less than 50% attrition at 12-month follow-up.	
21	**Bartels 2015**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"Randomization between In SHAPE and the comparison condition was stratified by age (21 to 44 years versus 45 years and older) and psychiatric diagnosis (mood disorders versus schizophrenia spectrum disorders). Each combination of stratification categories had its own randomization schedule that was blocked on every fourth assignment to ensure balance between treatment arms. Randomization was conducted sequentially across all sites (not within sites)."	NS	Weight objectively measured. 'Blood pressure was measured before (resting heart rate) and after completing the 6-MWT' 'Lipids were measured using the CardioChek PA Analyzer, a portable testing system that produces reliable values for total cholesterol, LDL, HDL, and triglycerides using a multi-panel test strip and a single drop of blood acquired with a finger prick.'	18-months: Control: 83/106 Intervention: 80/104	
22	**Beavers 2017**	UNCLEAR	UNCLEAR	LOW	LOW	UNCLEAR

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Eligible participants will be randomized to one of the three treatment arms at the end of baseline testing using a stratified (by wave) block randomization scheme."	NS	Weight objectively measured.	"At the 6-month assessment, 90.3% were retained, whereas at 18 months, this value was 77.1%. There was no differential loss to follow-up as a function of treatment group at either time point: p=.07 at 6 months and p=.268 at 18 months."	Cholesterol, glucose and BP measured but not reported. Authors contacted however do not have statistical support to provide further analyse. Judged as unclear for selective reporting.
23	**Beeken 2017**	LOW	LOW	LOW	LOW	
	Assessment justification:	"A computer-generated list of random permuted blocks of size 2–4 was used. Randomisation was stratified by PCP to ensure socioeconomic balance between groups."	"A central telephone-based randomisation service was used to randomise at the level of the patient ensuring allocation concealment"	"All measurements at 3 months were with a health professional blind to group allocation." Weight objectively measured.	At 12-months, 61% (Control) and 57% (10TT) were followed up. "At 24 months, 312 (58.1%) patients were followed up. There remained very little difference in attrition between arms (41.5% in the usual care group vs 42.3% in the 10TT group)."	
24	**Bennett 1986**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	Weight objectively measured.	"Of the 102 eligible subjects, 94 attended on WI, 85 on W3, 74 on W16 and 69 at F3. The use of Fisher's Exact Probability Test failed to find any evidence of significant differential attrition between treatment conditions."	
25	**Bennett 2012**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	Participants were randomized to treatment arm using computer-generated allocations, blocked by clinic and sex.	NS	Weight objectively measured.	24-months: Usual care: 166/185 Intervention: 148/180	
26	**Bennett 2013**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	A computer-generated randomization algorithm to allocate participants equally (1:1) across the 2 treatment arms (intervention and usual care); those in the intervention arm were further randomized to 1 of 2 interventionists.	NS	Weight objectively measured. Secondary measures included waist circumference, blood pressure, and fasting glucose,	Usual care: 90/97 Intervention: 86/97	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
				triglyceride, and cholesterol level.		
27	**Berendsen 2011**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"Prior to randomization, all practices have been matched pair wise based on size and location in an urban or rural area, to create two equivalent samples of 15 practices. In each pair, one practice has been randomized to the control condition, while the other was randomized to the experimental condition. To reduce the risk of contamination within a region, practices in the same region were allocated to the same condition as the first practice in that region that was randomized."	"Allocation to the conditions, however, will take place at the level of GP practices, so clustering of patients within these practices should be taken into account." No further information given.	Weight objectively measured.	Start up (CLI) weight data 146 at baseline; 97/146 at 12mths (LOW); 76/146 at 24mths (HIGH) Supervised (CLI+) weight data 223 at baseline; 137/223 at 12mths (LOW); 105/223 at 24mths (HIGH)	
28	**Berry 2014**	UNCLEAR	LOW	LOW	LOW	HIGH

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	Cluster randomization. "The sequence of each school was randomized before the start of the study and was stratified by county. A total of 18 months had passed and the first group had completed their time in the study prior to the second enrollment in each school. This design preserved a balance of treatment groups within each site to avoid confounding site effects with intervention effects."	"Participants and staff were blinded to group assignment from enrollment until implementation."	Weight objectively measured.	59% of control group and 57% of intervention group at last follow up. "To assess the extent of selection bias owing to attrition, the mean values for BMI percentiles were compared between those participants who did not contribute data beyond the Phase I intervention and those who did. There were no significant differences between these groups, either overall or by experimental group (P.0.35). "	Wait-list control
29	**Bertram 1990**	HIGH	UNCLEAR	UNCLEAR	HIGH	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	'Randomly selected' 200 informed women with a body mass index (BMI) greater than 30 volunteered to participate in a 16-week study. In order to optimise compliance, only subjects who declared their willingness to be assigned to any one of the three interventions were selected. Fifteen subjects were then randomly selected for each of the above three groups, so that age and BMI were similar.	NS	NS	At 16 weeks "Of the 45 subjects who started the project, 36 completed the 16-week course: 2 subjects became pregnant and were withdrawn from the exercise group, while 7 subjects 'absconded' from the control group and were lost to the study. There were no withdrawals from the lecture group. "At follow up "Unfortunately we were only able to re-test 12 of the 36 subjects who completed the original study; 18 of the remaining 24 were unable to participate either because they had changed residence or because they were employed and unable to attend re-evaluation sessions. The remaining 6 subjects admitted to having gained weight, and refused to participate in the follow up study. All 6 of these subjects were from the control group. Of the 12 subjects re-tested, 3 were from the exercise group, 7 from the lecture group, and 2 from the control group."	
30	**Bertz 2012**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	Random number table	Allocation method not reported but described as 'concealed'.	Weight objectively measured. Body composition was measured by using dual-energy X-ray absorptiometry (DXA) (Lunar Prodigy; GE Lunar Corp). Muscle mass was calculated from DXA.	92% followed up at 12-months, intervention 100%, D 76%, E 83%, control 76%. 4 missing (6%); 2 medical reasons (3%).	
31	**Beutel 2006**	UNCLEAR	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"These 396 patients were externally randomized (random digits) either to BT or to PD. A minority of patients who were directly referred to a specific setting (usually behavioral) were excluded from randomization."	NS	Upon intake, BMI was checked based on the current weight and height. Follow-up GPs assessed blood pressure, weight and laboratory data.	Behaviour treatment: 154/175 at approximately 7-weeks; At 12-months: 97/175 Psychdynamic treatment: 168/179; 97/179 at 1 year.	
32	**Bliddal 2011**	UNCLEAR	UNCLEAR	LOW	HIGH	
	Assessment justification:	"Each randomisation list was drawn up by the study statistician (RC) and given to the secreteriat at the Parker Institute, who subsequently informed patients when to meet the dietician."	"The random allocation sequence was concealed until interventions were assigned: Each randomisation list was drawn up by the study statistician (RC) and given to the secreteriat at the Parker Institute, who subsequently informed patients when to meet the dietician."	Weight objectively measured.	12-months: Control 23/44; LED 33/44	
33	**Bo 2007**	LOW	LOW	LOW	LOW	
	Assessment justification:	"The randomization procedure was automatically performed by a statistician using an SAS program developed to minimize the differences between the two groups for all stratifying variables. The patients were randomly allocated to receive either standard lifestyle recommendations from their physicians (control group, n=188) or a structured lifestyle intervention program for 1 year carried out by health professionals (intervention group, n=187)."	"Random allocation with a minimization algorithm was centrally performed in a single step. The researchers then received the two lists of nominative data. The possibility for researchers to predict or influence the allocation of participants was thus completely prevented."	Weight, waist circumference, and blood pressure were measured. Fasting glucose, insulin, triglycerides, high-density lipoprotein (HDL) cholesterol, uric acid, and hs-CRP values were measured before and after the study in both groups.	12-months: Control: 166/188 Intervention: 169/187	
34	**Brown 2014**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	Randomised block design. Computer-generated random assignment was used to assign an equal number of individuals from each risk group to the weight loss program (RENEW) or to a control group.	NS	Weight objectively measured.	136 at baseline. 92 at 12 months (47 intervention; 45 control)	
35	**Burke 2005**	LOW	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	Random allocation - computer-generated random numbers. Random allocation to groups was stratified by age and BMI and used a block size of 4.	NS	Weight objectively measured.	Control: 98/118 at 4 months; 90/118 at 1 year follow up (16 months); 64/118 at 3 year follow up (40 months). Intervention: 106/123 at 4 months; 102/123 at 16 months; 76/123 at 40 months.	
36	**Burke 2015**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	Randomization used the minimization method. Treatment assignments were determined considering gender and ethnicity (White vs. non-White) to ensure balance across the treatment groups.	NS	"Data were collected at the research center by trained staff using standardized procedures and questionnaires. Equipment was standardized and routinely calibrated"	79.2% in SBT arm and 81% in SBT+SE arm completed 18-month assessment.	
37	**Cesa 2013**	LOW	UNCLEAR	LOW	HIGH	
	Assessment justification:	The randomization scheme was generated by using a randomization website. Ref: Randomization. [2013-05-14]. website http://randomization.com/	NS	Weight objectively measured.	Before treatment completion (0-5 weeks), 24 patients discharged themselves from hospital (4 in ECT, 10 in CBT, and 10 in IP). 27% drop out. 66 patients remained. 22 patients who received all sessions did not provide follow-up data (9 in ECT, 6 in CBT, and 7 in IP). 44 patients completed all stages. 49% completed. Paper reports "medium-high rate of nonresponders (33.4%); "66 patients intervention 44 patients at 1 year follow up. 66.7% completed if take initial number to be 66 people.	
38	**Chaiyasoot 2018**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	Randomly assigned (1:1 allocation) to receive either LEI or LEI + MR by a computer generated block randomisation.	"Opaque concealed envelopes were drawn by independent personnel who was not involved in the study to ensure allocation concealment. Neither the investigators nor the participants were blinded to the group allocation due to the nature of the intervention."	Weight objectively measured. BP and PR were obtained using an electronic sphygmomanometre (Terumo Elemano [ES-H55], Medaval, New Jersey, United States) in a comfortable sitting position after at least 15-min rest. Blood sampling was undertaken following a 12-h overnight fast. TC, HDL-c, LDL-c, TG, glucose, insulin, urine microalbumin and urine creatinine were analysed with a biochemical autoanalyser (Cobas® 8000 Modular Analyser Series, Roche Diagnostics, Indianapolis, United States). HbA1c was determined using Cobas Integra® 800 analyser, Roche Diagnostics, Indianapolis, United States. Homeostatic model assessment of insulin resistance (HOMA-IR) was calculated as: HOMA-IR = (FPG × fasting insulin)/22.5 in molar units.	LEI: 45/52 at 12-weeks; 44/52 at 64-weeks. LEI + MR: 48/58 at 12-weeks; 42/58 at 64-weeks.	
39	**Chee 2017**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	Patients were randomized using a random allocation software.	NS	Weight objectively measured.	UC: 3mth: 105/115; 6mth: 101/115; 9mth: 99/115; 12mth 98/115 tDNA-CC: 3mth: 48/57; 6mth: 40/57; 9mth: 40/57; 12mth: 40/57	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
					tDNA-MI: 3mth: 51/58; 6mth: 51/58; 9mth: 51/58; 12mth: 51/58.	
40	**Cheskin 2008**	LOW	UNCLEAR	LOW	HIGH	
	Assessment justification:	Random-number generator.	Allocation revealed when the participants were assigned to a group by the study coordinator (after randomisation)	Weight objectively measured.	At 34-weeks: standard diet 17/58 PCD 31/54 At 86-weeks: Standard diet 8/58 PCD 16/54	
41	**Cheyette 2007**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"Non probability volunteer sampling was used to assign people to either the intervention or the control group."	NS	Weight objectively measured.	" At six and 12 months follow up a total of eight people dropped out from the intervention group and two from the control group."	
42	**Christensen 2012**	LOW	LOW	LOW	LOW	LOW
	Assessment justification:	Cluster-randomization procedure. A cluster formation of the groups was performed to assure equal allocation in the intervention and reference groups balanced on sex, age, job seniority or job type with cluster size varying from 3 to 15.	The randomization was done by an external research group, which had no knowledge of the work place or the participants. Clusters were randomly allocated to intervention and control by the drawing of sealed envelopes from a bag.	The test manager was blinded regarding the participants intervention status, and whenever possible the same test manager tested the subject at all three rounds of tests	98 participants --> 83 participants.	Clusters were created based on information from the screening questionnaire and the management of working teams, day and evening/night shifts and close working relations. This approach was chosen to avoid contamination, and to benefit from the social support in work teams, thereby in- creasing compliance.
43	**Cleo 2018**	LOW	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Computer-generated randomization occurred after baseline assessment to allocate participants to either: TTT, DSD, or WL control (allocation ratio 1:1:1). We used minimization stratified on BMI categories (overweight, obese class I, II, III); age (18–32, 33–47, 48–62, 63–75 years); and gender."	NS	Weight objectively measured.	At 12-months: 21/25 (84%) 22/25 (88%)	
44	**Cole 2013**	LOW	LOW	LOW	UNCLEAR	
	Assessment justification:	"Randomization occurred by a computer-generated random-numbers list (SPSS version 15.0.1; IBM Corporation) with assignments placed in sealed envelopes, numbered sequentially, and allocated to participants in the order of recruitment."	Sealed envelopes used.	Weight objectively measured.	"…94 were randomized into the 2 study groups, 80% remained at 3 months, and 69% completed the 1-year assessment (n = 34 SMA, n = 31 control, n = 29 lost to follow-up)." "Limitations of the study resulted from a high attrition (31%)." Data only given at all points for those who completed year 1 – loss to follow-up from each group is unclear.	
45	**Conroy 2015**	UNCLEAR	LOW	UNCLEAR	LOW	
	Assessment justification:	"…randomization occurred in a 1:1 allocation. Each woman was allowed to draw a sealed envelope that contained a designation assignment, either interventionist-led (IL) or self-guided (SG)."	Sealed envelopes.	Weight was measured by a trained staff member in clinic using a standard balance beam scale (SECA Medichoice) and following a written protocol. " For the 12-month followup, 62 (74 %) of 84 participating women had an in-person assessment (with study-measured weight), with the remainder of the outcomes assessed by phone." Breakdown by group not clear	"Follow-up was better in the IL group (90 % at 3 months and 96 % at 12 months) than in the SG group (63 % at 3 months and 76 % at 12 months), but otherwise did not differ by other participant characteristics."	
46	**Cooper 2010**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Participants were allocated to the three treatments by HAD (who had no involvement in participant recruitment) using a stratified computer-generated randomization scheme with random permuted blocks of varying size within two strata. Participants were assigned to the two strata on the basis of their binge eating frequency with those reporting 12 or more episodes over the previous 12 weeks being classed as belonging to a binge eating subgroup."	"The allocation sequence was concealed in numbered sealed opaque envelopes. At the point of randomization, the next envelope in the sequence was opened by one of the two senior clinicians."	Weight objectively measured.	At 36-months the following completed assessment: 44/51 GSH 44/50 BT 46/49 CBT	
47	**Cousins 1992**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"Subjects were stratified according to weight and randomly assigned to one of the three treatment groups." No further information given	NS	Weight and height measured "using a standard physician's scale."	Total at start 168. 82 excluded because of missing data. 86 completed >50% LOW The remaining 82 subjects were excluded because of missing data at any of the 3-, 6-, and 12-month measurement sessions. Preliminary ANOVA revealed no significant differences on any of the baseline measures, including initial BMI, initial weight, age, acculturation, years of education, or income between the 86 subjects included in these analyses and the 82 who were excluded.	
48	**Craighead 1989**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"The subjects who met the qualifications for the study were rank-ordered according to pounds overweight and randomly assigned within blocks of three to one of the experimental conditions. Two groups were formed within each condition depending on subject's availability for meeting times."	NS	'subjects were weighed' at baseline, at each session, at end of 12 weeks and at 1 year.	62 recruited, 42 at 12 weeks, 38 at 1 year 14 dropped out. 'The dropout rate was not significantly different among the groups' The treatment analyses were conducted on the 42 subjects who fully participated in the	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
					treatment condition to which they had been assigned.	
49	**Crowley 2017**	LOW	LOW	LOW	LOW	HIGH
	Assessment justification:	"Eligible participants were randomized using a computerized random number generator in blocks of 2 (study personnel other than statisticians blinded to block size) within strata defined by baseline HbA1c level (7.5%-8.9% vs ≥9%) and insulin use (multiple types vs 1 type or none)."	After a patient's screening information has been reviewed and found to meet eligibility criteria, the study coordinator will access a computer program in which to enter the values of the stratification variables; in turn, the computer program will provide the participant's randomly assigned study arm: WM/SMA or SMA.	Body weight was measured at every visit using a standardized digital scale.	222/263 at 16-weeks; 198/263 at 32-weeks; 209/263 at 48-weeks GMV: 117/136 at 48-weeks. WM: 109/127 at 48-weeks	Baseline data for Systolic BP, total cholesterol and HDL-C is identical for both study groups. Emailed author to query whether these measures were taken before groups were randomised as this is unclear.
50	**Dale 2009**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	Weight objectively measured. "At the time of the euglycemic insulin clamp study, fasting blood samples were taken for lipid measurements, and anthropometry and blood pressure measurements were repeated."	87% followed up at 12 months (87% MI, 92% II, 87% control). Reasons for attrition not reported. Reviewers assumed equal loss to follow-up between intervention arms.	
51	**Dalziel 2006**	UNCLEAR	UNCLEAR	UNCLEAR	LOW	HIGH
	Assessment justification:	NS	NS	NS	"Shortly after randomisation, 21 (8 in the controls and 13 in the experimental group refused follow-up) (table 1)." The mean rate of withdrawal from follow-up was similar in the experimental (8%) and control (7%) groups.	Did not explicitly aim for weight loss so may introduce clinical heterogeneity into the review. Included after discussion as dietary intervention versus control.

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
52	**Damschroder 2014**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"…a biostatistician provided block randomized assignments (by medical center and two BMI categories [o35 or Z35] to ensure balance between groups) using random permutated blocks constructed by Stata's *ralloc* command; block sizes ranged from 3 to 9…"	"Investigators were blind to assignments until baseline assessments were complete."	Anthropometric measures (height, weight, and waist circumference); blood pressure; and self-reported measures including a Food Frequency Questionnaire; EuroQoL-5D utility assessment (with level of painsubscale); Satisfaction with Life Scale; demographic characteristics; laboratory testing for cholesterol and glucose metabolism; and a 6-minute walk test were collected in baseline, 3-month, and 12-month assessments.	Move: 3mth: 115/159; 12mth: 119/159 Aspire phone: 3mth: 131/162; 12mth: 120/162 Aspire group: 3mth: 127/160; 12mth: 122/160; Follow up 332/481 consented to long term follow up. Move: 18mth: 92/112; 24mth: 90/112 Aspire phone: 18mth: 95/105; 24mth: 92/105 Aspire group: 18mth: 102/115; 24mth: 104/115	
53	**Daubenmier 2016**	LOW	LOW	LOW	LOW	
	Assessment justification:	"A computer-generated random allocation sequence using random block sizes of four to eight was programmed by a database manager not involved in enrollment."	"No other staff had access to the randomization sequence. The project director (PM) accessed the allocation sequence using a programmed database that could not be altered once randomized condition was revealed."	"Weight was measured to the nearest 0.1 kg on a calibrated digital scale (Wheelchair Scale 6002, Scale-Tronix, Carol Stream IL), with participants wearing a hospital gown. The same scale was used for measurements throughout the study."	At 18-months follow-up 81% of participants from the mindfulness group and 71% from the control group were followed up.	
54	**Daumit 2013**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"Randomization was stratified according to sex and study site; assignments were generated in blocks of two and four." No further detail given	NS	Weight objectively measured. Measurements of blood pressure, waist circumference, and fasting blood chemical levels were obtained at baseline and at 6 and 18 months.	Control: 142/147 Intervention: 137/144	
55	**de Zwaan 2017**	UNCLEAR	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Individuals who met the respective inclusion criteria and who gave their written informed consent to participate were randomized. There were no stratification criteria."	"To ensure the concealment of allocation, randomization was performed centrally by fax by the Coordination Center for Clinical Trials (KKS) in Marburg. Eligibility assessment, obtaining informed consents, and enrolling the participants in the study were done at the respective study centers."	Treatment and assessment were separated. Therapists and coaches are not involved in assessing treatment outcome, and assessors are not allowed to hold treatment sessions or write e-mails. The statistician who will conduct the statistical analyses was not involved in randomization. Treatment allocation is not disclosed to the statistician until all data checks are completed.	Treatment attrition and study dropout during treatment were low. At intervention end: GSH-I: 77/89*100 = 86.5%; CBT: 85/89*100 =95.5% 6-month follow-up after intervention end: GSH-I: 70/89*100 = 79%; CBT: 80/89*100 =89.9% 12-month follow-up: GSH-I: 58/89*100 = 65%; CBT: 58/89*100 =65%	
56	**Delahanty 2015**	UNCLEAR	UNCLEAR	HIGH	LOW	
	Assessment justification:	NS	NS	"Participants' height and weight were measured twice and averaged on a stadiometer (baseline only) and digital scale, respectively." "To evaluate sustainability of weight loss, clinically obtained weights were abstracted from medical records, if available, 1 year after randomization date with a 10- to 14-month window."	"95% retention at 6 months." At 12 months, 2 GLI and 5 MNT participants had missing clinical data.	
57	**deRoon 2017**	LOW	UNCLEAR	HIGH	LOW	
	Assessment justification:	"After baseline measurements, women were stratified for municipality randomized by computer."	NS	"At baseline and end of study body weight was measured using an identical balance scale, but at follow-up, body weight was self-reported by the participants."	Anthropometrics: At 16-weeks: control 45/48; diet 94/97; exercise 93/98 At 12-months: control: NS;	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
					diet: 78/97; exercise: 77/98.	
58	**deVos 2016**	UNCLEAR	LOW	LOW	LOW	LOW
	Assessment justification:	"...subjects were randomized using consecutive case numbers. For the diet-and exercise program, subjects were randomized 1:1 using block randomization with block size 20."	"A research assistant not involved in the trial provided a sealed envelope that was opened by the subject in the presence of the researcher."	"For the first 2.5 y, all participants were home-visited every 6 mo by a research assistant..." "Body weight was also measured during these visits." "After 6.6 y, participants were visited once more for measurements and a questionnaire."	After 2.5 y, 10.1% of the participants were lost to follow-up. After 6.6 y, 247 participants (60.7%) agreed to additional measurements and questions. "No significant difference in attrition rate was found between the randomly assigned groups."	Original study design included 4 groups ((1) Lifestyle intervention plus placebo; (2) Lifestyle intervention plus Glucosamine; (3) Control plus placebo; (4) Control plus Glucosamine) which were combined into two groups. "The preventive effects of a weight-loss program and of oral glucosamine sulfate compared with placebo on the incidence of knee osteoarthritis were investigated in a 2x2 factorial design with a follow-up time of 6.6 y." No effects of glucosamine on these outcomes were expected or detected. Therefore, the glucosamine intervention will be disregarded in the present manuscript."
59	**DeZwaan 2005**	UNCLEAR	UNCLEAR	HIGH	UNCLEAR	
	Assessment justification:	NS	NS	"Follow-up data were obtained during an office visit whenever possible, by mail, or by telephone." "Thirty-nine were interviewed in person and their weight was measured in the office, whereas 21 were	" Six-month follow-up results were available for 60 participants (84.5%)." At the 1-year follow-up, questionnaire data were available for 40-42 (56.3 %-59.1%), weight data for 62	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
				interviewed by phone and self-reported their current weight."	(87.3%), and SCID data for 64 (90%) participants.	
60	**Diabetes Prevention Program R G 2009**	LOW	LOW	LOW	LOW	HIGH
	Assessment justification:	"The randomization was done centrally by computer…" Random treatment assignments were stratified according to clinical center and were generated by the coordinating center through computer linkup to the field center at time of randomization. Therefore, assignment was unknown until randomization. Assignments to metformin and placebo were double-blinded.	"…assignments to the lifestyle group were blinded until randomization, while assignments to the medication groups were blinded until the end of the study."	Lifestyle intervention participants were weighed privately at the start of every individual session and were encouraged to weigh themselves at home daily or a minimum of once per week.	Placebo yr. 1 - 1027/1082; yr. 2 - 1015/1082; yr. 3 - 975/1082. Bridge period DPPOS - 1085 eligible, 935 enrolled. DPPOS yr. 1 882/935; yr. 2 874/935; yr. 3 844/935; yr. 4 - 827/935; yr. 5 - 846/935; yr. 6 808/935; yr. 7 - 789/935; yr. 8 766/935; yr 9. 760/935; yr. 10 - 763/935; yr. 11- 769/935. Lifestyle yr. 1 - 1026/1079; yr. 2 - 1001/1079; yr. 3 - 972/1079. Bridge period DPPOS - 1068 eligible, 914 enrolled. DPPOS yr. 1 855/914; yr. 2 827/914; yr. 3 816/914; yr. 4 - 810/914; yr. 5 - 824/914; yr. 6 783/914; yr. 7 - 763/914; yr. 8 757/914; yr. 9 738/914;	0-3 years LOW From year 4 HIGH DPP was a 3-year randomized clinical trial followed by open-label modified intervention follow-up.

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
					yr. 10 - 725/914; yr. 11.- 738/914.	
61	**Djuric 2002**	UNCLEAR	UNCLEAR	HIGH	LOW	HIGH
	Assessment justification:	48 patients were randomly assigned into four research groups by random block design. At baseline: "There were no differences among the four groups in body weight and BMI. Nevertheless, there were significant differences in percentage body fat, total cholesterol, and LDL-C at baseline, indicating that the block randomization process did not equalize all parameters among groups. However, the highest values of these parameters were not consistently found in any one group."	NS	'Weighed in clothing but without shoes using a professional beam scale (model 402KLS; Health-o-Meter, Bridgeview, IL), and percentage of body fat was measured using tetrapolar bioelectrical impedance (model BIA101S; RJL Systems, Clinton Township, MI). Height was measured at baseline only.'	18.75% dropped out by end of study. At 12-months: Control: 12/13 WW: 8/11 Individualised: 9/13 Comprehensive: 10/11	Missing outcome data - study states intention to follow up to 30 months but 30-month data not available. Data for 3 and 6 months extracted from graphs but some inconsistency between graphs and what is reported in text.
62	**Donnelly 2013**	LOW	LOW	LOW	LOW	
	Assessment justification:	"Participants were randomized to FTF clinic or phone at a 1:1 ratio by the study statistician (MSM)." "The randomization sequence was generated by an independent statistician and then sent to the project coordinator and concealed until intervention groups were assigned. Randomization was stratified by gender using random permuted blocks of size 4 for each strata with a total of 395 participants."	"The randomization sequence was generated by an independent statistician and then sent to the project coordinator and concealed until intervention groups were assigned."	Weight objectively measured.	At 6-months: Phone: 84% Face to face: 86% At 18-months: Phone: 72% Face to face:74%	
63	**Duncan 2016**	LOW	LOW	LOW	HIGH	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"…participants were randomized into one of two groups using a simple randomization procedure stratified by clinic with a 1:1 allocation ratio." "…the order of control and intervention envelopes was distributed at each practice using a computer-generated randomization list." "Participants were randomized within practices such that some within a practice were assigned to treatment and some to control conditions. Participating practices were not used as the unit of randomization to avoid between-practice effects confounding between-group differences."	"Practice nurses and physicians were blinded to the designation of the envelopes…" (notifying participants of allocation to either control or intervention)	Weight objectively measured.	While participant drop-out from baseline to 4 months was 49%, the lack of between-group differences in baseline demographic and health indicators in individuals that dropped out of the study indicates that systematic bias was not introduced. "Of the 320 participants randomly assigned to control and intervention groups, 156 (48.8%) were followed-up at 4 months, with 157 (49.1%) at 12 months."	
64	**Eakin 2014**	LOW	LOW	LOW	LOW	LOW
	Assessment justification:	"Randomization was by the minimization method (18) using the MINIM program (www.sghms.ac.uk/depts/phs/guide/randser.htm)."	"Allocation is performed using the free Minim computer software [48] and conducted by a research assistant with minor involvement in participant recruitment."	"Data are collected via objective measurements conducted in participants' homes, telephone interviews, and selfadministered questionnaires at baseline, 6-, 18-, and 24- months by research staff and registered nurses blind to participants' study group."	"Attrition at 24 months was nondifferential and modest in both groups, yet ;40% of telephone counseling participants chose to discontinue receiving the intervention by withdrawal from either the intervention or study participation altogether."	"... even among telephone counseling group participants who did not withdraw, intervention delivery was difficult, with just over half of participants completing at least 75% of scheduled intervention calls."
65	**Eaton 2016**	LOW	LOW	LOW	LOW	
	Assessment justification:	"After the baseline visit was completed, participants were block randomized within practice in pairs using a random number generator created by the data manager with SPSS for Windows, version 11.0 (IBM)."	"After completion of the initial lifestyle counseling session, the research assistant gave each participant an envelope that revealed the study arm to which the participant was assigned."	Height, weight, waist circumference, resting heart rate, and resting blood pressure were measured at each visit.	Control: 78/106 at 6mths; 75/106 at 12mths; 77/106 at 18mths; 75/106 at 24mths Enhanced intervention: 88/105 at 6mths; 84/105 at 12mths; 75/105 at 18mths; 73/105 at 24mths	
66	**Fahey 2018**	LOW	LOW	HIGH	HIGH	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	Participants were individually randomly assigned, using a computerized block design (six blocks of four), to one of the two intervention conditions (1:1 allocation) with allocation concealment to ensure balanced assignment to both conditions throughout the study duration.	Refer to 'Random sequence generation (selection bias)'.	All measures were obtained by unblinded data collectors at baseline, 4 months, and 12 months unless otherwise indicated.	We had originally planned to recruit 204 participants; however, because of greater than expected attrition, we increased the sample size to 248 in order to retain power to detect our planned effect. To avoid introducing bias associated with attrition because of failure to lose weight, missing weight values were imputed conservatively using baseline observation carried forward. Retention rate n (%): 4-months: CI: 109/124*100 = 87.9%; SP: 90/124*100 = 72.6% 12-months: CI: 95/124*100 = 76.6%; SP: 77/124*100 = 62.1%	
67	**Fernandez-Ruiz 2018**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	Randomisation was performed using a simple table of numbers: 37 patients in the control group and 37 in the experimental group. "A random allocation sequence was generated by a member of the scientific staff through extraction of successive numbered balls from an opaque container, alternating between the experimental and the control group'	Refer to 'Random sequence generation (selection bias)'.	"The efficacy of the intervention was evaluated through anthropometric (body mass index, weight, different parameters, and skinfolds, as stated in Section 2) and cardiovascular measures taken before, during, and after intervention.' 'Anthropometric and cardiovascular measures were taken at the pretest stage, every 6 months during the programme, and 1 year after it finished."	No loss to follow up reported.	
68	**Finkelstein 2017**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"…a computer generated assignment schedule prepared by the statistician. Participants were randomized in a ratio of 1:2 (control: reward) using a block size of 6, with stratification based on gender, ethnicity (Chinese, Non-Chinese), and BMI (<32.5 kg/m2 , 32.5 kg/m2). Randomization was stratified by BMI to ensure that differences between treatment arms could not potentially be driven by differences in proportion of very high vs. moderate/high BMI."	"Randomization envelopes containing a slip of paper indicating the study arm were prepared by research staff not involved in random allocation. The envelopes were arranged in sequential order for each stratum, and the top-most envelope was picked by the study coordinator based on the specific stratum to which the participant belonged."	Weight measured objectively.	A total of 123 (76.4%) participants completed the month 12 assessment. 13 participants were lost to follow up at month 4; 5 (9.3%) in the control arm and 8 (7.5%) in the reward arm. At month 8, 35 participants were lost to follow-up; 16 (29.6%) in the control arm and 19 (17.8%) in the reward arm. At month 12, 38 participants were lost to follow-up; 17 (31.5%) in the control arm and 21 (19.6%) in the reward arm.	
69	**Fisher 2011**	UNCLEAR	UNCLEAR	LOW	UNCLEAR	UNCLEAR
	Assessment justification:	NS	NS	Weight objectively measured. Total and regional body composition, including total fat mass, percent body fat, leg fat mass, and lean body mass were measured by dual-energy X-ray absorptiometry	NS	The weight loss programme varied in length based on when weight loss target was achieved. However, weight taken when weight loss target achieved, at approximately 6mths. Subjects were evaluated in the overweight state (prior to any intervention). Weight was stabilized for 4 weeks through dietary control. All testing was conducted following the weight stabilization period, and in the follicular phase of the menstrual cycle. During the weight stabilization period, body weights were measured three to five times per week. Fisher et al. Page 2 Obesity (Silver Spring). Author manuscript; available in PMC 2011 June 1 NIH-PA Author Manuscript NIH-PA Author Manuscript NIH-PA Author Manuscript General Clinical Research

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
						Center (GCRC) at UAB. A macronutrient-controlled diet was provided during the final 2 weeks of weight maintenance.
70	**Foley 2016**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"Randomization occurred at the baseline visit, using a computer-based algorithm. The randomization algorithm allocated participants equally (1:1) across treatment arms, after accounting for CHC, gender and ethnicity (Hispanic vs. non-Hispanic) in order to ensure the equal representation of these characteristics across arms."	NS	Weight measured objectively.	Less than 50% attrition at 12-month follow-up.	
71	**Foreyt 1993**	LOW	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	Random number table	NS	Weight measured objectively.	86/127 at 12mths (in 3 intervention groups (not control)) LOW 61/127 at 2 years HIGH (61/86 that completed to 12mths) In each treatment condition, about one third of subjects dropped out of the study before the one-year assessment; 13 from the diet-only, 13 from the exercise-only, and 15 from the exercise-plus-diet groups. The differential dropout rate across treatment groups was not significant, ~z = .34, p = .84. At baseline, dropouts were not significantly heavier than those who were available for one-year follow-up, 103.3 kg versus 96.3 kg, respectively, F(1,121) = 2.49, p = .12.	
72	**Forman 2013**	LOW	LOW	LOW	LOW	
	Assessment justification:	"Participants were assigned to SBT or ABT via computer-based random allocation, with blocking by baseline BMI."	Computer-based random allocation used.	Weight objectively measured.	SBT 37/54 ABT 50/74	
73	**Forman 2016**	UNCLEAR	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Once enrolled, participants were randomly assigned to SBT (n 5 90) or ABT (n 5 100). Randomization was stratified by gender and ethnicity."	NS	Weight measured objectively.	End of treatment: SBT 70/90; ABT 79/100 "Treatment attendance (with inclusion of makeup sessions) was in excess of 84% of expected sessions, and there were no differences between the two treatments in terms of the average number of sessions attended (MABT = 21.26 +/- 5.85, MSBT = 20.88 +/- 5.46; t(189) =-0.46, P = 0.65). Overall, 84.2% of the ABT participants and 85.6% of SBT participants attended the majority (i.e., 18 or more) of the 25 scheduled groups (X2 5 0.07, df = 1, P = 0.79). A total of 142 participants (74%) completed the mid-treatment assessment and 149 participants (78%) completed the post-treatment assessment." Retention rate: 24-month follow-up: SBT: 65/90*100 = 72.2%; ABT: 78/100*100 = 78% 36-month follow-up: SBT: 61/90*100 = 67.7%; ABT: 74/100*100 = 74%	
74	**Foster-Schubert 2012**	LOW	LOW	LOW	LOW	UNCLEAR

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"The random assignment was generated by a computerized program, stratified according to BMI (<30 kg/m2 or ≥30 kg/m2) and participants' self-reported race/ethnicity (non-Hispanic white, black, or other). In addition, to achieve a proportionally smaller number of women assigned to the control group, a permuted blocks randomization with blocks of four was used, wherein the control assignment was randomly eliminated from each block with a probability of ~1 in 4." Blocked-randomisation. (Permuted-block randomization (ratio 0.75 : 1 : 1 : 1) to assign a proportionally smaller number of women to the control group.)	Central computerised allocation.	Weight measured objectively.	91% followed up at 12m overall: 92% D+E, 89% D only, 91% E only, 92% usual care. 2 unavoidable losses (<1%); 8% missing; 1% medical reason.	Control group received intervention at 12m, unclear if they knew in advance.
75	**Freitas 2017**	LOW	LOW	HIGH	UNCLEAR	
	Assessment justification:	"Randomization schedule was computer-generated and implemented by an investigator blinded to the recruitment, evaluation and treatment of the participants."	" Each patient's allocation was concealed using sequential numbering and then sealed and placed in opaque envelopes..."	"The nutritionist and psychologist, as well as the outcome assessors, were blinded throughout the duration of the study." "The long-term effect (6 and 12 mo after randomization) was evaluated by obtaining body weight from patients' medical records."	No information given on n followed up at 6- and 12-months.	
76	**Fuller 2012**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	The randomisation process was completed by the study database (Filemaker Pro), upon entry of the participant's initials and fulfilment of trial requirements.	NS	Weight objectively measured.	22/35 Korean group and 28/35 Western group completed the study.	
77	**Gold 2007**	UNCLEAR	UNCLEAR	LOW	LOW	
		NS	NS	Weight was objectively measured.	71% followed up at 12m; 65% intervention, 77% control. 2% unavoidable; 25% missing; 2% medical.	
78	**Goodwin 2014**	LOW	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Random assignment was performed centrally by the Ontario Clinical Oncology Group, and a computer-generated block randomization scheme with blocks of various size was used."	NS	Weight objectively measured.	"Six patients in the mail-based intervention and seven in the LI arm did not complete the 24-month intervention period because of a primary outcome event (new disease, metastases, death); of the remaining patients, 14 (8.7%) and 16 (9.9%), respectively, withdrew (including patients who transferred care, those who were lost to follow-up, or those with noncompliance). Month-24 weight measurements were available from 264 (90.1%) of 293 participants still on the study."	
79	**Gorin 2013**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"Participants were randomly assigned to one of two 18-month behavioral weight-control programs..." No further information provided.	NS	Weight measured objectively.	Standard: 96/99 at 6mths; 86/99 at 18mths Enhanced: 102/102 at 6mths; 99/102 at 18mths	
80	**Green 2015**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	Minimisation. Participants were assigned to intervention or usual-care using a stratified blocked (on gender and BMI [27–34.9 and ≥35]) randomization procedure, within sites. We used computer and paper-based randomization systems; sequence generated by author NAP.	Staff not involved in data collection informed participants about randomization. Others were blinded to assignment, and participants were routinely reminded not to discuss assignment during assessments. Usual care participants were free to pursue alternative weight-loss efforts.	Blinded staff collected data at all study periods, including scale-measured weights.	Follow-up rates were 90.5% of participants at 6 months (n = 181), 85% at 1 year (n = 170), and 81.5% (n = 164) at 2 years (83.2% if 3 deaths are removed). We found no significant differences in attrition between study arms at any assessment point.	
81	**Grilo 2011**	LOW	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Randomization to treatment was performed without any restriction or stratification, using a computer-generated sequence."	"Randomization was determined after formal acceptance into the study and completion of all assessments. Randomization assignment was kept from participants until the start of treatment."	"Weight and height were measured at baseline and again immediately prior to beginning treatment using a trade-legal medical balance-beam scale. Weight was measured bi-weekly throughout treatment, at post-treatment, and at 6- and 12-month follow-ups."	Retention rate: Post-intervention: CBT: 75.6%; BWL: 68.9%; CBT+BWL: 60.0% 6-Months: CBT: 82.2%; BWL: 86.7%; CBT+BWL: 85.7% 12-Months: CBT: 82.2%; BWL: 82.2%; CBT+BWL: 71.4% "Completion rates, which did not differ statistically, were: 76% (N=34) for CBT, 69% (N=31) for BWL, and 60% (N=21) for CBT+BWL. Follow-up (6-and 12-month) assessments were obtained for over 80% of patients (Figure 1)."	
82	**Grilo 2014**	LOW	LOW	LOW	LOW	
	Assessment justification:	"Randomization to treatment assignment occurred in the exact order following completion of all assessments and medical approval and was performed independently from the investigators by a research-pharmacist at a separate Yale facility using a computer-generated schedule generated by a biostatistician. Participants were randomly assigned with stratification by BED status."	"Randomization to treatment assignment occurred in the exact order following completion of all assessments and medical approval and was performed independently from the investigators by a research-pharmacist at a separate Yale facility using a computer-generated schedule generated by a biostatistician. Participants were randomly assigned with stratification by BED status."	"The assessments were performed independently by doctoral research evaluators at our research clinic who were blinded to both the medication status and to whether participants received the shCBT."	"Post-treatment assessments were obtained for 84% of patients and follow-up assessments were obtained for 83% of patients at the 6-month follow-up and for 86% of patients at the 12-month follow-up." Retention rates: Post-treatment: Placebo: 20/27*100=74.1%; Placebo/CBTsh: 22/25*100 = 88% 6-Months: Placebo: 22/27*100=81.4%;	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
					Placebo/CBTsh: 23/25*100 = 92% 12-Months: Placebo: 19/27*100=70.4%; Placebo/CBTsh: 21/25*100 = 84%	
83	**Hageman 2017**	LOW	LOW	LOW	LOW	
	Assessment justification:	"A randomization schedule was created by the project statistician using online software to generate sequences of pseudorandom numbers (http://www.randomizer.org/form.htm). To keep accrual relatively even during rolling enrollment, a random ordering of block sizes 12, 15, and 18 was used. The project statistician did not have any contact with the women during the trial."	'At completion of the first baseline visit, nurses delivered a sealed confidential envelope to each woman that contained an identification number and a password for logging into the intervention website and advised women to keep their login information materials confidential.' 'Upon completion of baseline assessment visit two, each woman received an electronic notice on her intervention web account of her group assignment. The women were instructed to not share this with others, including the research nurses who conducted the assessments, who were blinded to web intervention content as well.'	Hageman 2011: 'The Tanita Model [TBF-215, Tanita Corporation of America, Inc., 2625 S. Clearbrook Dr., Arlington Heights, IL 60005-9824] will be used to measure height, weight and percent body fat following the manufacturer's instructions. Women will be asked to fast within 4 hours of the test, not exercise intensively within 12 hours of the test, avoid alcohol 48 hours before testing and to void the bladder within 30 minutes prior to the test, as this bioelectrical impedance analysis system measure is sensitive to hydration status .'	WO: 76/101 WD: 67/100 WE: 73/ 100	
84	**Hakala 1993**	UNCLEAR	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	'randomly divided'	NS	Weight objectively measured.	Group 28/30 at 2 yrs., 28/30 at 5yrs. Individual 27/28 at 2 yrs., 25/28 at 5yrs. 'Adherence 97% at 2 yrs., 88% at 5 years'	
85	**Hanson 1976**	UNCLEAR	UNCLEAR	UNCLEAR	HIGH	
	Assessment justification:	NS	NS	NS	Attrition greater than 25% at 5-month follow-up and approximately 50% at 1-year follow-up.	
86	**Hardcastle 2013**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"A statistician, who had no contact with the participants, was asked to develop a randomisation protocol such that participants were allocated to the MI intervention and minimal intervention groups by a ratio of 7:5. The randomisation protocol was stratified by gender and age based on patient records. The patients within each stratum were divided into blocks of 12 and then randomly allocated to the MI intervention and minimal intervention groups using computer generated random numbers by the predetermined ratio."	NS	"The practice nurse was blind to the treatment allocated to each patient at baseline and subsequent assessments."	At 18 months, 41% from the intervention group and 31% of the control group were lost to follow-up.	
87	**Harrigan 2016**	LOW	LOW	HIGH	HIGH	
	Assessment justification:	"Permuted-block randomization with random block size was performed by the study biostatistician"	"...blinded study staff using unmarked envelopes."	"Height (using a stadiometer) and weight were measured at baseline and 6 months." "... self-reported weight from baseline to 12 month"	Because there were 15 (15%) individuals who were missing body weight measurements at 6 months, multiple imputation with data augmentation under the multivariate normal model was conducted using SAS PROC MI, as described by Allison.15 The final results were consistent with the results without multiple imputations. Completed 12-Months: Usual	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
					care: N = 19 (58%); Telephone: N = 15 (44%); In-Person: N = 22 (67%)	
88	**Harris 2017**	LOW	LOW	LOW	LOW	
	Assessment justification:	"The researcher will telephone an interactive voice response system (IVRS), hosted by the Robertson Centre for Biostatistics, University of Glasgow. The researcher will register each participant in the study, by giving the participants' cluster number, the number of individuals within the cluster, level of intellectual disabilities and presence of Down Syndrome. After registering each participant, the system will notify the principal investigator of the allocation (TAKE 5 intervention or WWToo intervention)."	"After registering each participant, the system will notify the principal investigator of the allocation (TAKE 5 intervention or WWToo intervention)."	"A researcher (L. H.) who was blind to study group allocation was responsible for collecting all outcome measures, completed at baseline, at 6 and 12 months." "Weight in kg was measured to the nearest 100 g, using SECA877 scales (SE approval class III; SECA)."	WWToo had no lost to follow-up at 12 months; TAKE 5 intervention group had 2 participants lost to follow-up at 12 months.	
89	**Hunt 2014**	LOW	LOW	LOW	LOW	HIGH
	Assessment justification:	"After baseline measurement, the randomisation sequence was generated by the Tayside Clinical Trials Unit (TCTU) statistician (with no day to day role in the study at this point) with SAS (version 9.2), blocked (block size between two and nine dependent on how many participants were recruited at a club), and stratified by club."	"The allocation sequence was sent in a password protected file to a database manager (not part of the research team) who assigned individuals to each group."	Weight measured objectively.	Comparison (control): 347/374 at 12-weeks; 355/374 at 12-months. Intervention: 330/374 at 12-weeks; 333/374 at 12-months	12 month wait-list control.

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
90	**Huseinovic 2016**	LOW	LOW	LOW	LOW	
	Assessment justification:	"...simple randomization procedure that used numbered and sealed envelopes generated through a random number table prepared by the project coordinator."	Refer to 'Random sequence generation (selection bias)'.	"All study measures and administration of intervention were completed by 2 dietitians at the primary health care clinics. Blinding of the study dietitians was not possible..."	D Group: Baseline n=54; 12-wk: n=47; 1-year: n=44 C Group: Baseline n=56; 12-wk n=53; 1-year: n=45	
91	**Irwin 2003**	LOW	LOW	LOW	LOW	
	Assessment justification:	"Randomization was performed by random number generation…" "Randomization was stratified by BMI (<27.5 vs >27.5) to ensure equal numbers of heavier and lighter women in each study group."	"…group assignment was placed in a sealed envelope…"	Weight measured objectively.	Less than 50% attrition at 12-months follow-up.	
92	**Jackson 1982**	UNCLEAR	UNCLEAR	LOW	UNCLEAR	
	Assessment justification:	NS	NS	"Both groups were weighed weekly by a teacher and a teacher's assistant to ensure reliability of measurements."	Authors do not report that any participants were lost to follow-up.	
93	**Jackson 2018**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"The randomization scheme have been generated by using the Web site Randomization.com (www. randomization.com)."	NS	" Assessments were conducted by inpatient clinic staff and graduate psychology trainees who were blinded to participant treatment condition assignment."	"No data were missing for any of the participants on any of the outcome measures at any of the measurement points."	
94	**Jakicic 2011**	LOW	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Randomization was performed by the study statistician using a computer program with randomization blocked by gender."	NS	"Body weight was assessed using a calibrated balance-beam scale to the nearest 0.1kg (0.25 pounds) with the subject clothed in a cloth hospital gown."	"There was no significant difference in attrition rates between groups based on $\chi 2$ analysis." At the 18-month assessment 82.1% from Self-help group, 72.4% from the Moderate PA group and 81.8% from the High PA group contributed to assessment data.	
95	**Jakicic 2015**	LOW	LOW	LOW	LOW	
	Assessment justification:	"The randomization sequence was generated by the study biostatistician (W.L.). Randomization was stratified based on gender (male or female), using a computer generated allocation, and only occurred after the participant had successfully completed baseline assessments."	Computer generated allocation.	Weight measured objectively.	Retention rate: Intervention end: SBWP: 97.1%; ADOPT: 90.1% 6-Month: SBWP: 78.9%; ADOPT: 73.2% 12-Month: SBWP: 60.6%; ADOPT: 62% 18-Month: SBWP: 66.2%; ADOPT: 69%	
96	**Jebb 2011**	LOW	LOW	LOW	LOW	
		"The randomisation sequence was computer generated with Stata (version 9.0) by APM and built into the database by the data manager, who was independent from the study team, and was stratified by country, sex, and diabetes status, with an upper limit of 50% of participants with diabetes."	"Treatment allocation was concealed by use of an online database (Filemaker Pro 9, version 3)."	"In the UK and Australia, bodyweight (in light clothes without shoes) and fat mass were measured with a Tanita BC-418 segmental body composition analyser (Tanita Corporation of America, Arlington Heights, IL, USA). In Germany, weight was measured in GP practices with standard scales, and fat mass was measured at the research centre with the Tanita BC-418."	12-month retention rate: Standard care: 214/395*100 = 54.2% Commercial programme: 230/377*100 = 61% 18-month retention rate: Standard care: 115/395*100 = 29.1% Commercial programme: 121/377*100 =32.1% 24-month retention rate: Standard care: 98/395*100 =	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
				"All participants who did not complete the 24-month visit but had not formally withdrawn from the study were asked to provide self-reported weights in a telephone follow-up survey (Australia and the UK) or a postal survey (Germany)." Majority was objectively reported.	24.8% Commercial programme: 105/377*100 = 27.9%	
97	**Jebb 2017**	LOW	LOW	LOW	LOW	
	Assessment justification:	"An independent statistician produced a computer generated randomisation list with 1:1 allocation using stratified block randomisation"	"After the nurse had confirmed eligibility, participants were enrolled in the study and the allocation was revealed using an online randomisation programme to ensure full allocation concealment. "	Weight was objectively measured.	95/140 UC and 104/138 TDR followed up at 12 months.	
98	**Jeffery 1995**	UNCLEAR	UNCLEAR	LOW	LOW	UNCLEAR
	Assessment justification:	“Study participants were randomized within centre and sex to one of five treatment groups.” No further information given.	NS	Weight measured objectively.	Retention rates for total sample: 6-month follow-up: 89% of total sample 12-month follow-up: 87% of total sample 18-month follow-up: 85% of total sample "There was no differences among treatment groups at any individual follow-up point in the percentage of participants completing assessments. However, the percentage of participants who completed all three follow-ups differed by treatment group: control group (70%), SBT (65%), SBT + FP (90%), SBT + I (85%), and SBT + FP +I (83%)."	Weight data reported in text does not seem to match that presented in the figure for the 30-month data for the SBT group.

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
					30 month follow-up: 88% of total sample "There were no differences among treatment groups, centers or sex in the percent of participants lost to follow-up."	
99	**Jeffery 2003**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"randomly assigned"	NS	Weight measured objectively.	"Retention of study participants was good over 18 mo of followup in both study conditions. Expressed as a percentage of randomly assigned subjects who returned for follow-up visits, retention rates at 6, 12, and 18 mo of the study were 90%, 82% and 87% in the SBT group and 94%, 79% and 80% in the HPA treatment group, respectively." " At 30 mo, retention of study participants as a proportion of those randomly assigned was 79% (74 of 93) in the SBT group and 77% (84 of 109) in the HPA group."	
100	**Jenkins 2017**	LOW	LOW	LOW	HIGH	
	Assessment justification:	"A statistician not involved in the day-to-day operation of the interventions created blocks of random assignments (n=39)."	"Assignments were sealed in ordered, numbered, opaque envelopes. Upon consent and eligibility confirmation for the individual or household, the coordinator opened each envelope in sequence and assigned the participant to the treatment group it contained."	"Completed questionnaires, fasting blood, anthropometric, and blood pressure measurements were obtained at baseline and at subsequent clinic attendances at 6 and 18 months at St. Michael's Hospital."	6-month retention of 91% in the 2 food delivery arms versus 67% when no food was provided. When no food was provided, groups which had received a prior provision of food resulted at 18 months in an 81% retention versus 57% where no food had been provided.	
101	**John 2011**	LOW	UNCLEAR	LOW	LOW	HIGH

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Participants were randomized evenly to participate in a weight-monitoring program (control condition) or the same program with one of two financial incentive plans (deposit contract condition, hereafter referred to as DC) using a block size of six, with stratification based on sex and age (30–49 vs. 50–70)."	NS	"At the end of each month, participants received $20 for returning to the clinic to be weighed."	32 weeks follow-up: "At the primary outcome point, ten percent of participants were lost to follow-up (C = 1/22, DC1 = 1/22, DC2 = 4/22)" 68 week follow-up: Sixty-five percent of participants [43/66; Control = 14/22*100 = 63.6%; DC = 29/44* 100 = 65.9%] returned to the clinic for a follow-up weigh-in approximately 36 weeks after the last participant had completed the 32-week intervention.	Study involved randomisation to 3 arms: (1) weight-monitoring program (control condition); (2) weight-monitoring program plus deposit contract condition 1; (3) Weight-monitoring program plus deposit contract condition 2. They differed as follows: "For half of the DC participants, the first 24 weeks of the study were described, in both written and verbal communication to participants, as the 'weight loss period;' the final 8 weeks (i.e., weeks 25–32) were framed as the 'maintenance of weight loss period' (DC1). The second incentive condition was the same except that there was no explicit distinction between the two periods of the study (DC2), which was also the case in the control condition." The two deposit contract condition groups have been extracted as 1 group as only reported as such Varying follow-up depending on time of recruitment: "To assess longer term maintenance following the 32-week intervention, participants returned for a weigh-in approximately 36 weeks after the last participant had completed the 32-week intervention."; "Recruitment began in June 2008 and ended in September 2008; follow-up ended in January 2010."
102	**Jolly 2011**	LOW	LOW	HIGH	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"The randomisation sequence was prepared by an independent statistician..."	"An independent statistician prepared two separate randomisation sequences, and, to ensure blinding, the allocations were placed in opaque, consecutively numbered envelopes, which the call centre staff used in order. The block sizes were determined to achieve one to one randomisation across groups, except for the two primary care arms, for which spaces were limited and allocation was in a ratio of 1 to 0.7 compared with the other groups."	"When participants attend their first weight-loss session in the six interventions, the leader/counsellor measures participants' height and weight. Scales are validated by the research team using standardised weights, unless evidence of recent independent validation is provided. The commercial providers often use self-reported height, so this will be re-measured at follow-up by the blinded assessor. People in the comparator control group and people who are randomised but who do not attend their allocated programme are contacted and a researcher makes an appointment to measure height and weight. During the 12-week programmes the service providers record weights on each visit. The comparator group are weighed at baseline only." "At three months after programme start (programme end) the service providers weigh participants. Participants who are no longer attending their allocated programme are contacted and offered follow-up at home or another convenient location. If participants decline to be followed-up in person, they are asked to provide a self-reported weight, which is recorded as self-report. " Flow of participants through trial figure highlights that over a	"At programme end, 658 (88.9%) participants were followed up; 522 (70.5%) were followed up at one year (fig 1)." Attrition rate at intervention end (3 months): Weight watches: 95%; slimming world: 93%; Rosemary Conley: 88%; NHS Size down: 87%; GP: 82.6%; Pharmacy: 82.3%; Choice: 95%; Comparator: 83% Weight watches: 82%; slimming world: 62%; Rosemary Conley: 74%; NHS Size down: 66%; GP: 65.7%; Pharmacy: 58.6%; Choice: 79%; Comparator: 72%	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
				third of weight measures were self-reported.		
103	**Jones 1986**	UNCLEAR	UNCLEAR	UNCLEAR	HIGH	
	Assessment justification:	NS	NS	"On the first appointment height and weight were measured, using a beam balance scale"; No information on how weight was measured at follow-up time points.	"Of 160 subjects attending an initial interview, only 69 (43%) completed treatment; of these, 58 were seen at the 1-year follow-up." (36.3%)	
104	**Jones 1999**	UNCLEAR	UNCLEAR	UNCLEAR	LOW	
	Assessment justification:	"Patients were randomized in a single blind fashion to either the weight loss intervention group or the control group. Randomization was done in a blocked fashion to ensure that equal numbers of the three HOT treatment groups were in both the weight loss intervention group and the control group."	NS	"Weights for both groups were measured at 6-month intervals during follow-up required by the HOT protocol."	"Four patients in the weight loss group and five patients in the control group did not complete the study and were excluded from the data analysis."	
105	**Katula 2013**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Eligible participants were randomly assigned, if equal probability, to either the lifestyle intervention or the enhanced usual care arm using a web-based data management system that verifies eligibility."	Refer to 'Random sequence generation (selection bias)'.	"Assessments are performed at 6 month intervals (baseline, 6-, 12-, 18- and 24-months post-randomization) at the GCRC. Psychosocial measures are self-administered and remaining measures are completed by trained study staff or clinic staff."	6-month assessment visit: UC: 141 attended (94%); LWL: 139 attended (92%); 12-month assessment visit: UC: 138 attended (92%); LWL: 135 attended (89%); 18-month assessment visit: UC: 132 attended (88%); LWL: 125 attended (83%); 24-month assessment visit: UC: 134 attended (89%)L LWL: 127 attended (84%)	
106	**Katzer 2008**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"Randomization was stratified by age and BMI and performed independently by a statistician."	NS	Weight objectively measured.	"By the end of the initial 10-week intervention, 53 participants had withdrawn from the study (24%), and an additional 28 participants (overall dropout rate=37%) had withdrawn by the 12-month follow-up. Dropout rates were similar in the three treatments (data not shown)."	
107	**Keogh 2014**	LOW	LOW	LOW	HIGH	
	Assessment justification:	"Participants were divided into two groups according to age and BMI and allocated 1:1 to treatments using computerized random number generation." "The two groups were randomized using Microsoft Excel random number after being blocked according to age and BMI." Participants will be randomized using the minimization method - (Trial registration ACTRN12612000197831)	Sealed envelopes containing the diet allocation will be used (Trial registration ACTRN12612000197831)	Height and weight were measured at the initial visit and BMI was calculated (weight [kg]/height [m2]). Weight was measured at all visits (2 weeks apart for 8 weeks and at 12 month). Subjects were asked to remove shoes prior to both measurements. Although subjects were not given pre-measurement instructions regarding fluid and	"…high drop-out rate experienced early in the study may have limited our ability to detect a statistical difference. Forty percent of the drop-outs occurred between baseline and week 8, thereafter only 8 of 44, i.e. 20% which is the usual attrition seen in such studies." Intermittent dieting 19/39 continuous dieting 17/36	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
				food intake, effort was made to measure weight at approximately the same time each visit.		
108	**Keranen 2009**	LOW	LOW	LOW	LOW	
	Assessment justification:	Simple randomization without blocking (Fig. 2). Random sampling numbers	"The random sampling numbers were unknown to any of the investigators, study nurses or nutritionists and were contained in a set of sealed envelopes, each bearing on the outside only the number. After acceptance of a patient by the physician, the appropriate numbered envelope was opened by the study nurse."	Weight measured objectively.	Short counseling: 36/47 received intervention; 29/47 at follow up LOW Intensive counseling: 26/35 received intervention; 20/35 at follow up LOW	
109	**King 1989**	LOW	LOW	LOW	LOW	HIGH
	Assessment justification:	The subjects were randomly assigned within each cohort by selecting one envelope for a set of sealed envelopes.	Sealed envelopes.	"Subjects' height and weight were measured using a balance-beam scale, with subjects wearing normal indoor clothing (without shoes). Subjects were weighed at the start and at months 6 and 12 of year 2 by staff members blind to each subject's year-2 condition assignment."	"Of the 51 subjects initially randomized to weight loss through energy restriction during year 1, 44 (86.3%) participated in the year-2 maintenance study. Of the 52 subjects initially randomized to weight loss through exercise during year 1,46 (88.5%) participated in the year-2 maintenance study." "Of the 90 subjects participating in the maintenance study, complete year-2 total body weight data were obtained for 36 (81.8%) of 44 dieters and 36 (78.3%) of 46 exercisers."	The study randomised to three groups 1. Diet, 2. exercise or 3. control. At the end of the 1-year intervention, participants in the diet group and exercise group were re-randomised within each condition to either a maintenance condition or control condition, forming four groups for the follow-up period (the original control group was not followed up after intervention end.) Data reported was broken down into these 4 groups (formed following re-randomisation after intervention end), however we have extracted

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
						and combined data for the original 2 groups (the control group data was not extracted as this group was not followed up after intervention end).
110	**Kingsley 1977**	UNCLEAR	UNCLEAR	LOW	LOW	HIGH
	Assessment justification:	"Subjects were randomly assigned from stratified blocks of percentage overweight to one of three treatment groups on the basis of within-sample matching with an n of 26 in each group." No further information given.	NS	Weight measured objectively.	Social pressure: 20/26 Group behavioural: 23/26 Individual behavioural: 22/26	Social support intervention is offensive and would not be permitted today. Affects generalisability and validity of study results.
111	**Knauper 2018**	LOW	UNCLEAR	LOW	HIGH	
	Assessment justification:	"To randomize participants to the two intervention arms, a randomization sheet generated by a random digit generator is used (www.randomizer.org)."	"Throughout the recruitment process, the list of randomized numbers will be assigned to participants by the research coordinator in sequential order from 1 to 154 in the order in which participants completes the baseline CHIP appointment."	"However, the staff assessing the outcome variables (e.g. weight, EST) is blind to which intervention the participants were assigned."	44.9% of the Enhanced DPP group attended the 12-month follow-up versus 70% of the standard DPP arm. 24-Month follow-up: Enhanced DPP: 51/107*100 = 47.7%; Standard DPP: 51/101*100 = 50.5%	
112	**Kuller 2012**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	Block randomisation. Randomization sequence designed by independent statistician'	"…allocation via sealed, numbered envelopes opened sequentially."	Weight, height, and waist circumference were measured at clinic visits at baseline, 18 months, and 30 months. Standard laboratory measurements included total cholesterol, HDL-C, triglycerides, insulin, and glucose after 12-hour fasting samples.	83% followed up at 18m overall: 82% intervention, 84% control. Reasons for attrition NS.	
113	**Kumanyika 2012**	LOW	LOW	LOW	LOW	
	Assessment justification:	"Eligible participants stratified by gender and age (~35 or over 35 year) were randomized to one of two treatment groups in a 1:1 ratio with randomly permuted blocks (block sizes of 2-6)."	"Random assignments were concealed from both participant and study staff prior to implementation."	Weight objectively measured.	Descriptive analysis: Basic Program: 98/137 at 12mths Basic Plus Program: 89/124 at 12mths Weight change (>= 1 wt measurement after baseline) Basic program 133/137 at 12mths Basic plus program 124/124 at 12mths	
114	**Leahey 2014**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	With a random number generator, we assigned participants by using a 1:2:2 randomization scheme.	NS	Weight objectively measured.	Less than 50% attrition at 6- and 12-month follow-up.	
115	**Leahey 2015**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"Approximately 50% of participants were the only participant within their team, but to avoid contamination, when multiple individuals were recruited from the same SURI team they were assigned as a single unit within the simple randomization procedure to ensure that all team members were randomized to the same study arm. The study statistician completed all randomization procedures."	NS	"Weight was measured to the 0.1 kg using a digital scale and height was measured at baseline using a wallmounted stadiometer." "Assessments were conducted by blinded staff."	Drop out at 12-months: SI: 76/91*100 = 86%; SII: 84/89*100 = 94%; SIG: 82/88*100 = 93%	
116	**Lejeune 2003**	UNCLEAR	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	NS	NS	Weight objectively measured.	Retention rate: Week 13: D Group: 85%; DE group: 100% Week 53: D Group: 75%; DE group: 70%	
117	**Ley 2004**	HIGH	UNCLEAR	LOW	LOW	
	Assessment justification:	"They were then individually randomised to either an intervention group that was asked to consume a reduced-fat (RF), but otherwise ad libitum diet, or a control diet (CD) group that continued with their usual diet. An exception to this individual randomisation was made at one work-site where all six participants were Pacific Island's women who worked closely together. They were all assigned to the RF group because individual randomisation was impractical. All those found to have diabetes on re-testing were referred to their general practitioners for management, but were still randomised for the study." Broken randomisation.	All those found to have diabetes on re-testing were referred to their general practitioners for management but were still randomised for the study.	Weight objectively measured.	less than 50% attrition at 1 - and 5-year follow-up.	
118	**Li 2016**	LOW	UNCLEAR	LOW	LOW	UNCLEAR

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"After a one-week run-in period, participants were randomly allocated to one of the following four groups by computer-generated random numbers."	NS	"All measurements were conducted with standard procedures by the same clinical staff in the third hospital of Inner Mongolia medical college, who were blinded to the group allocation."	Percentage of participants retained at follow-up at 1 year: Usual care: 98.3%; Diet: 96.2%; 50g oats: 96.3%; 94.9%; "Eleven patients dropped out during the 1-year follow-up due to personal reasons with no difference in drop-out rates among the four groups (p = 0.774)."	Unclear whether groups were stratified by BMI in parent study. "A subgroup of 298 subjects, meeting the Chinese criteria of overweight (body mass index ≥ 24 kg/m2), was selected from 445 adult patients with T2DM, who had participated in the 30-day centralized management of a dietary program and the 1-year free-living follow-up in Baotou, China."
119	**Li 2005**	LOW	UNCLEAR	LOW	LOW	HIGH
	Assessment justification:	"A random, permuted, block design was utilized for placement of subjects into the two treatment groups."	NS	Weight measured objectively.	Retention rate: Baseline: MR: 49/52*100 = 94.2%; IDP: 44/52*100 = 84.6% 6-months: MR: 46/52*100 = 88.5%; IDP: 36/52*100 = 69.2% 12-months: MR: 42/52*100 = 80.8%; IDP: 35/52*100 = 67.2%	MR group continued to received the meal replacements for the 12 month study duration at lower volume. "For the first 5 days of the study, subjects randomized into the MR group replaced three meals per day with a soy MR (Slim Fast Food Company, Inc. West Palm Beach, FL 33401, USA). They also were instructed to add fruits and vegetables to their dietary intake. Thereafter, the MR group replaced two meals with the soy MR with continuing use of fruits and vegetables as snacks, plus a sensible third meal for three additional months. After the 3 months, subjects in the MR group were instructed to replace one to two meals per day with the soy shakes and consume correspondingly one to two sensible meals for the duration of the study."

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
120	**Lindstrom 2003**	LOW	UNCLEAR	LOW	LOW	HIGH
	Assessment justification:	A randomization list was used	The nurses scheduling visits were blinded to randomisation. Study staff were not blinded.	Weight objectively measured.	At 3 years: 203/ 257 Control 231/ 265 Intervention At 4 years: 170/257 Control 198/265 Intervention From 5 years: 166/257 Control 200/265 Intervention	After the decision to end the intervention period, the intervention was continued until each participant's next scheduled annual clinic visit. The end date thus varied from March 2000 to December 2001. After active intervention (median 4 years, range 1–6 years), participants still free of diabetes and willing to continue their participation (from year 6 - 200 in the intervention group and 166 in the control group) were further followed until diabetes diagnosis, dropout or the end of 2009, with a median total follow-up of 9 years and a time span of 13 years from baseline.
121	**Liss 2016**	LOW	LOW	LOW	LOW	
	Assessment justification:	"Prior to the study enrollment phase, randomization lists were generated by a senior statistician using SAS, version 9.2 (Cary, NC). Lists were created using 1-to-1 allocation, with blocks of 4, stratified by Y study site and race (non-Hispanic White; African-American; Other)."	"Randomization blocks were implemented by the study programmer (AC) and pre-loaded into a back-end field of a Microsoft Access (Redmond, WA) database table that was not available to study RAs. After the study RA collected data required for randomization at each participant's screening/enrollment visit, she clicked a button in Access to execute the randomization."	Weight objectively measured.	At 12 months, 78% of participants from the GLI group and 76% from the standard care group returned for outcome assessment.	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
122	**Little 2016**	LOW	LOW	UNCLEAR	LOW	
	Assessment justification:	"Upon completion of baseline questionnaires, the website automatically randomly assigned patients (1:1:1) via computer-generated random numbers…"	"Participants and investigators were masked to group allocation at the point of randomisaton…"	"Weight loss was measured with participants lightly clothed without shoes, at the same time every day when possible, with automated digital scales (Tanita Europe BV, Amsterdam, the Netherlands)." "When a blinded weight measurement could not be obtained, we used practice nurses' recorded weights, and when that was not possible, we used participants' reported weights."	Weight loss averaged over 12 months was recorded in 666 (81%) participants." Control: 136/279 weight at 6mths (HIGH); 227/279 weight at 12mths (LOW). Power + face to face: 148/269 wt at 6mths (LOW); 221/269 wt at 12mths (LOW). Power + remote: 155/270 wt at 6mths (LOW); 218/270 wt at 12mths (LOW).	
123	**Long 1983**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	"Patients were weighted in private..."	"At one year follow-up four treated subjects were lost and one was excluded because of a starvation period in hospital. Analysis of follow up data involved a total n of 23 (PD=9; ID=7; DD=7)."	
124	**Lowe 2018**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	Simple randomization via a table of random numbers was used to evenly assign participants to 1 of 3 conditions:	NS	Weight measured objectively.	Less than 50% attrition at 36-month follow-up.	
125	**Ma 2015**	LOW	LOW	LOW	LOW	
	Assessment justification:	We applied our published dynamic block randomization method to assure better than chance between-treatment balance across six prognostic factors (study site, age, sex, race/ethnicity, BMI, and ACQ score). The method automatically ensures allocation concealment. Participants were randomly assigned to one of two treatment conditions	This randomization procedure not only minimizes imbalance for the chosen baseline covariates between treatment groups and correlated characteristics, but also ensures concealment of treatment allocation, with recruitment staff completely unable to influence	'Both groups given a weight scale.' 'Published protocols were used to obtain height (baseline only), weight, waist circumference, and blood pressure measurements.' Indicates weighed.	Control: 157/165 at 6mths; 147/165 at 12mths. Intervention: 154/165 at 6mths; 142/165 at 12mths.	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
			allocation. A designated research staff member who is not involved in follow-up data collection or data analysis will carry out randomization using a computerized program. (Ma 2010) The trial design precluded blinding participants or interventionists to treatment assignment; however, the investigators, Data and Safety Monitoring Board members, outcome assessors, and data analyst were masked throughout the trial. Ma 2015			
126	**Manning 1994**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	"Weight measurements were available irrespective of whether the patient completed the defined study group, scale weights were comparable throughout."	Less than 50% attrition at 12- and 48-month follow-up.	
127	**Manzoni 2016**	LOW	UNCLEAR	HIGH	HIGH	
	Assessment justification:	Authors only mention that the randomization scheme used for selecting the condition was generated by using the Web site www.randomization.com. However, no further information regarding the sequence generation is offered.	NS	Participants' data were obtained 1 week after the start of the inpatient program, during the last week of hospitalization, and at 1-year follow-up (by postal mail) (LOW). Data at follow-up were self-reported (HIGH).	Control 29/52 at follow up (55.7%) LOW CBT 38/54 at follow up (70%) LOW VR 46/57 at follow up (80.7%) LOW Between group HIGH	
128	**Marniemi 1990**	UNCLEAR	UNCLEAR	UNCLEAR	UNCLEAR	
	Assessment justification:	NS	NS	NS	All participant data used in the analysis but it's unclear how many were lost to follow-up.	
129	**Martin 2008**	UNCLEAR	UNCLEAR	LOW	HIGH	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Eight physicians practicing at two clinics were randomly assigned to provide one of the two treatment conditions, with four physicians providing personalized weight loss interventions and four providing standard care treatment (two intervention and two control at each clinic). Specifically, the randomization utilized clinic as a stratification variable, and the practices within each stratum were assigned to level of treatment under a balanced randomization. The basis of the randomization was the within-stratum ranks of a uniform (0,1) (pseudo-) random deviate generated for each participating physician. This resulted in a nested design, with participants recruited for the study being identified with the randomization assignment of their primary care physician. The purpose of using a nested design was to reduce the likelihood of treatment contamination in the control subjects, and for this reason, only the intervention physicians were trained in the use of the active treatment components."	NS	Trained personnel measured participants' weight and height at each assessment in the physician's office using a standardized protocol with a calibrated scale and stadiometer.	Completed 6mth programme 106/144 (or 106/137 as 7 become not eligible). At 6mths Standard care: 58/73 (or 58/69) LOW At 6 mths Intervention: 48/71 (or 48/68) LOW 'After accounting for medical exclusions and women lost to follow-up for other reasons, 105 completed the 6-month program, which resulted in an attrition rate of 27%. Another 42 participants discontinued the study by month 9, 51 discontinued by month 12, and 53 discontinued by month 18. Thus, the attrition rates at the 9-month, 12-month, and 18-month follow-up assessments were 29, 35, and 37%, respectively. Comparing between the two treatment groups, attrition was significantly greater (29%) in the intervention group immediately following the active treatment phase (i.e., month 6) as compared with standard care (12%), $P < 0.01$. Attrition was also greater among intervention participants (44%) at the final follow-up (i.e., month 18) as compared with standard care (23%), $P < 0.02$.'	
130	**Mefferd 2007**	UNCLEAR	UNCLEAR	LOW	LOW	UNCLEAR

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	NS	NS	"Anthropometric measurements (obtained at baseline and 16 weeks) included height and weight (measured without shoes)..."	A little over ten percent of the participants dropped out of the study during the 16 weeks under analysis in this report, yielding a final sample size of (n = 76) at 16 weeks. All nine dropouts had been assigned to the intervention group. Retention rate: 16-weeks: Control: 100%; Intervention: 47/56*100= 83.9% 12-Months: Control: 25/29*100 = 86%; Intervention: 44/56*100 = 78.6%	Wait-list control; unclear if control group participants were aware they were wait-listed.
131	**Melchart 2017**	LOW	LOW	LOW	LOW	
	Assessment justification:	"Randomization and allocation envelopes were prepared by an independent statistician at the Institute for Medical Statistics and Epidemiology at the Technical University of Munich."	"The trial physicians were instructed to open the sealed envelopes in a strictly sequential order of enrollment and to disclose the allocated treatment arm to the study participant."	"Body weight, height, waist circumference, blood pressure, and heart rates were measured by certified IHM coaches at each of the five examination visits. The teams were trained to perform the examinations in a standardized way (eg, subjects wearing light clothes and no shoes, with use of calibrated scales for measuring weight)."	"... Of 111 subjects who commenced with the IHM group, 17 (15.3%) prematurely discontinued the study, while in the UC group the dropout rate was 18.2% (10 of 55). The majority of dropouts left the study before the control visit at month 3, and this occurred in 10 of 17 cases in the IHM group and in 9 of 10 in the UC group." Participant dropouts: 3-Months: IHM: 90.8%; UC: 84%; 6-Months: IHM: 88.1%; UC: 82%; 9-Months: IHM: 85.3%; UC: 82% 12-Months: IHM: 84.4%; UC: 84%	
132	**Melin 2003**	UNCLEAR	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"The subjects were randomised into two groups according to gender, age and BMI: an intensively treated group (group 1) and a less intensively treated group (group 2.)" No further information given.	NS	Weight objectively measured. The laboratory tests were performed according to clinical routine. Blood glucose concentrations were determined by the glucose oxidase method.12 Serum insulin assays were performed by the Phadebas test (Pharmacia, Uppsala, Sweden).12 The blood pressure was measured in the right arm with a sphygmomanometer. The cuff size was 15.45 cm depending on the arm circumference. The recordings were made to the nearest 2 mmHg twice after 10 min supine rest, and the mean of the two measurements was used in the analyses.	Less intensive group: 19/21 at 6mths; 18/21 at 12mths; 15/21 at 24mths. More Intensive group: 19/22 at 6mths; 17/22 at 12mths; 17/22 at 24mths.	
133	**Menard 2005**	LOW	UNCLEAR	LOW	LOW	UNCLEAR
		"Using a blocked randomization (n = 4) stratified by hemoglobin A1c value (< 10% and ≥ 10%), patients were assigned by an independent person using a computer program to receive intensive multitherapy or usual care."	NS	"Fasting plasma glucose levels, hemoglobin A1c concentrations, blood pressure and serum lipoprotein levels were measured after a 12-hour, overnight fast at baseline and at 6, 12 and 18 months. Weight and height were measured, and body mass index (kg/m2) was calculated. Fasting plasma glucose levels were measured using a glucose oxidaze method. Cholesterol, high-density lipoprotein cholesterol, and triglyceride levels were measured using a colorimetric process (Johnson & Johnson Ortho-Clinical Diagnostics, Rochester, NY). Low-density lipoprotein cholesterol levels were calculated with the Friedewald	Control: 35/36 at 12mths; 29/36 at 18mths. intervention: 34/36 at 12mths; 32/36 at 18mths.	For ethical reasons, patients in the control group had protocol-driven laboratory tests, and they and their physicians received information about diabetes and its management as well as the results of these tests. Thus, control group patients may have received more aggressive treatment and attention than they normally would have.

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
				formula. Hemoglobin A1c concentrations were measured by high-performance liquid chromatography (Bio-Rad VARIANT, Hercules, Calif.)."		
134	**Mengham 1999**	UNCLEAR	UNCLEAR	UNCLEAR	LOW	
	Assessment justification:	NS	NS	NS	74/75 LOW 'Seventy-five patients were recruited and randomised. ' 'Of the 74 patients who completed the study'	
135	**Mensinger 2016**	LOW	LOW	LOW	HIGH	
	Assessment justification:	"This study was a 1:1 parallel-group randomized design comparing the effectiveness of two 6-month group-based "healthy living programs" (weight-neutral or weight-loss). Folded index cards containing program assignments from a computer-generated randomization scheme were placed into sealed and sequentially numbered opaque envelopes."	"Folded index cards containing program assignments from a computer-generated randomization scheme were placed into sealed and sequentially numbered opaque envelopes. Upon completion of the baseline assessments where informed consent was obtained, participants were given an envelope containing a welcome letter with their assignment and instructions."	Weight measured objectively. Waist and hip circumference was measured to the nearest quarter inch with a flexible tape measure on bare skin. Venous blood samples were drawn after an overnight fast in order to obtain glucose levels and lipid panels (total cholesterol, LDL-C, HDL-C, total cholesterol-HDL ratio, and triglycerides). We followed standardized methods established by the National High Blood Pressure Education Program and averaged two blood pressure (BP) readings using a Welch Allyn cuff with an aneroid sphygmomanometer.	Weight neutral - 39/40 at 6mths (LOW); 19/40 at 24mths (HIGH) weight loss - 33/40 at 6mths (LOW); 21/40 at 6mths (LOW). Attrition rate at 6-month for the weight loss group > 25%, change from low to high.	
136	**Messier 2013**	LOW	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"A stratified-block randomization method was used to assign all eligible persons to 1 of the 3 intervention groups, stratified by BMI and sex."	NS	Weight, height, and BMI were obtained at baseline, 6months, and 18months using standard techniques.	"Of the 454 participants, 399 (88%) completed the study (returned for 18- month follow-up). Retention did not differ significantly among the groups (E, 89%; D, 85%; D+E, 89%)..."	
137	**Miller 2002**	LOW	LOW	LOW	LOW	
	Assessment justification:	Randomization was stratified by race (African American and other), with an allocation ratio of 1:1 and a block size of 4. The order of randomization was constructed from a published list of random numbers;	assignments were issued by the study coordinator who opened sealed opaque envelopes that contained the group assignment.	Weight was measured biweekly by blinded personnel using a certified balance-beam scale.	Less than 50% attrition at 12-months follow-up.	
138	**Mitsui 2008**	UNCLEAR	UNCLEAR	UNCLEAR	LOW	
	Assessment justification:	"...were randomly assigned to the intervention group..."	NS	NS	"Two participants in the intervention group and 1 in the control group dropped out of the program after week 12 for personal reasons."	
139	**Molenaar 2010**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	Computerized randomization	NS	Weight objectively measured.	Twenty-four participants (18%) did not complete the 6-month intensive intervention period and an additional nine participants (7%) dropped out during the 6-month follow-up period	
140	**Moreno 2014**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"Patients were randomised and allocated to receive ... "	NS	Weight measured objectively. WC was recorded with a standard flexible nonelastic metric tape over the midpoint between the last rib and the iliac crest, with the patient standing and exhaling.	At 12-months: LC: 26/40 VLCK: 27/39 At 24-months: LC: 23/40 VLCK: 22/39	
141	**Morgan 2010**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"The random allocation sequence was generated by a computer-based random number-producing algorithm in block lengths of six to ensure an equal chance of allocation to each group."	"To ensure concealment, the sequence was generated by a statistician and given to the project manager. Randomization was completed by a research assistant who was not involved in the assessment of participants and the allocation sequence was concealed when enrolling participants."	"Weight was measured without shoes on a digital scale to 0.1kg (model CH-150 kp; A&D Mercury, Adelaide, Australia)" Systolic and diastolic blood pressure and resting heart rate were measured using a NISSEI/DS-105E digital electronic blood pressure monitor (Nihon Seimitsu Sokki, Gunma, Japan) under standardized procedures.	Retention rate: 3-month follow-up: Control: 27/31*100 = 87.1%; SHED-IT: 28/34*100 = 82.4% 6-month follow-up: Control: 26/31*100 = 83.9%; SHED-IT: 28/34*100 = 82.4% 12-month follow-up: Control: 20/31*100 = 64.5%; SHED-IT: 26/34*100 = 76.5%	
142	**Muggia 2014**	LOW	LOW	UNCLEAR	HIGH	
	Assessment justification:	"Participants were randomly allocated (allocation ratio 1:1) to the standard care or cognitive behavioral therapy group, using a computer-generated randomization application of STATA statistical package."	"Randomization list was kept at Biometric Unit and clinicians were unaware of the treatment group until the subjects were enrolled. The treatment allocation was communicated by phone to the clinician every time a new patient was enrolled."	Information on how weight was measured not stated.	A high attrition rate is observed and although multiple imputations are performed to reduce its impact bias, this cannot be excluded as also reported in similar studies. At the six month, 114 patients (69.9% of the total) attended the follow-up visit, with an attrition rate of 30.1%. The percentage of visits attended was significantly greater in group A (83.3% vs 70.4% in group B, $p < 0.001$). At the 12 month, 78 patients (47.8% of the total) attended the follow-up visit, with an attrition rate at 1 year of 47.8 per 100 person-year. A total of 44 patients in the treatment arm A (53.0%) and 34 (42.5%) in group B completed the follow-up, with no significant differences between the two groups.	
143	**Munsch 2003**	UNCLEAR	UNCLEAR	UNCLEAR	HIGH	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	NS	NS	"During the investigation the BMI (kg/m2) was recorded at the start, end and 12 months after completion of treatment."	“The dropout rate until the end treatment was 23%, 29% and 37% in the GP BASEL, the GP control and in the Clinic BASEL groups, respectively. This resulted in a distorted ratio between BASEL treated and control subjects (ratio: almost 3:1; aimed ratio: 3:2). The dropout rate between the end of treatment and the 1–year follow up was 0%, 33% and 52% in the GP BASEL, the GP control and in the Clinic BASEL groups, respectively."	
144	**Munsch 2007**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"Following diagnostic interviews, patients were randomized according to a permuted block design."	NS	"Weight and height were measured on a Seca electronic balance scale (Seca, Vogel þ Halke, Germany) and by a stadiometer."	"Twenty-two participants (27.5%) dropped out during treatment: 13 (29.5%) in CBT and 9 (25.0%) in BWLT. During follow-up 3 participants withdrew from CBT and 4 from BWLT. There were no significant differences in dropout rates between the two treatment conditions between baseline and 12- month follow-up." "A final follow-up measurement took place on average 307.5 weeks (median ¼ 314.5, SD ¼ 46.9, MIN ¼ 217, MAX ¼ 373), i.e. c. 6 years, after the active treatment had ended. To this end, all patients attending at least one session of active treatment were again contacted. Of the initial 44 patients allocated to the CBT condition andthe 36 patients allocated to the BWLT condition, 26 (59%) in the CBT, and 26 (72%) in the	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
					BWLT took part in the 6-year follow-up assessments."	
145	**Murphy 1982**	UNCLEAR	UNCLEAR	UNCLEAR	UNCLEAR	
	Assessment justification:	NS	NS	NS	"Excluding those subjects who dropped out before the first treatment session, the attrition rate through the end of treatment was 40%"	
146	**Nakata 2014**	LOW	LOW	LOW	LOW	UNCLEAR
	Assessment justification:	" After the motivational lecture, the participants were randomly assigned to one of the 3 groups using simple randomisation procedures involving computerised random numbers."	"The allocation data were generated by an investigator (MO) who had no contact with the participants or other staff members, and the data were maintained at a central secure location until completion of the motivational lecture."	"Data were collected at baseline and at months 3, 6, 18 and 30 in the hospital by trained hospital staff members who were blinded to the treatment assignment process. The primary outcome measure was the amount of weight lost from baseline to 30 months."	The attrition rates were 9.6% (12/125) and 20.0% (25/125) at months 18 and 30, respectively (Fig. 1). The numbers of individuals lost to follow-up at 30 months were similar in both groups (p = 0.531).	"Due to ethical concerns, we provided group-based support to the control group after the 6-month intervention period and did not include them in the follow-up measurements."
147	**Nanchahal 2012**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"Participants were randomly allocated (allocation ratio 1:1) to the control or intervention group (TP, EH, AS), using a computer-generated randomisation application written in VBA for MS Access (TP). The Taves method of minimisation 48 was used to ensure the groups were balanced for general practice, gender, age group (≤50/>50 years), BMI category (≤30/>30 kg/m2), diagnosis of diabetes (yes/no) and taking antipsychotic medication or not."	NS	The study was single blinded with members of the study team assessing baseline and follow-up measurements blinded to group assignment. Weight (in light clothing) was measured using the Tanita (BC 420 MA) scales. The scales also reported per cent body fat, basal metabolic rate and metabolic age (age expected for a given value	Retention rate: 6-months (step change in intervention intensity): Control: 67.9%; CAMWEL: 70.2% 12-months: Control: 60.0%; CAMWEL: 53.9%	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
				of basal metabolic rate). Waist was measured midway between the iliac crest and the costal margin to the nearest 0.1 cm. Blood pressure and heart rate were measured using a digital automatic monitor (Omron Model M10-IT), with the average of three readings recorded where possible.		
148	**Ng 2015**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	“Recruited patients were randomized in 1:1 ratio to participate in the LMP or usual care through the use of a computer-generated list of random numbers.”	NS	"Anthropometric measurements, ESS, and laboratory tests, which included liver and renal function, fasting glucose, and lipids, were performed at baseline, 4 months, and 12 months."	"Sixteen participants in the intervention group were excluded after randomization, as six had never attended dietician visits, seven attended fewer than four dietician visits, and three maintained their high-energy and -fat food intake. There were six subjects in the control group lost to follow-up." LMP Group: 45/61*100 = 73.8%; Control: 37/43*100 = 86%	
149	**Nicklas 2004**	LOW	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"A variable-block randomization method was used to assign all eligible persons to 1 of the 4 intervention arms, stratified by race (white versus nonwhite). A list of random assignments to the 4 groups was computer-generated within each stratum, with blocks of 4, 8, and 12 chosen with equal probability."	"Once a subject met the eligibility criteria, a computer program displayed the next group assignment and logged it into the database."	"Each subject's weight (without shoes) was measured at baseline and at the 6-month and 18-month followup visits, using the same calibrated scale. Measurement at each session was scheduled for the same time of day."	"Of the 316 randomized participants, 252 (80%) completed the study (returned for the final data collection visit).""Retention of participants was not significantly different between the 4 groups (for healthy lifestyle, 86%; for diet only, 77%; for exercise only, 80%; for diet plus exercise, 76%)."Retention of participants was not significantly different between the 4 groups (for healthy lifestyle, 86%; for diet only, 77%; for exercise only, 80%; for diet plus exercise, 76%)" Attrition rate: 6 Month: Healthy lifestyle: 89.7%; Exercise only: 87.5%; Diet only: 87.8; Diet plus exercise: 82.9% 18 Month: Healthy lifestyle: 86%; Exercise only: 80%; Diet only: 77; Diet plus exercise: 76%	
150	**Nicklas 2009**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"A total of 112 women met all study criteria and were randomly assigned (before baseline assessments) to 1 of the 3 interventions (Figure 1) by random number generation."	NS	Staff that measured the primary (abdominal visceral fat volume) and secondary (CVD risk factors) outcomes were blinded to group assignment.	Post-intervention: CR only: 73%; CR + Mod: 70%; CR + Vigorous: 71% 6-month: CR only: 67.6%; CR + Mod: 72.5%; CR + Vigorous: 68.4% 12-month: CR only: 58.8%; CR + Mod: 67.5%; CR + Vigorous: 68%	
151	**Nilsen 2011**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	Groups were randomly assigned to an “individual physician group” (IG) or an “individual plus interdisciplinary group” (IIG) by use of closed envelope method with unknown block sizes.	Closed envelope method.	“At every visit to the study physician, the following assessments were performed: fasting blood sample, systolic and diastolic blood pressure (SBP and DBP) according to recommended standards [18], waist circumference at a level midway between the lowest rib and the iliac crest to the nearest cm, height without shoes to the nearest cm (only first visit) and weight in indoor clothes to the nearest 100 g. Blood pressures were measured by an Omron M41 and weight with a Seca 771.”	Control IG: 89/104 at follow up Intervention IIG 93/109	
152	**Nordby 2012**	LOW	LOW	UNCLEAR	HIGH	
	Assessment justification:	"The randomization was performed over the three 6-mo blocks, using a manual lottery in which participants drew their own lot."	"Sixty participants were randomized, each participant drawing his own lot."	"Before, during, and after the intervention, participants underwent a panel of tests."	Dropout rates for each group post intervention were >20% for all groups. "Of the 36 participants who completed T, D or T-iD, 28 participated in follow-up visits: 9 participants in T (6 months: n = 7; 12 months: n = 8), 10 participants in D and 9 participants in T-iD)." Only 41% of participants in group T participated at the 6-month time point.	
153	**Nurkkala 2015**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	"All measurements were performed at baseline and at 9, 24 and 36 months. Body weight was measured to the nearest 0.1 kg using a calibrated scale (SOEHNLE S20, Soehnle waagen, Germany)."	"Fifty-nine participants (66%) in the intervention group and seventeen participants (57%) in the control group completed the study."	
154	**Oldroyd 2006**	LOW	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	Eligible participants who agreed to take part were randomly allocated using a random number table to the intervention or control group at the first baseline appointment.	"Researchers performing the randomisation were blind to the group allocation."	Weight was measured to the nearest 0.1 kg with the participants lightly clothed on SECA scales (Alpha Model 770 digital, SECA Limited, Birmingham, UK)	6-month follow-up: Control: 32/39 * 100 = 82%; Intervention: 37/39*100 = 94.9% 12-month follow-up: Control: 30/39 * 100 = 77%; Intervention: 32/39*100 = 82% 24-month follow-up: Control: 24/39 * 100 = 62%; Intervention: 30/39*100 = 77%	
155	**Pan 1997**	UNCLEAR	UNCLEAR	LOW	UNCLEAR	HIGH
	Assessment justification:	NS	NS	"Briefly, blood pressure, height, and weight were measured in light clothing without shoes following methods used in the WHO multinational study of vascular disease in diabetes (17)."	NS	"The original 6-year study randomised to 4 groups (1. control, 2. diet, 3. exercise 4. diet and exercise). However, for the 20-, 23- and 30 year follow-ups, the authors combined the intervention groups and only reported data for the 'control' versus 'intervention' arms. Authors state that the reason for this was that: "As diabetes incidence did not differ significantly among the three intervention groups during the active intervention period and because of limited power to detect differences, the intervention groups were combined and comparisons were made between the combined intervention group and the control group."
156	**Parikh 2010**	UNCLEAR	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Participants were randomized to intervention or delayed intervention (in 1 year) by blocked randomization (block size=4) by recruitment site." No further information given.	NS	Weight measured objectively.	"The study had some attrition: 83 participants returned at 3 months, 79 at 6 months, and 72 at 12 months (37 control, 35 intervention). Four participants became ineligible because of pregnancy. The 23 participants lost to follow-up at 12 months did not differ from those who returned for the final check-up in age, gender, weight, BMI, or family history of diabetes."	
157	**Patel 2016**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"We stratified the randomization, so that people with a BMI of 30–40 were randomly assigned separately from those with a BMI of greater than 40."	NS	"All participants received $25 for enrolling, $25 for the six-month weigh-in..."	Control: 100%; Standard: 96.1%; Immediate: 96%; Daily lottery: 100% analysed.	
158	**Pavlou 1989a**	UNCLEAR	UNCLEAR	UNCLEAR	LOW	
	Assessment justification:	NS	NS	NS	Less than 25% of attrition at 36-month follow-up.	
159	**Pavlou 1989b**	UNCLEAR	UNCLEAR	UNCLEAR	LOW	
	Assessment justification:	NS	NS	NS	Most subjects (103) of the main study reported to the clinic for follow-ups and the information on the remaining 7 subjects was obtained by a telephone interview. 110/160 participants completed the study	
160	**Pearce 1981**	UNCLEAR	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Subjects were randomly assigned from stratified blocks of percentage overweight to one of five treatment conditions..."	NS	"There was no contact between the therapist and subjects during the follow-up phase except during the 3-, 6-, and 12-month weigh-ins."	Of the original 68 subjects, all had met the attendance requirements at posttreatment, which represented a 0% attrition rate. By the 12-month follow-up, 6 subjects had been lost, which represented an 8.82% attrition rate." Wives alone: Posttreatment N = 13; 3, 6, 12 months: N = 12; Alternative treatment group: Post-treatment: N = 14; 3, 6, 12 months: N = 12.	
161	**Pedersen 2013**	LOW	UNCLEAR	LOW	LOW	UNCLEAR
	Assessment justification:	"Randomization was stratified according to BMI (≤ 32.5; > 32.5). A third party unrelated to the study performed en bloc randomization with bloc size 2, 4 and 6 using Stata 11.1 software (StataCorp, 4905 Lakeway Drive, College Station, TX, USA)."	NS	"All participants are examined at baseline, after 12 weeks and after a year. Most examinations were performed at University Hospital of Bispebjerg, Department of Cardiology, except the MRI that was performed at University Hospital of Herlev and PET that was performed at Rigshospitalet." This included body composition assessed by anthropometry.	Dropout rate at 12-weeks follow-up: AIT: 31/35*100 = 88.6%; LED: 34/35*100 = 97.1% Drop out rate at 1-year follow-up: AIT: 26/35*100 = 74.3%; LED: 29/35*100 = 82.9%	"Drop-out rates (26% and 17% in the AIT and LED+AIT group, respectively) imply that intensive lifestyle changes require physical and mental strength and support from relatives and employers especially when considering long-term interventions." "However, drop-out rates introduce a risk of bias due to small sample size and challenges related to generalisability as discussed above. "
162	**Pekkarinen 2015**	LOW	LOW	LOW	LOW	
	Assessment justification:	"A physician who had no contact with the patients carried out randomization using a computer-generated table of random numbers with block size of four and allocated participants."	Refer to 'Random sequence generation (selection bias)'.	"Weight was measured using a study purchased digital scale with an accuracy of 0.1 kg (Soehnle model 7307, Soehnle-Waagen GmbH & Co, Murrhardt, Germany) with light clothing and no shoes at	No maintenance group 69/100 at 17-weeks; 89/100 at 69-weeks; 75/100 at 121-weeks. Maintenance group: 79/101 at 17-weeks; 68/101 at 12mths;	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
				baseline, at each session and at weeks 69 and 121."	75/ 101 at 69-weeks; 68/101 at 121-weeks.	
163	**Perri 1984**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	Subjects were assigned randomly from stratified blocks of percentage overweight to one of six experimental conditions in a 3 X 2 factorial design.	NS	Non-behaviour therapy - 'participants were weighed in front of their group'; Behaviour therapy - 'therapists weighed participants in private'	28/129 dropped out, attrition rate 22%	
164	**Perri 1986**	UNCLEAR	UNCLEAR	LOW	UNCLEAR	
	Assessment justification:	"Subjects were assigned from blocks stratified by percentage over ideal weight to one of four experimental conditions in a 2 × 2 factorial design. Two treatment conditions (behavior therapy or behavior therapy plus aerobic exercise) were crossed with two posttreatment conditions (no posttreatment contact or a multicomponent posttreatment maintenance program)."		"Changes in weight were assessed at posttreatment and at 3-, 6-, 12-, and 18-month follow-up sessions."	"Of the 90 subjects who began the program, 18 dropped out during the initial treatment phase, representing an attrition rate of 20%. Rates of attrition did not differ significantly among groups, and subjects who dropped out did not differ significantly from subjects who completed the program in either initial body weight or percentage overweight. During the follow-up phase of the study, 4 subjects elected not to participate in the maintenance program and 1 person was hospitalized (for a problem unrelated to obesity) and withdrew from the study."	
165	**Perri 1987**	UNCLEAR	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	" At pretreatment, clients were randomly assigned by sex to one of the following conditions..."	NS	"The dependent measures included body weight, body-mass index (BMI), and percent overweight. Assessment occurred at pre- and posttreatment and at 7-month and 18-month follow-ups."	"Of the 109 clients who began the program, 24 dropped out during treatment, representing an initial attrition rate of 22%. Over the course of the 18-month follow-up period, an additional 10 clients withdrew from the program; thus, 75 of the 109 clients (69%) participated in treatment through the 18-month follow-up evaluation. Rates of attrition during the treatment and follow-up phases of the study were similar across conditions (ps > .20)." Total attrition rate per group: B+P = 69%; B+T: 57.8%; B =73%	
166	**Perri 1989**	UNCLEAR	UNCLEAR	UNCLEAR	LOW	
	Assessment justification:	NS	NS	NS	Less than 50% attrition at 72-week follow-up.	
167	**Perri 1997**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	"Weight was measured on a balance beam scale at each weight loss program session, with the participant in indoor clothing without shoes."	"Forty of the 49 (81.6%) participants completed the 12-month treatment program. One participant in the home-based program became pregnant during Month 2, and her data were excluded from all analyses. There were 7 dropouts in the group-based exercise condition and 1 dropout in the home-based exercise condition"	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
168	**Perri 2001**	UNCLEAR	UNCLEAR	UNCLEAR	UNCLEAR	
	Assessment justification:	The authors only mention that participants were assigned randomly to one of three conditions, however no information regarding the methods of randomization are provided.	NS	"The primary outcome measure was change in body weight assessed over the course of 17 months."	Total number of participants at baseline: 103; 88 completed the 5-month program, yielding an initial treatment completion rate of 85%. At the conclusion of initial treatment, the small number of male participants was unevenly distributed across conditions, and the data from these participants (n = 8) were excluded from further analysis. Thus, the study sample consisted of 80 women. 17 Month follow-up: BT = 15; RPT = 20; PST = 23	
169	**Perri 2014**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	Weight was measured with a digital scale (Tanita Model BWB-800S, Arlington Heights, IL) at Months 0, 6, and 24.	Control: 162/169 at 6mths; 142/169 at 24mths. Low dose: 138/148 at 6mths; 112/148 at 24mths. Moderate dose: 129/134 at 6mths; 112/134 at 24mths. High dose: 155/161 at 6mths; 126/161 at 24mths.	
170	**Pettman 2009**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Using a random number generator (MS Excel), participant data were then distributed into three groups of approximately equal numbers. Unidentifiable individuals were block-matched to achieve an even gender balance and distribution of MetS risk factors over the 3 groups by calculating means for waist, DBP and age together with counts of males and females for each group. The groups were checked for significant differences between variables using independent samples t-tests. The three groups were then randomly assigned to 'A', 'B' or 'C' corresponding to INT-A, INT-B or CON respectively."	"Study personnel generating the sequence were not aware of participant details, due to obscuring of identification numbers. Final group assignment was conducted by an impartial person."	"Body weight was measured to the nearest 0.1 kg (Tanita Ultimate scales™ Model 2000, Tanita Corporation, Tokyo, Japan), except for individuals weighing over 150 kg, who were weighed on a single set of electronic glass scales (Model 3200, Propert Pty Ltd, Castle Hill, NSW, Australia). The same set of scales was used at subsequent measurements for each participant."	Retention rate: 4-months: Control: 86%; INT-A: 98%; INT-B: 92.6% 12-months: Control: 36/43*100 83.7%; INT-A: 44/48*100 = 91.6%; INT-B: 35/49*100 = 92.6%	
171	**Poelman 2015**	LOW	UNCLEAR	HIGH	LOW	
	Assessment justification:	"Randomization lists were generated with standard statistical computer software (IBM SPSS Statistics 20.0). Based on the randomization list, the researcher (M.P.P) allocated subjects to one of the groups."	"Due to the nature of the intervention, it was not possible to blind participants to their allocated condition."	At baseline (T0), weight was measured using two different scales: a professional one (the Marsden MPMS-250 digital scale, Oxfordshire, UK) and the participant's scale, in light clothes and with shoes removed. Measurements were highly correlated (regression coefficient= 0.99; intercept=-0.10), indicating that both scales yield largely similar results. At T2, the weight was also objectively measured using the professional scale, during a home visit from the researchers. At T1 and T3, participants were asked again to weigh themselves. T0 = Baseline T1 = 3-months T2 = 6-months T3 = 12-months	Less than 50% at 12-month follow-up. Control 73.4% Intervention 64% at 12-month follow-up At 3-months: usual care: 111/139; intervention: 85/138 At 6-months: usual care: 118/139; intervention: 105/138 At 12-months: usual care: 102/139; intervention: 89/138	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
				T1 (3-months) time point was intervention end and participants self-weighed.		
172	**Promrat 2010**	LOW	LOW	LOW	LOW	
	Assessment justification:	"Randomization was performed using a random number generator developed by the project statistician, with a target enrollment of 30 participants."	"The randomization process was conducted by a project staff who was blinded to the randomization sequence."	"Data collection was obtained by trained staff who were not aware of the group assignment or sequence of measurement."	"Thirty participants (97%) completed the study. One participant (3%) in the lifestyle intervention group withdrew from the study after 3 months. All other participants adhered to the study protocol follow-up schedule."	
173	**Provencher 2009**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"Randomization was performed within each phase, and women were then assigned to one of the 3 treatment conditions: HAES group (N = 48), SS group (N = 48), or control group (N = 48).	NS	"Height was measured to the nearest millimeter with a stadiometer, and body weight was measured to the nearest 0.1 kg on a calibrated balance. Participants were asked to dress lightly and to remove their shoes for these measurements."	Baseline (T=0): Control: 46/48*100 = 95.8%; SS Group: 46/48*100 = 95.8%; HAES: 100% 4-months (T=4): Control: 38/48*100 = 79.2%; SS Group: 39/48*100 = 81.3%; HAES: 44/48*100 =91.7% 10-months (T=10): Control: 34/48*100 = 70.8%; SS Group: 38/48*100 = 79.2%; HAES: 45/48*100 =93.8% 16-months (T=16): Control: 32/48*100 = 66.7%; SS Group: 33/48*100 = 78.8%; HAES: 41/48*100 =85.4%	
174	**Ptomey 2018**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Following receipt of written physician clearance, participants were computer randomized, stratified by the number of adults with intellectual and developmental disabilities in a residence (alone, 1–2, or 3–5), with equal allocation to the eSLD and CD groups. Multiple adults in a single residence volunteering to participate were assigned to the same intervention group. There were 24 residences with two participants and nine residences with three participants."	"Allocation was concealed in envelopes, which were delivered to the study coordinator as participants were recruited."	Weight measured objectively.	CD: 57/72 at 6mths; 47/72 at 18mths eSLD: 67/77 at 6mths; 54/77 at 18mths (1 withdrew before starting (78-1=77))	
175	**Ramirez 2001**	UNCLEAR	UNCLEAR	UNCLEAR	LOW	
	Assessment justification:	NS	NS	A digital scale was used. "At 12m FU, there were several participants who were unavailable for weighing in the research center. In those instances, self-reported weight was taken and corrected by taking the average discrepancy between observed and self-reported weights on the three prior weightings" (unclear how many participants this applies to and which study arm)	Attrition was less than 50% for both groups at 12-month follow-up.	
176	**Rejeski 2011**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"Each participant was randomized to treatment using a permuted block randomization scheme with stratification by wave within each county in an effort to minimize confounding between treatment and location."	NS	Weight measured objectively.	Less than 50% attrition at 18-month follow-up.	
177	**Ridgeway 1999**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	"The patients were weighed..."	CG: 20/28 = 71%; IG: 18/28 = 64%	
178	**Rock 2015**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Random assignment was performed by a centralized computer process, assigning participants in a 1:1 ratio to either the intervention arm or the less intensive intervention control arm, stratified by age (or 55 years), stage (I v others [II and III]), and study site.	"Randomization was performed by a centralized computer process"	Weight was measured at baseline and at 6-, 12-, 18- and 24-month follow-up visits, using a calibrated scale.	"Weight was not available for 44 intervention group and 61 control group participants at 24 months"	
179	**Rolls 2005**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"…a stratified randomization scheme was used to balance the distribution of subject sex and age across the groups."	NS	"Body weight was measured at each counseling session, with the subject wearing light clothing without shoes, using a scale that was regularly calibrated."	Less than 50% attrition at 12-month follow-up.	
180	**Rolls 2017**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"Participants were stratified by body mass index and age, and randomly assigned to one of three groups, using blocks of six sequences from a random number generator."	NS	"Subjects were weighed to the nearest 0.1 kg while wearing a lightweight outfit kept for them at the center. Height was measured with a stadiometer; waist circumference was measured at the right iliac crest.	3-month: total sample follow-up: 170/ 186* = 91.4%; Standard advice group: 59/62*100 = 95%; Portion selection: 58/62*100 = 93.5%; Pre-portioned foods: 59/62*100 = 95% 6-month: total sample follow-up: 149/ 186* = 80.1%; Standard advice group: 52/62*100 = 83.9%; Portion selection: 51/62*100 = 82.3%; Pre-portioned foods: 53/62*100 = 85.5% 12-month: total sample follow-up: 136/ 186* = 73%; Standard advice group: 49/62*100 = 79%; Portion selection: 51/62*100 = 82.3%; Pre-portioned foods: 51/62*100 = 82.3%	
181	**Rosas 2015**	LOW	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	Participants are randomized to one of three arms according to the ratio 1 UC: 2 CM: 2 CM+CHW. After all baseline data were collected, a blinded data analyst/biostatistician confirmed study data completion and randomizes the participant to one of the three arms in permuted blocks stratified by sex, BMI (30-34.9, 35-39.9, or ± 40), and diabetes status.	The data analyst/ biostatistician was blinded.	Data collection staff were blinded to treatment assignment. Weight was measured at each assessment visit in duplicate using a Detecto scale, whereas height was measured in duplicate using a wall-mounted stadiometer at baseline only. Participants' anthropometric measures were assessed without their shoes and coats.	As in other lifestyle intervention trials, all participants did not attend all planned intervention activities (one-on-one case management, groups sessions, and home visits). This limited our ability to test whether the planned intervention had the intended effect. Nevertheless, the percentage of participants attending each activity was within the expected range. Body weight was collected from 207 participants (100%) at baseline, followed by 190 (91.8%) at 6 months, 171 (82.6%) at 12 months, and 177 (85.5%) at 24 months.	
182	**Ross 2012**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	Eligible participants were randomized on the basis of a computer automated randomization sequence after the acquisition of primary outcome data. Randomization was stratified by sex, age, and WC measurement	NS	Weight objectively measured.	Of the 490 participants, 396 (80.8%) returned for follow-up testing at 24 months.	
183	**Samaras 1997**	UNCLEAR	UNCLEAR	LOW	LOW	UNCLEAR
	Assessment justification:	'Subjects were randomised into two groups' No further information given.	NS	All anthropometric measures were performed by a trained investigator (AMM). Body height was measured to the nearest cm using a stadiometer with the subject barefoot; body weight to the nearest 0.1 kg in light street clothing. B	Control: 13/13 at 12-months Intervention: 13/13 at 12-months 0% dropout by end of study	After the 6-month programme, the exercise sessions remained available to subjects in the intervention group.
184	**Santanasto 2011**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"Randomization was done using a Microsoft Access-based random-number generating algorithm with stratification by age and sex to further ensure balance between groups (Microsoft Redmond, Washington)."	NS	"At the baseline (BL) screening visit and followup visits, body height (cm) was measured using a wall-mounted stadiometer and body weight (kg)with a standard	"All participants, with the exception of one in the PA+SA group, were followed up to their 6FU visits." 12 Month follow-up: PA +LW =	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
				certified calibrated scale and were used to calculate BMI (weight (kg)/height (m2))."	18/21*100 = 85.7%; PA + SA = 93.3%	
185	**Sattin 2016**	UNCLEAR	UNCLEAR	UNCLEAR	LOW	
	Assessment justification:	"Churches were recruited as pairs in the study based on congregation size. These pairs were included in six cohorts with each cohort including either two or four churches. Each church pair was then randomized to the Fit Body and Soul (FBAS) behavioral lifestyle intervention or Health Education (HE) comparison group." No further information given.	Allocation concealment through pastor but no further detail given.	NS	No attrition.	
186	**Schubel 2016**	LOW	LOW	LOW	LOW	
	Assessment justification:	"They sequentially enter the study and are randomly allocated to the three dietary programs (ICR, CCR, or HD) by RANDI2 [9], a web-based software using a block size of six. Randomization is stratified by age (<50 years/ ≥ 50 years) and sex."	Refer to 'Random sequence generation (selection bias)'.	"All outcome assessments (see Table 2) are performed by trained study personnel following standard operating procedures."	Overall, 144 participants (96.0%) completed the 12-wk intervention phase, 143 (95.3%) the 12-wk maintenance phase, and 136 (90.7%) the 26-wk follow-up phase (Figure 1). Across the entire study period of 50 wk there were 4 dropouts in the ICR (91.8%), 7 in the CCR (85.7%), and 2 (96.2%) in the Control group.	
187	**Seligman 2011**	LOW	LOW	LOW	LOW	
	Assessment justification:	"Randomization was performed using a computer sequence with centrally concealed allocation."	Refer to 'Random sequence generation (selection bias)'.	"Body mass index was calculated as weight/height2 (kilograms per square meter). Waist was measured between the last rib and the iliac crest. Body fat mass was assessed with bioelectrical impedance (Omron HBF 306 Bioimpedance Analyzer)."	Less than 25% attrition at 12-months follow-up.	
188	**Shikany 2013**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"At the baseline visit, eligible participants were randomly assigned to the MD or FB group via a pseudorandom number generator with a 1:1 allocation ratio"	"The allocated group was indicated on cards contained in sequentially numbered, opaque, sealed envelopes prepared in the Department of Biostatistics, UAB School of Public Health. To randomize a participant, the study coordinator opened the next consecutively numbered envelope in the presence of the participant."	"…fasting serum glucose concentration was assessed; height, weight and blood pressure were measured; Body weight was assessed at baseline and at the 26- and 52-week clinic visits as outcome measures (and at the 8-, 16-, 32- and 40-week clinic visits as a check of participant progress), with participants in light clothing and no shoes using a Tanita model BC-418 digital scale/body composition analyzer (Tanita Corporation of America, Inc., Arlington Heights, IL, USA)."	6-month retention rate: FB: 49/60 = 81.6%; MD: 56/60 = 93.3% 12-month retention rate: FB: 56/60 = 93.3%; MD: 57/60 = 95% Food based: 45/60 Medifast: 50/60	
189	**Sikand 1988**	UNCLEAR	UNCLEAR	LOW	LOW	
		NS	NS	"Subjects in both groups took body composition tests..."	Follow-up at intervention end (4 months): Non-exercisers: 66%; Exercisers: 73%. Non exercisers: 10/15; Exercisers: 11/15. LOW Follow-up rate at the first follow-up following intervention end (2 years): Non exercisers: 8/15 (53%) LOW; Exercisers: 7/15 (46.7%) HIGH.	
190	**Silva 2010**	LOW	UNCLEAR	LOW	LOW	UNCLEAR
	Assessment justification:	"...using the random number generator function for Microsoft Excel 2007 for Windows."	NS	"Assessments included lab-measured body weight and body composition (assessed at baseline, 4 and 12 months (end of the intervention program))..." At 2 and 3 year follow-ups: "Body weight was measured twice, using an electronic scale calibrated on site and accurate to	Retention rates at each follow-up (not reported for 2-year follow-up): 12-months: Comparison group: 80%; Intervention group: 93%;	"A total of 258 women completed initial assessments and were randomized to intervention and comparison groups. Thirty-seven women were subsequently excluded from all analyses because they started taking medication (antidepressant, anxiolytic, and

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
				0.1 kg (SECA, Hamburg, Germany)."	3-year: Comparison group: 80%; Intervention group: 79%* *"For the 36-month analyses reported herein, 2 women without 36-month anthropometric data were excluded, leaving a final sample of 154 women."	antiepileptic) susceptible to affect weight (n = 13) or because of serious chronic disease diagnosis or severe illness/injury (n = 4). Others were excluded because of pregnancy (n = 11) or because they entered menopause (n = 9). These 37 women were of similar age (P = 0.737) and BMI (P = 0.852) as the 221 participants who were considered as the valid initial sample for this study."
191	**Snel 2012**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	"...patients visited the research center after an overnight fast. Height, weight and waist circumference were measured."	"All patients completed the whole study period of 18 months, there were no dropouts from the study."	
192	**Solbrig 2018**	LOW	UNCLEAR	LOW	LOW	UNCLEAR
	Assessment justification:	"Participants were randomized to MI or FIT by the lead researcher using https://www.randomizer.org/ (random pairs option)."	NS	In the two posttreatment assessment sessions, research assistants (RAs) who were blind to the intervention group, collected and recorded primary outcomes. RAs blind to intervention measured waist and weight, and participants completed process measures online.	Attrition: less than 25% of participants in each arm at 6-month (programmes' end) and 12month.	Both interventions were delivered individually by the lead author. Potential for contamination bias.
193	**Somers 2012**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"...a data technician unfamiliar with the research protocol used a random allocation computer software program to assign participants in blocks (minimum = 27, maximum = 39) to 1 of 4 treatment conditions."	Refer to 'Random sequence generation (selection bias)'.	"Weight was measured to the nearest 0.1 kg without shoes in the standing position. "	"Seventy percent (n = 163) of all randomized participants completed the 2-year study..."; "Twenty-four participants (6 from PCST-only, 10 from BWM-only, 4 from PCST + BWM, 4 from standard care) dropped out of the study after randomization but before treatment..."; "Participant dropouts at other study intervals were as follows: 20 participants dropped out before the posttreatment assessment (6 from PCST-only, 3 from BWM-only, 5 from PCST + BWM, 6 from standard care); 15 participants dropped out before the 6-month follow-up assessment (5 from PCST-only, 2 from BWMonly, 4 from PCST + BWM only, 4 from standard care); and 10 participants dropped out before the 12-month posttreatment assessment (4 from PCST-only, 4 from BWM-only, 2 from PCST + BWM only, 0 from standard care)."	
194	**Spring 2013**	LOW	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"…computer generated using the method of randomly permuted blocks."	NS	"Weight was measured with the participant dressed in light clothing with shoes off on a calibrated balance beam scale at randomization and at 3-, 6-, 9-, and 12-month follow-up."	Standard Group: 30/35 at 3mths; 28/35 at 6mths; 29/35 at 9mths; 27/35 at 12mths. + Mobile group: 30/34 at 3mths; 29/34 at 6mths; 27/34 at 12mths. 'The proportion of missing data ranged from 13.0% to 21.7% across post randomization assessment periods, and the proportion of participants who attended all 4 outcome assessments was 73.9%.'	
195	**Spring 2017**	LOW	LOW	LOW	HIGH	
	Assessment justification:	"Once all eligible participants of a cohort were assigned to a group, the three groups within each stratum were randomized by a statistician using a randomly permuted block with three cells."	"The statistician notified the project staff, who then revealed the treatment assignment (STND, TECH, or SELF) to participants during the first in-person group session."	"Body weight was measured without shoes on a calibrated balance beam scale at baseline and at 3, 6, and 12 months."	"Attrition at the final 12-month follow-up assessment was greater for SELF (25.0%) than either STND (12.5%) or TECH (3.1%)." 21.9% difference in attrition rate at 12 months follow-up.	
196	**Stahre 2005**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	"Weighing was always done without shoes and with light clothing using a calibrated scale. Those hospital personnel who were not participating in the study checked all the final weight measures."	Control: 36/43 at 6mths; 33/43 at 12mths; 31/43 at 18mths. Treatment: 57/57 at 10-weeks; 47/57 at 6mths, 40/57 at 12mths; 34/57 at 18mths.	
197	**Stahre 2007**	UNCLEAR	UNCLEAR	LOW	HIGH	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	NS	NS	"The participants in the two programs were weighed and measured regarding height on the same occasions. Weighing of the participants was done using a calibrated scale with light clothing and without shoes. Two persons checked the measurements of the participants' weight."	Cognitive program group: 16/27 = 59% retained and commenced treatment, 1 woman did not complete program. Control group: 26/27 = 96% retained and commenced treatment, 6 women did not complete program. 24/54 (44%) participants followed up at 12 months.	
198	**Stalonas 1978**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"Subjects were randomly assigned to four groups (matched on age, sex, absolute weight, and overweight) in a 2 X 2 factorial design."	NS	"The first part of each meeting was directed toward an extensive, individual review of performance records, charts, and weights with one of the two therapists."	"Of the 44 subjects completing the program, one subject was unavailable at the 3-month follow-up due to pregnancy, and two additional subjects had left the country at the 1-year follow-up."	
199	**Stenius-Aarniala 2000**	LOW	UNCLEAR	UNCLEAR	LOW	
	Assessment justification:	Randomisation was by "shuffling cards", with the help of someone not involved in the study.	Refer to 'Random sequence generation (selection bias)'.	NS	Control: 19/19 Treatment: 19/19	
200	**Stevens 1993**	UNCLEAR	LOW	LOW	LOW	
	Assessment justification:	"At clinics using the weight reduction intervention, randomization was conducted within high- and low-weight strata, with only high-weight participants eligible for the weight reduction group."	Centralized allocation by telephone; if not possible, sealed opaque envelopes.	"In addition, weights and blood pressures were recorded for all participants during official clinic visits 3, 6, 12, and 18 months after they entered the study."	93% followed up at 12 months overall: 93% intervention; 93% control. Reasons for attrition not reported.	
201	**Stevens 2001**	UNCLEAR	LOW	LOW	LOW	
	Assessment justification:	NS	Centralized allocation via telephone to central randomizing centre or via sealed opaque envelopes.	"Blood pressure and weight were measured every 6 months after randomization to the end of follow-up at 36, 42, or 48 months, depending on randomization date. Clinic staff	92% followed up at 18 months overall: 92% intervention, 92% control. Reasons for attrition not reported.	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
				who were blinded to study group assignment made these assessments."		
202	**Stolley 2017**	LOW	LOW	LOW	LOW	
	Assessment justification:	"Women were randomly assigned using a random digit generator after the baseline interview."	"The allocation assignments for each site are generated using a SAS program written by the data analyst, who has no contact with participants. A few participants may be unable to complete the baseline visit before the main randomization round. In these cases, the data analyst prepares sealed, numbered envelopes containing the next allocation assignments for the site. As each woman completes her baseline visit, she is assigned the next envelope in the series."	"Weight was measured to the nearest 0.1 kg using a digital scale (Tanita; Arlington Heights, IL), with participants wearing light clothes without shoes. Two measurements for height and weight were taken; a discrepancy of more than 0.5 cm for height or 0.2 kg for weight resulted in a third measurement."	"Retention was 86% (n = 212) at 6 months and 84% (n = 206) at 12 months."	
203	**Strobl 2013**	LOW	LOW	LOW	LOW	
	Assessment justification:	"The random sequence was generated at the University of Würzburg by staff not working at the rehabilitation clinic, using a computer program."	"After having recruited a participant, clinic staff requested the randomization result from the scientific staff by phone (telephone randomization) thus guaranteeing concealment of randomization up to recruitment."	"Body weight was assessed by both self-reports and physician measurements (at 12 months). Both assessments were highly concordant (intraclass correlation coefficient 0.99), with patients reporting slightly lower weight than did physicians (mean difference = –0.61, (standard deviation (SD) 1.88)). For the outcome analysis, the physician measurement of body weight was used whenever possible."	Usual care: 203/239 at 6mths; 164/239 at 12mths Intervention: 201/228 at 6mths; 177/228 at 12mths.	
204	**Sundfor 2018**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"A statistician prepared a computer-generated random number list."	"The project leader (TS) opened numbered and sealed envelopes consecutively with no exception."	"Body weight was measured following a 10-h fast using the same calibrated digital scale to the nearest 0.1 kg."	"As shown in the Consolidated Standards of Reporting Trials flow chart four dropouts occurred in the intermittent versus three in the continuous energy restriction group." Greater than 90% of participants returned for all follow-up time points.	
205	**Tapsell 2017**	LOW	LOW	LOW	HIGH	
	Assessment justification:	"Randomisation was conducted after the second screen for eligibility and performed remotely by an investigator unrelated to the clinic using a computer generated randomisation sequence (STATA V12, StataCorp LP, College Station, TX). The randomisation was stratified according to sex and BMI (low BMI: ≤30 and high BMI: >30). Randomisation was performed in randomly allocated blocks of 3, 6 or 9. "	"The randomisation list was provided to the study team who added eligible participants sequentially for each of the strata. The randomisation and participant database was only accessible by the HealthTrack study co-ordinator and administrator for security."	"Body weight (kg) was measured in an upright position in minimal clothing and without shoes using scales with a bio-electrical impedance component to also estimate body fat (%) (Tanita TBF-662, Wedderburn Pty Ltd., Ingleburn, NSW, Australia)."	"The intensive phase was completed by 298 participants (withdrawal rate 18%) and the 12 months follow-up by n=178 participants (withdrawal rate 39%)." Total sample withdrawal rate at 12 months = 178/377*100 = 47% 12-month follow-up rate per group: Control: 61/126*100 = 48%; Intervention: 45/120*100 = 36%; Intervention plus walnut: 72/126*100 = 57%	
206	**TarragaMarcos 2017**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	Weight objectively measured. Blood pressure was measured using an automated and calibrated electronic device, according to the recommendations of the Spanish Society of Arterial Hypertension.	There were no dropouts in G1 or G2 during the follow-up period, however 4 patients left G3 for personal reasons, leaving this group with 55 patients.	
207	**Teeriniemi 2018**	LOW	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"MS Excel was used by an independent researcher to produce a randomization list with random permuted blocks of 24."	NS	Weight was measured by a study nurse.	"A total of 108 participants (20.3%) did not return to the study centre for the 1-year visit (Fig. 2), and 49 participants dropped out between the 1-year and 2-year visits. Thus, 375 study subjects completed the study per protocol, and the attrition rate at 24 months was 29.5% (n = 157). No statistically significant differences amongst the dropouts were found between the study arms..."	
208	**ter Bogt 2009**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"... patients were allocated using computer-generated random numbers...".	NS	"Body weight was measured on an electronic scale with subjects wearing light clothing and no shoes..."	Low dropout rate after 1 year (9%).	
209	**The Look AHEAD Research Group 2010**	LOW	LOW	LOW	LOW	HIGH
	Assessment justification:	"Eligible participants are randomly assigned to either diabetes support and education or lifestyle intervention using a web-based data management system that verifies eligibility. Randomization is stratified by clinical center and blocked with random block sizes." (protocol)	"Eligible participants are randomly assigned to either diabetes support and education or lifestyle intervention using a web-based data management system that verifies eligibility. Randomization is stratified by clinical center and blocked with random block sizes." (protocol)	"Weight was measured in duplicate on a digital scale."	Retention rate: Year 1: DSE: 95.7%; ILI: 97.1%; Year 2: DSE: 93.5%; ILI: 94.9%; Year 3: DSE: 93.8%; ILI: 94.0%; Year 4: DSE: 93.0%; ILI: 94.1%; Year 5: DSE: 92.2%; ILI: 93.3%; Year 6: DSE: 90.6%; ILI: 92.0%; Year 7: DSE: 89.3%; ILI: 90.6%; Year 8: DSE: 88.3%; ILI: 89.9%.	Participants in the intervention arm who, during the first 6 months, failed to lose 10% of their initial weight were offered a weight loss medication (orlistat). Those who lost <5% were encouraged by their lifestyle counselor to try pharmacotherapy, whereas those who lost 5.0% to 9.9% were informed of medication and could receive it on request. Medication was not offered to individuals who lost greater than or equal to 10% of initial weight and maintain the loss. 523 out of 2570 participants in the ILI study arm took Orlistat as part of the intervention.

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
210	**Trepanowski 2017**	LOW	UNCLEAR	LOW	LOW	HIGH
	Assessment justification:	"Randomization was performed by a stratified random sampling procedure by sex, age (18-42 years and 43-65 years), and body mass index (25.0-32.5 and 32.6- 39.9). Block size ranged from 1 to 11 participants."	NS	"...body weight, which was measured monthly via a digital scale while the participant was in a hospital gown."	69.0% of participants completed the study. "The dropout rate was highest in the alternate-day fasting group (13 of 34 [38%]), relative to the daily calorie restriction group (10 of 35 [29%]) and control group (8 of 31 [26%])."	"Participants in the control group were instructed to maintain their weight throughout the trial and not to change their eating or physical activity habits... Controls who completed the 12-month trial received 3 months of free weight-loss counseling and a 12-month gym membership at the end of the study."
211	**Tsai 2010**	UNCLEAR	LOW	LOW	LOW	
	Assessment justification:	Randomization was blocked in groups of six.	Sealed envelopes.	Weight was assessed by a research assistant (B.J.I.), who was not masked to treatment assignment.	Control: 24/26 at 6mths; 25/26 at 12mths Brief counselling: 21/24 at 6mths; 22/24 at 12mths	
212	**Tuomilehto 2009**	LOW	LOW	LOW	LOW	
	Assessment justification:	"…the subjects were allocated randomly to two study groups by a study nurse according to a previously generated randomization plan.	Randomised by study nurse who did not take part in subsequent intervention.	The weight was measured at every visit.	Control: 10% drop out Intervention: 13% drop out	
213	**van de Glind 2017**	LOW	LOW	LOW	LOW	HIGH
	Assessment justification:	"The allocation sequence for each football club was generated by a computer programme written by a statistician not involved in the final analysis. The sequence was generated using randomised permuted blocks, stratified by club, with block lengths of 4 and 6, at random. The sequence was securely stored, with access restricted to those responsible for maintaining the randomisation system."	"Trial coordinators accessed randomisation allocation via a secure online portal." "It was not possible to mask participants or the fieldwork team to allocation, but the primary outcome measurements could not be accessed by either, and allocation was not known by study statisticians until after database lock."	"Body weight was measured using an electronic flat scale (Tanita HD366) with light clothing."	91% and 92% of participants per group attended the post program follow-up time point; 88% and 92% attended the 12-month follow-up.	Wait-list control, no blinding.
214	**vanWier 2011**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	After baseline measurements, the employee was randomised to one of the three study groups and either to a group receiving basic weight measurements (80% of each study group) or to a group receiving additional measurements (20% of each study group). This two-step randomisation meant that there were six groups an employee could be assigned to. Randomisation to these six groups was done by block randomisation, with each block containing 15 allocations. A computerized random number generator drew up an allocation schedule.	An administrative assistant put the group allocation in opaque sealed envelopes, numbered 1 to 1,500. These envelopes were taken to the locations of the baseline measurements and opened in the given order. The researchers were blinded for the allocation schedule, but were not blinded for allocation after randomisation. The participants were, in consequence of the nature of the intervention, not blinded for allocation after randomisation. Employees were not allowed to change groups after randomisation.	At baseline 'body weight and body height were assessed by the researchers.' 'Body weight and body height are assessed in all participants. Body weight is measured in kg, to the nearest 0.1 kg, with a digital scale (Seca 770; Seca GmbH & Co, Hamburg, Germany). Participants are wearing light clothing and no shoes. Body height is measured in m, to the nearest 0.001 m, with a portable stadiometer (Seca 214, Leicester Height Measure; Seca GmbH & Co, Hamburg, Germany). ' LOW In addition, in a questionnaire self-reported body weight is assessed. Participants are asked to weigh themselves wearing light clothing and no shoes. HIGH	At 24mths: Control 266/460 Internet 263/464 Phone 263/462 all <50%	
215	**Viegener 1990**	UNCLEAR	LOW	UNCLEAR	LOW	
	Assessment justification:	"randomly assigned" No further information given.	NS	NS	Of the 85 subjects who began the program, 22 (11 from each condition) dropped out during the treatment phase of the study; and 3 clients (2 from the standard, 1 from the intermittent group) who completed treatment declined participation in the maintenance phase meetings. The between-group differences in both initial and overall attrition rates were not significant, and subjects who dropped out did not differ significantly on pretreatment measures of body weight or percentage overweight from	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
					those who completed the program (all ps > .20).	
216	**Vissers 2010**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	Body weight was measured with a digital scale to the nearest 0.1 kg.	Less than 50% attrition at 12-month follow-up.	
217	**Volpe 2008**	UNCLEAR	UNCLEAR	LOW	UNCLEAR	HIGH
	Assessment justification:	"Participants were randomly assigned, in a stratified manner based on BMI, to one of three treatment conditions..."	NS	"Body weight was measured on a balance-beam scale accurate to 0.5 kg while the subject was wearing a swimsuit and no shoes."	NS	Raw data doesn't match up with information presented in graphs. Used raw data.
218	**von Gruenigen 2012**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"Randomization was stratified using block sizes of 6 or 8 by baseline BMI (25.0–39.9 versus >40)."	NS	"The RD weighed participants in private at the beginning of each session and weekly food/activity records were reviewed."	"Attrition in the trial overall was 21.3%. Six (14.6%) patients in the LI group versus 10 (29.4%) in UC did not complete the twelve-month assessments, p=0.159."	
219	**vonGruenigen 2008**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	“Participants were randomly assigned to LI or UC. Randomization was stratified according to patient BMI (25- 39.9 versus >40 kg/m2) using a stratified blocked randomization scheme in order to achieve	NS	“Participants were weighed in street clothes without shoes on a Detecto hand rail scale (model #6855) and weight was recorded to the nearest 0.1 kg.”	At 12-months: Control: 18/22 Intervention: 17/23	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
		comparability between the study groups based on BMI…"				
220	**Wadden 1986**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	"Subjects were stratified into three blocks based on degree overweight and were randomly assigned to one of three treatment conditions…" No further information given.	NS	"The dependent variables were weekly measures of weight (balancebeam scale), blood pressure (Banmanometer 260 sphygmomanometer) and depression, as assessed by the Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961)."	"The following analyses are all based on the 50 out of 59 subjects completing treatment. Attrition (15.3%) was spread evenly across conditions and included one pregnancy, three nondietrelated illnesses, and five work/transportation conflicts. A 1- year follow-up was completed on 48 of the 50 subjects finishing treatment (2 subjects in the combined treatment condition could not be reached)."	
221	**Wadden 1994**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	'randomly assigned' No further information given.	NS	Weight measured on a balance scale.	BDD: 17/21 at week 26 and 52; 16/21 week 78 VLCD: 28/28 week 9; 26/28 at week 26; 23/28 at week 52; 21/28 at week 78.	
222	**Wadden 1998**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	'randomly assigned' No further information given.	NS	Weight measured objectively.	119/128 at week 8; 115/128 at week 17; 113/128 at week 24; 99/128 at week 48; 77/128 at 23-months.	
223	**Wadden 2004**	UNCLEAR	UNCLEAR	LOW	LOW	UNCLEAR

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	NS	NS	“Body weight was measured using a balance-beam scale or an electronic digital scale (model 6800; Detecto). Participants were weighed in light clothing, without shoes, and were measured on the same scale throughout the study.”	Of the 43 women who were randomized to the BDD group, 37 (ie, 86%) remained in the study at week 20, 30 (70%) at week 40, and 26 (60%) at week 65. Of the 41 MR participants, 37 (90%), 31 (76%), and 28 (68%) remained at weeks 20, 40, and 65, respectively. Corresponding numbers for the 39 participants assigned to ND were 38 (97%), 34 (89%), and 28 (74%), respectively.	"(We note that an additional 21 women were recruited into the study and randomly assigned to a pilot intervention. It examined the efficacy in inducing weight loss of individual brief behavioral treatment [ie 20–25 min sessions] provided once a month. Results of this group [which was included to assess a new method of managing obesity in primary care practice] will be described in a separate report.)"
224	**Waleekhachonloet 2007**	UNCLEAR	UNCLEAR	LOW	LOW	UNCLEAR

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	NS	NS	Weight and waist circumference was assessed at baseline, months 3, 6 and 12 by a digital weighing scale and tape meter.	Less than 50% attrition at 12-month follow-up and less than 20% attrition per group at 6-month follow-up.	"Contamination of interventions could occur because participants in each setting were randomly assigned to the two groups, and they were aware of their groups". "The program providers shifted between individual behavior therapy and group behavior therapy every other week in order to eliminate the possible personal differences in providing the interventions."
225	**Weinstock 2013**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	"At baseline, 6 months, 1 and 2 years, a research nurse performed standardized assessments at the practice sites and measured height, weight..."	Percentage of sample followed up: 6-months: CC: 71%; IC: 65% 1 Year: CC: 62%; IC: 57% 2 Years: CC: 56%; IC: 48% 3 year: Total sample: 51.4%	
226	**West 2007**	UNCLEAR	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	NS	"women were randomized using a sequentially numbered, closed-envelope procedure."	"All assessments were conducted by trained interviewers blind to experimental condition. Body weight was measured without shoes using a calibrated balance beam scale."	Less than 20% and 50% of attrition at mid- and longer follow-ups.	
227	**West 2011**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"Senior centers were randomized by computer-generated random numbers to either a Lifestyle weight-loss program or to a cognitive training program designed to serve as an attention control, matched in contact time, duration, and structure."	NS	"Body weight was measured in street clothes without shoes using a calibrated digital scale (Tanita BWB 800)..."	"Follow-up assessments were conducted with 211 older adults (93%) at 4 months." 4-months: Intervention: 106/116*100 = 91.4%; Control: 96/112*100 = 85.7% 12-months: overall retention rate was 86% and there was no difference between arms.	
228	**West 2016**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	"Participants indicated availability for predetermined group times; these intact groups were stratified by baseline BMI percentile and then randomized using a biased coin approach."	NS	"Weight change was the primary dependent measure. Weight was measured in street clothes, without shoes, on a calibrated digital scale."	"Follow-up data were provided by 90% of randomized participants at 6 months and 81% at 18 months, with no difference between conditions in retention rates."	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
229	**Whelton 1998**	UNCLEAR	UNCLEAR	LOW	HIGH	HIGH
	Assessment justification:	"Overweight participants are randomly assigned, in a 2 x 2 factorial design, to one of the following four groups..." "Using a computer program, each participant's eligibility was confirmed prior to enrollment in the trial. Randomization was stratified by clinic and weight status to provide an even distribution of participants among the treatment groups at each site, and blocking of variable length (2, 4, and 8) was used to ensure temporal balance."	NS	"Detailed information was collected at baseline, and an interval medical history (including medication information and symptoms) and measurements of body weight and BP were obtained quarterly."	The protocol clearly states consistent follow-up for 36-months, however the primary paper describes an average follow-up for the 585 patients in the weight loss/no weight loss groups. "Study data were collected at the 4 eligibility and randomization contacts and at quarterly visits during follow-up from August 1992 until December 1995. Follow-up ranged from 15 to 36 months (median, 29 months)." The number of participants followed up for each of the groups of interest at each time point in unclear.	Weight change data is only reported as two of the four groups, combined as follows: the non-weight loss group (Sodium Reduction and Usual Care) and the Weight loss group (Weight loss intervention and combined [sodium intervention and weight loss intervention).
230	**Wilson 2010**	LOW	UNCLEAR	UNCLEAR	HIGH	
	Assessment justification:	"Participants were randomly assigned to 1 of the 3 treatment conditions using a computer-generated sequence with stratification across treatments and within site based on high and low negative affect assessed by the Beck Depression Inventory (BDI)25 with a cutoff point of 18."	NS	"Assessors were blinded to treatment condition", not clear if weight was self-reported.	"At posttreatment, dropout rates were 7%, 28%, and 30% for the IPT, BWL, and CBTgsh groups, respectively. Interpersonal psychotherapy had a significantly lower attrition rate than either BWL or CBTgsh (F1,193=8.3; P.001)." At end of treatment 79.7% from BWL group compared to 90.7% from the IPT group completed assessments.	
231	**Wilson 2016**	UNCLEAR	UNCLEAR	LOW	LOW	UNCLEAR
	Assessment justification:	Randomization of worksites into conditions. No further information given.	NS	Weight objectively measured.	Control: 147/234; Phone 165/233; Group 106/182 "drop out of approximately 40% of enrolled participants"	No indication that results were adjusted for clustering, and one worksite per condition
232	**Wilson 2016b**	UNCLEAR	UNCLEAR	LOW	HIGH	HIGH

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Six sites were matched based on the number of employees and randomly assigned to treatment or control groups.' 'Randomization of worksites into intervention or control groups"	NS	Weight objectively measured. Self-reported secondary outcomes (e.g. food intake and physical activity).	199 participants in the intervention sites and 46 participants at the control sites did not complete additional measures (post-test or follow-up) and were excluded from the final analyses. At the post-test, 236 participated in the intervention (39 who joined after baseline) and 359 participated in the control (52 who joined after baseline). At follow-up, 136 participants in the intervention group and 211 in the control group completed the surveys and measures. Removing the one control group from the final analysis because of contamination resulted in 227 (49.5%) participants in the final intervention and 135 (69.9%) in the final control cohort for outcome analyses. "LGM analyses controlled for group differences by examining change over time and maximized the number of participants in the final cohort." "LGM analyses that controlled for group differences by examining change over time and maximized the number of participants in the final cohort. " "Limitations of the study included ...dropout of approximately half of the participants from the study; ... LGM analyses, which enable imputation of data based on two data points "	'An additional 39 employees at the intervention sites and 76 employees from the control sites joined the study prior to the post-test, resulting in 236 and 359 participants respectively at post-test.'? 'Need to include all interested participants regardless of risk status, which likely diluted the impact.' '204 participants were excluded from analysis due to site deviation from protocol.' ('One control group experienced what Cook and Campbell referred to as compensatory rivalry. Contrary to study protocols, the site coordinator initiated a variety of intervention strategies (i.e., biggest loser contest, motivational interviewing sessions, group educational sessions) to ''make their site look better,'' according to an interview that was conducted with the site coordinator. This created a threat to the internal validity of the study, and as a result the site was removed from the final analyses. It could not be included as part of the treatment condition, as the strategies used differed from the planned intervention.')
233	**Wing 1985**	UNCLEAR	UNCLEAR	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	NS	NS	Weight objectively measured.	94% retention rate at 16-month follow-up.	
234	**Wing 1988**	UNCLEAR	UNCLEAR	LOW	LOW	UNCLEAR
	Assessment justification:	NS	NS	Weight was measured in street clothes, without shoes, using a balance beam scale.	Attrition less than 20% at program's end and less than 50% at 1-year follow-up	Participants have been omitted from the analysis both at baseline and 10-week program end.
235	**Wing 1988b**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	Weight was measured in street clothes, without shoes, using a balance beam scale.	Less than 20% attrition at post-intervention follow-up and less than 50% of attrition at 1-year follow-up.	
236	**Wing 1991**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	Weight was measured in street clothes, without shoes, using a balance beam scale.	Thirty-three (92%) of the 36 subjects completed both the posttreatment (week 20) and 1-year assessments (16/19 who entered the BT group and 17/17 who entered the VLCD group).	
237	**Wing 1996**	UNCLEAR	UNCLEAR	LOW	LOW	UNCLEAR
	Assessment justification:	NS	NS	Weight was assessed at the start of the program, the end of the product (26 weeks-6-months) and 1-year follow-up. Weight objectively measured.	91% (n=148 out of 163) participated at program's end (26-week, 6-months). n=146 participated at 1-year follow-up.	At the end of 26-weeks, subjects were given an opportunity to participate in a yearlong maintenance study examining either the effects of phone contact (Minnesota) or the effects of optional purchase of food boxes (Pennsylvania). Details of the maintenance study will be published separately, but neither maintenance strategy significantly affected weight change over the year of FU nor showed interactions with the initial 26-week study (p. 58, in pdf document page 3).

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
						Unclear how many participants chose to participate in the maintenance study.
238	**Wing 1998**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	Weight objectively measured.	Less than 50% attrition at 12-month follow-up.	
239	**Wing 2003**	UNCLEAR	UNCLEAR	LOW	LOW	
	Assessment justification:	NS	NS	Weight objectively measured.	Similar LTFU across groups; 68% follow-up at 11-months.	
240	**Wing 2010**	LOW	LOW	LOW	LOW	
	Assessment justification:	"Randomization was performed with the use of randomly permuted blocks of three or six, stratified according to clinical center, with random assignment concealed in tamper-proof envelopes."	Refer to 'Random sequence generation (selection bias)'.	Weight objectively measured.	"Assessments were attended by 94%, 90% and 86% of women at 6, 12 and 18 months, respectively, with no significant differences between treatment groups."	
241	**Yannakoulia 2008**	UNCLEAR	UNCLEAR	UNCLEAR	HIGH	UNCLEAR

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	NS	NS	NS	Fifty percent of patients were dropouts. Comparisons between completers and dropouts revealed no statistically significant differences between the two groups (with regards to history of diabetes, sex, HbA1c, BMI or waist circumference), apart from their age, with those not completing the intervention being younger compared to completers (53 ± 9 vs. 60 ± 9 yr, p = 0.05) (Table 2). A trend for an association between group and dropout was observed: 66.7% in the UC and 33.3% in the IC were dropouts (p = 0.07). To explore the effect of several factors in relation to the likelihood of being a dropout, a logistic regression was performed. Older people (p = 0.03) and those with newly diagnosed T2DM (p = 0.05) were more likely to complete the program, whereas a tendency for a negative association between attendance of the IC group and the likelihood of dropping out was found (p = 0.08).	"They were also informed about smoking risks and encouraged to stop or limit smoking" but no information on how many smoked and if smoking behaviour changed and no other mentions of smoking in the paper. This could be a potential confounder but without this information difficult to assess.
242	**Yardley 2014**	LOW	LOW	HIGH	LOW	HIGH

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Participants were then automatically randomised to one of the four groups by a computer algorithm that employed stratification by waist (allocating to the lower weight group if waist < 88 cm for women, < 102 cm for men), and a block size of 60 within each practice."	"The computer system immediately informed participants which group they had been allocated to, and sent an email to inform the practice nurse."	Intention was to weigh all participants in practice but due to low levels of attendance, self-report measures were completed at 12 months by a little less than half the sample.	Majority of participants followed-up at 12m	Two practices deviated from protocol by providing considerable weight management support to their usual care patients. Having detected substantial deviations from trial protocol in two practices, these analyses were repeated for the three practices that had followed the protocol correctly. We therefore carried out additional analyses of outcomes in the three practices that had followed protocol by not offering additional nurse support to those in the usual care group (see per protocol analyses below). Even in the per protocol practices, the level of nurse contact was somewhat less than intended, especially in the regular nurse support group, and the level of phone and email contact was very low. There was a skewed distribution of nurse support. Using our revised follow-up procedures, the follow-up for the primary outcome was increased slightly to 68.7% at 12 months, but the proportion having blood tests dropped to 36.9%.
243	**Yates 2009**	LOW	LOW	LOW	LOW	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
	Assessment justification:	"Participants were randomly assigned, using a block design, to receive either usual care, the PREPARE program, or the PREPARE program without pedometer use and were stratified by age and sex."	"Participant random assignment was conducted using opaque envelopes and a randomly generated number sequence by a member of our research team with no prior knowledge of recruited individuals other than their age and sex."	Weight measured objectively. Waist circumference: midpoint between the lower costal margin and iliac crest; Height: measured to the nearest 0.1 kg and 0.5cm, respectively.	Less than 50% attrition at 12-month follow-up.	
244	**Yates 2018**	UNCLEAR	UNCLEAR	LOW	HIGH	
	Assessment justification:	NS	NS	Weight objectively measured.	7/8 no lifestyle and 4/7 lifestyle followed up at one year.	
245	**Yeh 2003**	LOW	LOW	LOW	HIGH	
	Assessment justification:	Randomly assigned to one of two behavioral interventions using SAS software. Assignment to treatment group was made by a data analyst who had no contact with study subjects.	Subjects and investigators neither knew of treatment assignment in advance of eligibility assessment nor exercised any control over treatment assignment.	All outcome measures were collected by research assistants blinded to subjects' treatment assignment.	CBI At 6mths 25/37. LOW. At 12mths 14/37. HIGH. At 24mths 14/37. HIGH SBI At 6mths 24/35. LOW At 12mths 14/35. HIGH. At 24mths 13/35. HIGH "Of the 80 women randomly assigned, 72 (90%) women were available for baseline assessments, 49 (61.3%). remained at the 6-month assessment, 28 (35%) at 1 y and 27 (33.8%) at the end of the 2-y period. Of the subjects who returned at the 2y follow-up, 14 (51.9%) were from the CBI (control) group and 13 (48.1%) were from the SBI (intervention) group. The proportion of dropouts did not differ significantly between the groups at the 2-y follow-up (chi2, P = 0.95). t-Test analysis revealed	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
					that those who returned for follow-up and those who were lost to follow-up did not differ significantly with regard to age, baseline BMI, baseline weight, or baseline nutritional variables including total calories consumed, total fat, percent fat, and cholesterol intakes (data not shown).'	
246	**Yeh 2016**	UNCLEAR	UNCLEAR	UNCLEAR	LOW	
	Assessment justification:	NS	NS	"Anthropometric measures and fasting blood specimens were obtained at baseline, 6 months and 12 months to evaluate weight and cardiometabolic changes."	Attrition was less than 50% follow-up and there was a <20% difference in follow-up between groups at 6m.	
247	**Yin 2018**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	Participants were randomised in blocks of 10, using a randomization table by the study statistician. Enrollment and randomization were performed by trained research staff.	NS	Trained research staff measured the participant's weight, height and waist circumference with light clothes twice and the average was used. Participant's weight was recorded at each meeting.	Less than 50% of attrition (at 12 months, 19 int. and 5 cont. loss-to-follow-up)	

Study ID		Random sequence generation (Selection bias)	Allocation concealment (Selection bias)	Blinding of outcome assessment (Detection bias)	Incomplete outcome data (Attrition bias)	Other bias
248	**Zhang 2016**	LOW	UNCLEAR	LOW	LOW	
	Assessment justification:	The randomization schedules were generated using SAS PROC PLAN in SAS statistical software (SAS Institute Inc) and concealed until an eligible participant was ready for enrollment.	NS	Weight measured objectively.	Of 220, 211 (95.9%) completed the 6-month follow-up visit, and 208 (94.5%) completed the 12-month follow-up visit. ITT was followed, undertaking MCMC imputation method.	
249	**Zwickert 2016**	LOW	UNCLEAR	LOW	HIGH	
	Assessment justification:	Participants were entered into a database sequentially and a computer-generated randomisation list was used to allocate participants to the CBT + ITS or CBT + MTS conditions.	NS	Weight measured objectively.	15-month loss-to-follow-up >50% (15/31 ITS and 14/29 MTS follow-up at 15m) Participants who dropped out of the CBT group treatment had significantly higher baseline weight and BMI than those who continued in the trial (113.8 ± 23.3 vs. 99.6 ± 18.8 kg, p = .019, and 41.1 ± 8.3 vs.36.2 ± 5.4 kg/m2, p = .010).	

BP: Blood pressure; **HDL-C:** High density lipoprotein cholesterol; **Mths:** Months; **NS:** Not specified; **PR**: Pulse rate; **RCT**: Randomised controlled trial; **Wk/s**: week/s; **Yr.:** Year; **Yrs:** Years.

Table 3. Characteristics of included studies

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author#:	Notes:
Abed 2013	Australia	3, 6, 9, 12, 15	Patients with symptomatic atrial fibrillation	Control = 75 Weight management = 75	Weight; TC; HDL; SBP; FBG; Plasma insulin	High	Y	N	
Ackermann 2011	USA	6, 14	DPP population	Standard advice alone (controls) = 46 YMCA DPP intervention = 46	Weight; TC; HDL; SBP; HBa1C	Unclear	N	N/A	
Agras 1990	USA	3, 6, 12	Overweight women without additional psychological disorders	Computer alone = 30 Computer + group support = 30 Behaviour therapy = 30	Weight	Unclear	N	N/A	
Ahern 2017	UK	3, 12, 24	Adults with a BMI ≥ 28	Brief intervention = 211 12-week behavioural weight-loss programme = 530 52-week behavioural weight-loss programme = 528	Weight; TC; SBP; HBa1C; QoL	Low	N	N/A	
Almanza - Aguilera 2018	Spain	3, 12	Metabolically healthy obese women (definition based on the general criteria proposed by the International Diabetes Federation (IDF))	Control (general recommendations) = 48 Treatment (lifestyle weight loss intervention) = 67	Weight; TC; HDL; SBP; FG	High	Y	Y	Information provided.
Ames 2005	USA	3, 6, 12	College women who are overweight or obese	Standard behavioural treatment = NS Reformulated cognitive-behavioural treatment = NS	Weight	High	N	N/A	
Andersen 1999	USA	1, 2, 3, 4, 16	Women with obesity	Diet + Lifestyle Activity = 20 Diet + Aerobic Group = 20	Weight; TC:HDL ratio; TC; HDL; SBP	Unclear	Y	N	
Anderson 2014	Scotland	3, 12	Overweight or obese adults (aged 50 to 74 years) who had undergone colonoscopy after a positive faecal occult blood test result, as part of the national bowel screening programme, and had a diagnosis of adenoma confirmed by histopathology.	Control (weight loss booklet only) = 166 Intervention (BeWEL) = 163	Weight; TC; HDL; SBP; HBa1C; HOMA-IR; FG; Plasma insulin	Low	N	N/A	
Annesi 2016	USA	3, 6, 12, 24	Women who are obese	Comparison treatment = 55 Experimental treatment = 55	Weight	Unclear	N	N/A	

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
Annesi 2017	USA	3, 6, 12, 24	Women with class 1 or 2 obesity (BMI ≥ 30 < 40 kg/m2).	Control comparison group = 54 Experimental group = 53	Weight	Unclear	N	N/A	Information available from previous reviews.
Appel 2011	USA	6, 12, 24	Adults who were at least 21 years of age with obesity and had one or more cardiovascular risk factors (hypertension, hypercholesterolemia, or diabetes).	Control (Self-directed) = 138 Remote Support Only (N/A) = 139 In-Person Support = 138	Weight; TC; SBP; FG; QoL	Low	N	N/A	Information available from previous reviews.
Ard 2004	USA	6, 18	The target population consisted of generally healthy adults with above optimal BP including individuals with stage 1 hypertension who met Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure (JNC-VI) criteria for at least a 6-month trial of nonpharmacological therapy.	“advice only” comparison group = 273 “established” behavioural intervention group = 268 Established + DASH Intervention Group = 269	Weight; TC; SBP; FBG; Plasma insulin; QoL; Incidence HTN; Remission HTN	Low	N	N/A	Information available from previous reviews.
Ard 2018	USA	6, 12	General population of adults aged 65 and older who were at risk for cardiometabolic disease due to obesity and associated risk factors	Exercise Only = 54 Exercise + Diet Quality + Weight Maintenance = 55 Exercise + Diet Quality + Weight Loss = 55	Weight; TC; HDL; SBP; FG; QoL; Incidence CV morbidity	Low	N	N/A	Information available from previous reviews.
Ash 2006	Australia	3, 6, 12	General population and hospital referrals (one public hospital and one private hospital) overweight and obese	Control Group - Booklet only = 63 Individualised Dietetic Treatment = 66 Fat Booters Incorporated = 62	Weight	High	N	N/A	
Ashley 2001	USA	0.46, 0.69, 0.92, 1.15, 1.38, 1.61, 1.84, 2.07, 2.3, 2.53, 2.76, 3, 3.22, 3.45, 3.68, 3.91, 4.14, 4.37, 4.6, 4.83, 5.06, 5.29, 5.52, 5.75, 6, 6.21, 6.44, 6.67, 6.9, 7.36, 7.83, 8.29, 8.75, 9.21, 9.67,	General population (premenopausal women)	Control, Diet = 37 MR - Physician/Nurse led = 38 MR - Dietician lead = 38	Weight; TC; HDL; SBP; FG; Plasma insulin	High	N	N/A	Information available from previous reviews.

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
		10.13, 10.59, 11.05, 11.51, 12, 24							
Ashley 2007	USA	6, 12	Generally healthy overweight/obese women	Control - Traditional Food Group = 35 Meal Replacement Group = 35	Weight	Unclear	N	N/A	Information available from previous reviews.
Aveyard 2016	England	3, 12	General population	Advice only = 942 Advice plus weight loss programme = 940	Weight	Low	N	N/A	
Azar 2013	USA	3, 6, 15, 24	Pre-diabetes and/or metabolic syndrome	Control, Usual care = NS Self-directed = NS Coach-led = NS	Weight; TC; SBP; FG	Low	Y	N	
Bacon 2002	USA	3, 6, 12, 24	Women from the general population	Health at Every Size – control = NS Diet Group – intervention = NS	Weight; TC; HDL; SBP; QoL	Unclear	N	N/A	Information available from previous reviews.
Barnes 2017	USA	3, 6, 15	Overweight and obese with or without binge eating	Treatment as usual (N/A) = 30 Nutrition - ATTENTION CONTROL = 29 Motivational interviewing = 30	Weight; TC; HDL; SBP; HBa1c; FG	Unclear	Y	Y	Information provided.
Bartels 2015	USA	3, 6, 9, 12, 18	People with serious mental illness	Control, Fitness club membership = 106 IN SHAPE = 104	Weight; TC; HDL; SBP	Unclear	N	N/A	Information available from previous reviews.
Beavers 2017	USA	6, 18	Community-dwelling men and women 60–79 years of age	Weight loss = 82 Weight loss + Aerobic training = 86 Weight loss + Resistance training = 81	Weight; QoL	Unclear	Y	Y	Author confirmed that they could not provide additional data.
Beeken 2017	England	3, 6, 12, 18, 24	General population with obesity	Usual care = 270 10TT = 267	Weight; TC; SBP; FBG	Low	Y	Y	Information provided.
Bennett 1986	UK	4, 7, 10, 16	Females	Group Contact Control = NS Individual Contact Control = NS Insight Control = NS Cognitive Rehearsal = NS	Weight	Unclear	N	N/A	
Bennett 2012	USA	6, 12, 18, 24	Obese patients receiving hypertensive treatment	Control, Usual care = 185 Be Fit, Be Well = 180	Weight; SBP, QoL	Unclear	Y	Y	Data provided; Information available from previous reviews.
Bennett 2013	USA	6, 12, 18	General population	Control, usual care = 97	Weight; TC; HDL; SBP; FG; QoL	Unclear	Y	Y	Data provided.

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
				Weight gain prevention intervention = 97					
Berendsen 2011	The Netherlands	12, 24	Population with comorbidities or morbidly obese (BMI 35-40 kg/m2)	Standard combined lifestyle intervention = 164 Supervised combined lifestyle intervention = 247	Weight	Unclear	Y	Y	Data provided.
Berry 2014	USA	3, 12, 18	Parent and child dyad with overweight or obesity	Control = 162 Family based. Nutrition, exercise and coping skills intervention = 184	Weight; QoL	High	Y	Y	Data provided; Information available from previous reviews.
Bertram 1990	South Africa	4, 16	General population	Control - diet only = 15 Diet plus lectures = 15 Diet plus exercise = 15	Weight; Incidence CV mortality	High			
Bertz 2012	Sweden	3, 12	Women, 8-12-week post-partum	Control = 17 Diet Only = 17 Exercise only = 18 Intervention = 16	Weight; TC; SBP; FG; QoL	Unclear			Information available from previous reviews.
Beutel 2006	Germany	1.5, 12, 36	Patients referred for inpatient psychosomatic rehabilitation by the health and pension insurance companies on the basis of obesity plus additional psychiatric morbidity and a reduced or threatened work capacity	Behavioural therapy = 130 Psychodynamic treatment = 137	Weight	Unclear	N	N/A	
Bliddal 2011	Denmark	7.4, 8.3, 12	Overweight patients with primary knee osteoarthritis	Control, low-energy diet = 45 Intensive low-energy diet = 44	Weight	High	N	N/A	
Bo 2007	Italy	12, 24	General population (70-72% with metabolic syndrome)	Control standard care = 188 Intervention lifestyle by trained professional = 187	Weight; TC; HDL; SBP; FG	Low	N	N/A	
Brown 2014	USA	3, 6, 12	Clients at one of four community mental health programs, three in the Kansas City area and one in Las Vegas	Control = 66 RENEW = 70	Weight	Unclear	N	N/A	
Burke 2005	Australia	4, 16, 40	Hypertensive patients	Control usual care = 118 Low sodium + fish diet = 123	Weight; TC; HDL; SBP; HOMA-IR; FBG; Plasma insulin; QoL; Remission HTN	Unclear	Y	Y	Information provided.
Burke 2015	USA	6, 12, 18	General population	Standard behavioural weight loss treatment = 72 Self-efficacy enhancement plus standard behavioural weight loss treatment = 58	Weight; QoL	Unclear	N	N/A	

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
Cesa 2013	Italy	1, 12	People with BED	Integrated Multimodal Medically Managed Inpatient Program = 29 Cognitive Behavior Therapy = 30 VR-Enhanced Cognitive Behavior Therapy = 31	Weight	High	N	N/A	
Chaiyasoot 2018	Thailand	3, 8.75, 14.7	Obesity patients with metabolic syndrome	Control, Lifestyle Education Intervention = 52 Lifestyle Education Intervention plus Meal Replacements = 58	Weight; TC; HDL; SBP; HbA1c; HOMA-IR; FG; Plasma Insulin	Low	N	N/A	Information available from previous reviews.
Chee 2017	Malaysia	6, 12	Patients with type 2 diabetes	Usual Care = 115 tDNA Conventional Counseling = 57 tDNA Motivational Interviewing = 58	Weight; TC; HDL; SBP; HbA1c	Unclear	Y	N	Information available from previous reviews.
Cheskin 2008	USA	8, 20	Adult men and women with type 2 diabetes	Standard diet = 58 Meal replacement = 54	Weight; TC; HDL; SBP; HbA1c; FG; plasma insulin;	High	N	N/A	Information available from previous reviews.
Cheyette 2007	UK	4, 6, 12	Patients with type 2 diabetes on insulin treatment	Control = 20 Weight No More intervention group = 29	Weight; HbA1c; QoL	Unclear	N	N	
Christensen 2012	Denmark	3, 12	Female overweight healthcare workers	Reference group = 44 Intervention group = 54	Weight; SBP	Low	N	N/A	
Cleo 2018	Australia	3, 12	General population	Wait list control (N/A) = 25 TTT Top Ten Tips habit formation = 25 DSD Do Something Different online software = 25	Weight	Unclear	N	N/A	
Cole 2013	USA	3, 12	Department of Defense beneficiaries enrolled in the TRICARE health care system living in the San Antonio, Texas, area; Diagnosis of pre - diabetes.	Control - individualised counselling = 31 Intervention- shared medical appointment = 34	Weight; TC; HDL; SBP; HbA1C; FG	Unclear	N	N/A	
Conroy 2015	USA	3, 12	General population	Self-guided = 50 Interventionist led = 49	Weight; SBP	Unclear	N	N/A	
Cooper 2010	UK	6, 10, 16, 22, 34, 46	General population	Guided Self-Help Control = 51 Behaviour Therapy = 50 Cognitive Behaviour Therapy = 49	Weight	Low	N	N/A	

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
Cousins 1992	USA	3, 6, 12	General population	Control = 56 Individual = 56 Family = 56	Weight	Unclear	N	N/A	
Craighead 1989	USA	3, 12	General population	Control, minimal contact = 20 Contracted Exercise = 20 Supervised Exercise = 22	Weight	Unclear	N	N/A	
Crowley 2017	USA	3.7, 7.4, 11.1	Veterans with type 2 diabetes	Group Medical Visit = 136 Intensive Weight Management Group Medical Visit = 127	Weight; TC; HDL; SBP; HbA1c	High	Y	N	Information provided.
Dale 2009	New Zealand	4, 8, 12, 24	Insulin resistant adults	Control = 23 Modest = 31 Intensive intervention = 25	Weight	Unclear	Y	N	Information available from previous reviews.
Dalziel 2006	France	2, 12, 48	Patients who had experienced their first myocardial infarction.	Control = 303 Experimental = 302	Weight; TC; HDL; SBP; Final follow-up only: Incidence CV morbidity; Incidence CV mortality	High	N	N/A	
Damschroder 2014	USA	3, 12, 18, 24	Veterans	Control, MOVE - usual care = 159 ASPIRE group, individual telephone counselling = 162 ASPIRE group, group counselling = 160	Weight; HDL; SBP; HbA1c; QoL	Unclear	N	N/A	Information available from previous reviews.
Daubenmier 2016	USA	3, 6, 12, 18	Adults with obesity	Active control intervention = 94 Mindfulness Intervention = 100	Weight; TC; HDL: SBP; HbA1c;	Low	N	N/A	
Daumit 2013	USA	6, 12, 18	Psychiatric patients	Control, Usual care = 147 ACHIEVE = 144	Weight; TC; HDL; SBP; FG; QoL; One timepoint only: Plasma insulin; Incidence CV morbidity; Incidence T2DM	Unclear	N	N/A	Information available from previous reviews.
de Zwaan 2017	Germany and Switzerland	2, 4, 10, 22	Participants had to meet the diagnostic criteria for Binge Eating Disorder or Subsyndromal Binge Eating Disorder	Internet-based guided self-help treatment = 89 Cognitive Behavioural Therapy = 89	Weight	Unclear	Y	Y	Data provided.
Delahanty 2015	USA	6, 12	Patients with type 2 diabetes	Dietitian Referral group = 29 Group lifestyle intervention = 28	Weight; TC; SBP; HbA1c; One timepoint only: Remission HTN	High	Y	Y	Data provided.

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
deRoon 2017	Netherlands	4, 12	General population	Control = 48 Diet = 97 Exercise = 98	Weight; QoL	High	N	N/A	
deVos 2016	Netherlands	6, 12, 18, 24, 30, 80	Females 50 to 60 years	Control = 204 Tailor-made lifestyle intervention = 203	Weight; TC; HbA1c; QoL	Unclear	Y	Y	Data provided.
DeZwaan 2005	USA	3, 4.1, 6, 7, 12, 18	Women with BED	BED = 35 BED plus CBT = 36	Weight	High	N	N/A	
Diabetes Prevention Program R G 2009	USA	6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96, 102, 108, 114, 120, 126, 132, 138, 144, 150, 156, 162, 168, 174, 180, 186	People at high risk for type 2 diabetes (impaired glucose tolerance)	Placebo = 1082 Metformin (N/A) = 1073 Lifestyle = 1079	Weight; HDL; SBP; HbA1c; FG; QoL; Incidence T2DM	High			Information available from previous reviews.
Djuric 2002	USA	3, 6, 12	Women with stage I or II breast cancer diagnosed within the past 4 years and free of any recurrence.	Control = 13 Weight Watchers = 11 Individualized group = 13 Comprehensive group = 11	Weight; TC:HDL ratio; TC; HDL; FG; Plasma insulin	High	Y	N	Information available from previous reviews.
Donnelly 2013	USA	6, 18	General population	Phone Group = 201 Face-to-Face Group = 194	Weight	Low	N	N/A	
Duncan 2016	New Zealand	4, 12	Primary health care patients with an elevated 5-year cardiovascular disease risk	Control = 162 Intervention = 158	Weight; TC:HDL ratio; TC; HDL; SBP.	High	N	N/A	
Eakin 2014	Australia	6, 18, 24	Patients 20–75 years with type 2 diabetes	Usual care = 151 Telephone intervention = 151	Weight; TC:HDL ratio; TC; HDL; SBP; HbA1C	Low	Y	Y	Data provided
Eaton 2016	United States	6, 12, 18, 24	General population	Control, Standard Intervention = 106 Enhanced Intervention = 105	Weight	Low	N	N/A	Information available from previous reviews.
Fahey 2018	Texas, United States	4, 12	Active duty military personnel	Self-paced condition = 124 Counselor- initiated condition = 124	Weight	High	N	N/A	
Fernandez-Ruiz 2018	Spain	6, 12, 24	General population (Community Care Centre population (health centre patients))	Control = 37 Intervention (healthy eating, exercise & CBT) = 37	Weight; TC; SBP; HbA1C; QoL; Incidence CV mortality	Unclear	N	N/A	
Finkelstein 2017	Singapore	4, 8, 12	General population	Control = 54 Financial Reward = 107	Weight	Low	N	N/A	
Fisher 2011	USA	6, 12	Community (overweight, premenopausal women)	Diet only = 29 Diet + aerobic training = 43	Weight; FG; Plasma insulin	Unclear	N	N/A	

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
				Diet + resistance training = 54					
Foley 2016	USA	6, 12	Obese (BMI: 30.0-44.9 kg/m2) community health center patients with a diagnosis of hypertension, diabetes and/or hyperlipidemia	Usual care (Control) = 175 Weight loss intervention = 176	Weight; TC; HDL; SBP; HbA1c; FG; QoL	Unclear	Y	Y	Data provided.
Foreyt 1993	USA	3, 12, 24	General population	Control (N/A) N = 38 Exercise only = 43 Diet only = 42 Exercise plus diet = 42	Weight	Unclear	N	N/A	
Forman 2013	USA	9, 15	General population	Standard Behavioural Treatment = 54 Acceptance-Based Behavioural Treatment = 74	Weight	Low	Y	N	
Forman 2016	USA	6, 12, 24, 36	General population	Standard Behavioural Treatment = 90 Acceptance-Based Treatment = 100	Weight; QoL	Unclear	N	N/A	
Foster-Schubert 2012	USA	6, 12	Post-menopausal women	Control- usual care = 87 Calorie reduced diet = 118 Aerobic exercise (N/A) = 117 Intervention - diet and exercise = 117	Weight; HOMA-IR; FG; Plasma insulin; QoL	Unclear	N	N/A	
Freitas 2017	Brazil	3, 6, 12	30 to 60-year-old patients with moderate/severe asthma	Weight loss program + Sham = 27 Weight loss program + Exercise = 28	Weight	High	Y	Y	Data provided.
Fuller 2012	Australia	1, 2, 3, 6, 9, 12	Male or female residents of inner western Sydney aged 18—65 years, with a BMI of 25—45 kg/m^2	Western diet group = 35 Korean diet group = 35	Weight; TC; HDL; SBP; FG; One timepoint only: Plasma Insulin	Unclear	Y	N	
Gold 2007	USA	6, 12	General population	Commercial programme eDiets = 62 Structured VTrim = 62	Weight	Unclear	N	N/A	Information available from previous reviews.
Goodwin 2014	Canada; USA	6, 12, 18, 24	Postmenopausal women diagnosed with T1-3N0-3M0 breast cancer	Mailed-based intervention = 167 Individual lifestyle intervention = 171	Weight; QoL	Unclear	Y	N	Author response received.
Gorin 2013	USA	6, 18	General population	Standard Behavioural Weight loss = 99 Enhanced home environment behavioural weight loss = 102	Weight	Unclear	N	N/A	Information available from previous reviews.
Green 2015	USA	6, 12, 24	People taking antipsychotic medications	Usual care = 96 STRIDE = 104	Weight; HDL; SBP; FBG; QoL	Unclear	Y	N	Information available from previous reviews.
Grilo 2011	USA	5.5, 11.5, 17.5	Adults up to 60 years of age who meet full DSM–IV research criteria for BED	Cognitive Behavioral Therapy (CBT) = 45 Behavioral weight loss (BWL) = 45 CBT + BWL (N/A) = 35	Weight	Unclear	Y	Y	Information provided.

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
Grilo 2014	USA	4, 10, 16	Patients who were obese and met DSM-5 criteria for BED	Placebo = 27 Placebo/CBTsh = 25 Sibutramine (N/A) = 26 Sibutramine/CBTsh (N/A) = 26	Weight	Low	N	N/A	
Hageman 2017	USA	6, 18, 30	General population (women from underserved rural communities)	Web-based only = 101 Web-based discussion = 100 Web-based email = 100	Weight; TC; HDL; SBP; FG	Low	Y	Y	Information provided; Information available from previous reviews.
Hakala 1993	Finland	0.5, 3, 8 12, 24, 60	General population	Individual community-based counselling = 28 Group in-patient rehabilitation = 30	Weight	Unclear	N	N/A	
Hanson 1976	USA	2.5, 5, 12	General overweight and obese population.	No treatment control condition (N/A) = 10 Attention-placebo control condition = 11 Conventional self-management condition = 7 Programmed text with low therapist-group contact = 12 Programmed text with high therapist-group contact = 13	Weight	High	N	N/A	
Hardcastle 2013	UK	6, 18	Primary care patients	Control = 131 MI counselling intervention = 203	Weight; TC; HDL; SBP	Unclear	N	N/A	
Harrigan 2016	USA	6, 12	Breast cancer survivors	Usual Care Group = 33 Telephone Weight Loss Counseling = 34 In-Person Weight Loss Counseling = 33	Weight; FG	High	Y	Y	Data provided.
Harris 2017	UK	6, 12	Adults with an intellectual disability	Waist Winners Too = 24 TAKE 5 = 26	Weight; QoL	Low	N	N/A	
Hunt 2014	UK	3, 12	Male football fans	Control, Wait-list = 373 FFIT = 374	Weight; SBP; QoL	High	N	N/A	Information available from previous reviews.
Huseinovic 2016	Sweden	3, 12, 24	Women 6–15 week postpartum	Control Group = 56 Diet behaviour modification Group = 54	Weight; QoL	Low	N	N/A	
Irwin 2003	USA	3, 12	General postmenopausal female population	Control Group = 86 Exercise group = 87	Weight; HOMA-IR; FG	Low	N	N/A	Information available from previous reviews.
Jackson 1982	Australia	1, 4, 7, 10, 16	Females with intellectual disabilities ("mentally retarded females").	Control = 6 Treatment = 6	Weight	Unclear	N	N/A	
Jackson 2018	Italy	1, 7, 13, 19	Italian women with BED	Brief strategic therapy = 30 Cognitive-behavioral therapy = 30	Weight	Unclear	N	N/A	

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
Jakicic 2011	USA	6, 12, 18	Overweight, sedentary adults	Self Help Group = 89 Moderate Physical Activity = 82 High Physical Activity = 98	Weight	Unclear	N	N/A	
Jakicic 2015	USA	6, 12, 18	Adults up to 55 years of age who are overweight or obese.	Standard behavior weight loss interventions group = 71 ADOPT group = 71 MAINTAIN Group (N/A) = 71	Weight	Low	N	N/A	
Jebb 2011	Australia, Germany, UK	2, 4, 6, 9, 12, 18, 24	Adults with a BMI 27-35 and at least one additional risk factor for obesity-related disease	Standard care = 395 Commercial programme = 377	Weight; TC:HDL ratio; TC; SBP; FG; Incidence T2DM; Remission T2DM	Low	Y	Y	Data provided; Information available from previous reviews.
Jebb 2017	UK	3, 6, 12, 36	Obese adults seeking support to lose weight	Usual care = 140 Low energy total diet replacement programme = 138	Weight; TC; HDL; SBP; HbA1c; FG; Plasma insulin; QoL; One timepoint only: HOMA-IR	Low	N	N/A	
Jeffery 1995	USA	6, 12, 18, 30	Adults 25-45 years with overweight or obesity.	Control group = 40 Standard Behavioural Therapy (SBT) = 40 SBT + Incentives (I) = 41 SBT + Food Provision (FP) = 40 SBT + FP + I = 41	Weight	Unclear	N	N/A	Information available from previous reviews.
Jeffery 2003	USA	6, 12, 18 30	Overweight population	Standard behaviour therapy = 93 High physical activity = 109	Weight	Unclear	Y	Y	Information provided.
Jenkins 2017	Canada	6, 18	General population in the city of Toronto	Control = 486 Dietary advice only = 145 Food basket only = 148 Food and advice = 140	Weight; TC:HDL ratio; SBP; FG	High	N	N/A	
John 2011	USA	7.4, 17	Adults 30 to 70 years of age with obesity	Control = 22 Deposit contracts group = 44	Weight	High	Y	N	
Jolly 2011	UK	3, 12	Obese or overweight men and women with a comorbid disorder identified from general practice records, with a raised BMI recorded within their primary care notes within the previous 15 months. The BMI threshold for invitation is that which makes them eligible for primary care obesity management services within the NHS and varies according to ethnic group and the	Minimal intervention comparator = 100 Choice (N/A) = 100 Pharmacy =70 General practice = 70 Weight Watchers = 100 NHS Size Down = 100 Rosemary Conley = 100 Slimming world = 100	Weight	High	N	N/A	Information available from previous reviews.

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
			presence or absence of comorbidities.						
Jones 1986	UK	4, 16	Female adults	Individual = 21 Group = 17 Leaflet Individual = 22 Leaflet Group = 20 Diary Individual = 20 Diary Group = 19 Leaflet Diary Individual = 21 Leaflet Diary Group = 20	Weight	High	N	N/A	
Jones 1999	USA	3, 6, 12, 18, 24, 30	Patients with hypertension above the age of 50	Control Group = NS Weight Loss Group = NS	Weight	Unclear	Y	Y	Information provided.
Katula 2013	USA	6, 12, 18, 24	People with pre-diabetes (fasting blood glucose=95 mg/dl ≤FBG ≤125)	Enhanced Usual Care Comparison Condition = 150 Lifestyle Weight-Loss Intervention = 151	Weight; HDL; SBP; HOMA-IR; Incidence T2DM	Low	Y	N	
Katzer 2008	New Zealand	2.3, 6.3, 14.3, 26.3	Women with at least one other cardiovascular risk factor.	Mail-delivered 'non-dieting' program (P3) = 101 Group 'non-dieting' program (P2) = 62 Group 'non-dieting' program plus Relaxation (P1) = 62	Weight; SBP	Unclear	N	N/A	
Keogh 2014	Australia	2, 12	General population	Intermittent dieting = 39 Continuous dieting = 36	Weight	High	N	N/A	
Keranen 2009	Finland	1,3, 4.6, 5, 6, 12, 18	General population	Short-term counselling = 47 Intensive counselling = 35	Weight	Low	N	N/A	Information available from previous reviews.
King 1989	USA	7, 12, 24	Men aged 30 - 59 years.	Control (N/A) = 52 Exercise only = 52 Diet only = 51	Weight; TC/HDL ratio; TC	High	N	N/A	
Kingsley 1977	USA	2, 5, 8, 11, 14	General population	Social Pressure = 11 Group Behavioural = 13 Individual Behavioural = 12 Social Pressure – Booster = 11 Group Behavioural – Booster = 13 Individual Behaviour – Booster = 12	Weight	High	N	N/A	
Knauper 2018	Canada	3, 12, 24	Individuals with overweight or obesity	Standard DPP = 101 Enhanced DPP = 107	Weight; TC/HDL ratio; SBP; HbA1c	High	Y	Y	Data provided.
Kuller 2012	USA	6, 18, 30, 48	Postmenopausal females	Control - health education = 255 Intervention - lifestyle change = 253	Weight; HDL; SBP; FG	Low	Y	Y	Information provided. Information available from previous reviews.

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
Kumanyika 2012	USA	12, 24	General population (65% African American, non-Hispanic black)	Basic programme = 137 Basic plus programme = 124	Weight; SBP	Low	N	N/A	Information available from previous reviews.
Leahey 2014	USA	3, 6, 12	General population	SURI alone = 46 SURI plus Internet behavioral weight loss program = 90 SURI plus Internet behavioral weight loss program plus optional group sessions = 94	Weight	Unclear	N	N/A	
Leahey 2015	USA	3, 12	Adults	SURI1 Internet behavioral weight loss = 91 SURI1 Internet behavioral weight loss1incentives = 89 SURI1 Internet behavioral weight loss 1 group option = 88	Weight	Unclear	N	N/A	
Lejeune 2003	The Netherlands	3, 12.2	Men with obesity	Diet = 20 Diet plus exercise = 20	Weight	Unclear	Y	N	Information available from previous reviews.
Ley 2004	New Zealand	6, 12, 24, 36, 60	Workers with impaired glucose tolerance ((2 h blood glucose 7.8–11.0 mmol/l) and a further 114 (2%) had high normal blood glucose concentrations (7.0–7.8 mol/l))	Control diet = 70 Reduced-fat = 66	Weight; TC/HDL ratio; TC; HDL; SBP	High	N	N/A	
Li 2016	China	1, 12	Adults with Type 2 Diabetes Mellitus who are overweight (BMI ≥ 24 kg/m2)	Usual care group = 60 Diet group = 79 50g-oats group = 80 100g-oats group = 79	Weight; TC; HbA1c	Unclear	Y	N	
Li 2005	USA	0.5, 1.5, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Adults previously diagnosed and being treated for type II Diabetes Mellitus who are obese	Individualized diet plan = 52 Soy-based meal replacement = 52	Weight; TC; HbA1c	High	Y	N	
Lindstrom 2003	Finland	12, 24, 36, 48, 60, 72, 86, 96, 108, 120	Impaired glucose tolerance (IGT); People at high risk for type 2 diabetes	Control = 257 Intervention = 265	Weight; TC/HDL ratio; TC; HDL; SBP; HbA1c; FBG; Incidence DM; Incidence CVD morbidity; One timepoint only: Plasma insulin	High	Y	N	Information available from previous reviews.
Liss 2016	USA	6, 12	Adults with type 2 diabetes and a BMI ≥ 24 kg/m2	Standard care arm = 167 Standard care plus group-based lifestyle intervention = 164	Weight; TC; SBP; HbA1c	Low	Y	Y	Data provided.

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
Little 2016	UK	6, 12	General population	Control, Nurse follow-up = 279 Web-based support with minimal support (Remote) = 270 Web-based + nurse support (face to face) = 269	Weight; TC; HDL; SBP; HbA1c; FG; QoL	Unclear	N	N/A	Information available from previous reviews.
Long 1983	UK	4, 16	Overweight females 18-60 years of age	Individual Dietetic Counselling Group = 12 Group Dietetic Counselling Group = 12 Group Dietetic Counselling and behaviour therapy Group = 12	Weight	Unclear	N	N/A	
Lowe 2018	USA	6, 12, 18, 24	Community	Behavior therapy = 90 Behavior therapy plus meal replacements = 91 Home food environment = 81	Weight	Unclear	N	N/A	Information available from previous reviews.
Ma 2015	USA	6, 12	Obese adults with uncontrolled asthma	Control, Enhanced usual care = 165 Diet and counselling = 165	Weight	Low	N	N/A	Information available from previous reviews.
Manning 1994	UK	3, 6, 12, 48	Diabetic males and females	Clinic visit = 37 Behavioural = 38 Home visits = 35 Dexfenfluramine (N/A) = NS Routine usual care (N/A) = NS	Weight; HbA1c	Unclear	N	N/A	
Manzoni 2016	Italy	1.4, 12,	Obese patients admitted to the obesity unit of the Istituto Auxologico Italiano, Verbania, Italy for the treatment of obesity and related comorbidities	Control, Standard behavioral inpatient program = 52 Cognitive–behavioral therapy = 54 CBT + Virtual reality = 57	Weight	High	N	N/A	Information available from previous reviews.
Marniemi 1990	Finland	2.5, 6, 12	General obese and overweight population	Control group = 42 Lactovegetarian weight reduction group = 31 Mixed diet weight reduction = 37	Weight	Unclear	N	N/A	
Martin 2008	USA	6, 9, 12, 18	African American women	Control, Standard Care = 69 Tailored physician/lifestyle counselling = 68	Weight	High	N	N/A	Information available from previous reviews.
Mefferd 2007		4, 12	Adult breast cancer survivors with a BMI $\geq$ 25.0 kg/m^2	Control = 29 Intervention = 56	Weight; TC	Unclear	Y	Y	Data provided; Information available from previous reviews.
Melchart 2017	Germany	3, 6, 9, 12	Adults aged 18–67 years who are moderately overweight	Control group = 57 Intervention group = 109	Weight; TC/HDL ratio; SBP: FG	Low	Y	Y	Data provided.

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author#:	Notes:
Melin 2003	Sweden	3, 6, 12, 24	Obesity with complication diagnoses (i.e. diabetes type 2, hypertension, dyslipoproteinemia, polycystic ovary disease and apnoea disorder).	Control, less intensively treated = 21 Intensively treated = 22	Weight; SBP; FG; Plasma insulin	Unclear	N	N/A	Information available from previous reviews.
Menard 2005	Canada	6, 12, 18	Patients with type 2 diabetes	Control - usual care = 36 Intervention - intensive multitherapy = 36	Weight; TC/HDL ratio; SBP; HbA1c; QoL	Unclear	Y	N	Information available from previous reviews.
Mengham 1999	UK	6, 12	Patients with diabetes, aged less than 75 years, with BMI above 25kg/m^2	Control = NS Intervention = NS	Weight; TC	Unclear	N	N/A	Information available from previous reviews.
Mensinger 2016	USA	6, 24	General population	Control, Weight Neutral Program = 40 Weight Loss Program = 40	Weight; TC/HDL ratio; TC; HDL; SBP; FG; QoL	High	N	N/A	Information available from previous reviews.
Messier 2013	USA	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18	Ambulatory, community-dwelling persons age 55 years or older with mild or moderate knee osteoarthritis	Exercise only = 150 Diet-induced weight loss only = 152 Diet-induced weight loss plus exercise = 152	Weight; QoL	Unclear	Y	Y	Data provided.
Miller 2002	USA	2, 12	NS	Control Group (Monitoring) = 23 Lifestyle Intervention = 22	Weight; SBP	Low	Y	N	Information available from previous reviews.
Mitsui 2008	Japan	3, 12	50-69-year-old adults	Control = 22 Intervention = 24	Weight; TC; HDL; SBP; FG	Unclear	Y	N	
Molenaar 2010	Netherlands	6, 12	General overweight or obese population	Nutritional counselling group (diet D, group) = 67 Nutritional plus exercise counselling group (diet + exercise (D + E) group) = 67	Weight	Unclear	N	N/A	
Moreno 2014	Spain	0.5, 2, 4, 6, 8, 10, 12, 18, 24	Patients with obesity and prediabetes attending a hospital obesity unit (Obesity Unit, Hospital Gregorio Maranon, Madrid)	Low-calorie diet = 39 Very low-calorie-ketogenic diet = 40	Weight; TC; HDL; HbA1c; FG	Unclear	Y	N	Information available from previous reviews.
Morgan 2010	Australia	3, 6, 12	Males 18-60 years of age who are overweight or obese.	Control (Information and self-help) = 31 SHED-IT (Internet) group = 34	Weight; SBP	Low	N	N/A	Information available from previous reviews.
Muggia 2014	Italy	6, 12	Overweight and obese patients	Standard care group = 83 Brief CBT group = 80	Weight; TC; HDL; SBP; HOMA-IR; FG; Plasma insulin	High	N	N/A	
Munsch 2003	Switzerland	4, 16	Adults with obesity	GP control = 17 Clinic BASEL = 52 GP BASEL = 53	Weight	High	N	N/A	Information available from previous reviews.

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
Munsch 2007	Switzerland	2, 4, 7, 10, 16, 76	Adults with BED	Group BWLT = 36 Group CBT = 44	Weight	Unclear	Y	Y	Data provided.
Murphy 1982	USA	2.5, 3, 5.5, 8.5, 14.5, 26.5,	General population (married couples)	Waiting list (N/A) = NS Supportive = 11 Alone-1 Party = 13 Alone-2 Party = 13 Couple-1 Party = 13 Couple-2 Party = 12	Weight	Unclear	N	N/A	
Nakata 2014	Japan	3, 6, 18, 30	Japanese adults	Control (N/A) = 63 Education-only = 62 Group-based support = 63	Weight; HDL; SBP; FG	Unclear	Y	Y	Data provided.
Nanchahal 2012	UK	6, 12	Adults with BMI ≥ 25 kg/m2	Usual care control = 190 CAMWEL Intervention = 191	Weight; SBP; QoL	Unclear	Y	Y	Data provided; Information available from previous reviews.
Ng 2015	UK	4, 12	Chinese patients with moderate to severe obstructive sleep apnoea (OSA) diagnosed on portable home sleep monitoring.	Control group = 43 Lifestyle modification program = 61	Weight; TC; FG; QoL	Unclear	Y	Y	Data provided.
Nicklas 2004	USA	6, 18	Community-dwelling sedentary adults 60 years of age or above with symptomatic knee osteoarthritis.	Healthy lifestyle control = 78 Exercise only = 80 Diet only = 82 Diet plus exercise = 76	Weight	Unclear	N	N/A	
Nicklas 2009	USA	4.6, 10.6, 16.6	Postmenopausal women with abdominal obesity	Calorie restriction (CR) Only = 34 CR + Moderate-Intensity = 40 CR + Vigorous-Intensity = 38	Weight; HDL; Glucose tolerance	Unclear	Y	Y	Data provided.
Nilsen 2011	Norway	6, 12, 18	Individuals at high risk for type 2 Diabetes	Control, Individual Physician Group = 104 Individual Plus Interdisciplinary Group = 109	Weight; TC; HDL; SBP; HbA1c; FG	Low	Y	Y	Data provided; Information available from previous reviews.
Nordby 2012	Denmark	3, 9, 15	Younger (age: 20–40 years), sedentary, and only moderately overweight (BMI: 25–30 kg/m^2) men.	Control = 15 Training and increased diet (N/A) = 13 Training = 17 Energy-reduced diet = 15	Weight; TC; SBP; HbA1c	High	Y	Y	Data provided.
Nurkkala 2015	Finland	0, 9, 24, 36	General population between 18-65 years	Control = 30 Intervention group = 90	Weight	Unclear	N	N/A	
Oldroyd 2006	UK	6, 12, 24	Men and women of European origin	Control group = 39 Intervention group = 39	Weight; TC; FG	Unclear	N	N/A	Information available from previous reviews.
Pan 1997	China	24, 48, 72, 96, 120, 144, 168, 192, 216, 240	Chinese participants with impaired glucose tolerance	Control = 138 Intervention group (Exercise: n=155;	Weight; TC; SBP; FG; Incidence CV morbidity; Incidence	High	Y	N	

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author#:	Notes:
		252, 264, 276, 288, 360		Diet: n = 148; Diet plus exercise: n = 135) = 438	CV mortality; Incidence T2DM; One timepoint only: HbA1c				
Parikh 2010	USA	3, 6, 12	Adults with BMI ≥ 25 kg/m^2 and prediabetes	Control = 49 Intervention = 50	Weight; SBP; HbA1c	Unclear	Y	N	
Patel 2016	USA	6, 12	Adults 18 to 70 years	Control group = 50 Standard premium discount = 51 Immediate premium discount = 50 Daily lottery incentive = 50	Weight	Unclear	N	N/A	
Pavlou 1989a	USA	3, 8, 18, 36	General male population	Balanced caloric-deficit diet plus supervised exercise = 5 Balanced caloric-deficit diet - No exercise = 6 Protein-sparing modified fast plus supervised exercise = 5 Protein-sparing modified fast - no exercise = 5	Weight	Unclear	N	N/A	Information available from previous reviews.
Pavlou 1989b	USA	1, 2, 8, 18	General male population	Balanced caloric-deficit diet - No exercise = 11 Balanced caloric-deficit diet plus supervised exercise = 10 Protein-sparing modified fast - no exercise = 16 Protein-sparing modified fast plus supervised exercise = 16 DPC-70 - no exercise = 13 DPC-70 - plus supervised exercise = 10 DPC 800 - no exercise = 16 DPC 800 plus supervised exercise = 18	Weight	Unclear	N	N/A	Information available from previous reviews.
Pearce 1981	Canada	2.3, 5.3, 8.3, 14.3	Women, 20-60 years of age who were at least 20 Ibs. (9.09 kg) and 20% overweight	Alternative treatment = 14 Wives alone = 13	Weight	Unclear	N	N/A	
Pedersen 2013	Copenhagen	3, 12	Adults with stable coronary artery disease who are overweight or obese	Aerobic interval training = 35 Low energy diet = 35	Weight; TC/HDL ratio; SBP; HbA1c	Unclear	N	N/A	
Pekkarinen 2015	Finland	4, 16, 30	Obese refereed patients at an outpatient obesity clinic, Peijas Hospital, Helsinki University Central Hospital	Control, Follow up without intervention = 99 One-year maintenance program = 100	Weight; QoL	Low	N	N/A	Information available from previous reviews.
Perri 1984	USA	3, 6.5, 9.5, 15.5	General population	Non-behavioural therapy = 15 Non-behavior therapy plus post-treatment contact = 16	Weight	Unclear	N	N/A	

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
				Behavior therapy = 21 Behavior therapy plus relapse prevention training = 15 Behavior therapy plus post-treatment contact = 15 Behavior therapy plus relapse prevention training plus post-treatment contact = 17					
Perri 1986	USA	4.6, 7.6, 10.6, 14.6, 22.6	Adults 22 to 60 years of age who were between 20%-100% over ideal body weight based on Metropolitan Life Insurance Company norms (1959)	Behavior therapy = NS Behavior therapy plus maintenance = NS Behavior therapy plus aerobic exercise = NS Behavior therapy behavior therapy plus aerobic exercise plus maintenance = NS	Weight	Unclear	N	N/A	
Perri 1987	USA	4.6, 7, 18	Adults 21-60 years of age and 20%-100% overweight	Behavior therapy only = 22 Behavior therapy plus a peer self-help group maintenance program = 46 Behavior therapy plus a therapist-contact maintenance program = 41	Weight	Unclear	N	N/A	
Perri 1989	USA	5, 10, 16	General population	Standard treatment group = 24 Extended treatment regimen = 24	Weight	Unclear	N	N/A	
Perri 1997	USA	6, 12, 15	Women 40-60 years of age	WL + Home-based exercise = 24 WL + Group-based exercise = 25	Weight	Unclear	N	N/A	
Perri 2001	USA	5, 11, 17	General population.	Control, Standard Behavioural Therapy (BT) = NS BT + Relapse prevention training = NS BT + problem-solving therapy = NS	Weight	Unclear	N	N/A	Information available from previous reviews.
Perri 2014	USA	6, 24	General population	Control, Education group = 169 Low dose, (low intensity lifestyle counselling) = 148 Moderate dose, (Moderate intensity lifestyle counselling) = 134 High dose, (High intensity lifestyle counselling) = 161	Weight	Unclear	N	N/A	Information available from previous reviews.
Pettman 2009	Australia	4, 12	Adults with metabolic syndrome	Control = 50 Intervention B - Passive follow-up = 54 Intervention A - Active follow-up = 49	Weight; TC; SBP; HOMA-IR; One timepoint only: FG	Low	Y	Y	Data provided.
Poelman 2015	Netherlands	3, 6, 12	General population	Control Condition = 139 Intervention condition = 139	Weight	High	Y	Y	Data provided.

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
Promrat 2010	USA	3, 6, 9, 12	Adults who were overweight or obese and diagnosed with Nonalcoholic steatohepatitis	Control = 10 Lifestyle Intervention = 21	Weight; TC; HbA1c; HOMA-IR	Low	Y	Y	Data provided.
Provencher 2009	Canada	4, 10, 16	Premenopausal women	Control group = 48 Social support = 48 Health-At-Every-Size = 48	Weight; TC; One timepoint only: HDL;	Unclear	Y	Y	Data provided.
Ptomey 2018	USA	6, 18	Adults with mild-to-moderate intellectual and developmental disabilities	Conventional Diet = 72 Enhanced Stop Light Diet = 78	Weight	Low	N	N/A	
Ramirez 2001	USA	4, 7, 16	General adult overweight and obese population	Weight control only = 40 Weight control plus body image therapy = 48	Weight	Unclear	N	N/A	
Rejeski 2011	USA	6, 18	Patients with CVD or cardiometabolic dysfunction	Successful aging control arm, = 93 Physical activity = 97 Weight loss and physical activity = 98	Weight	Unclear	N	N/A	Information available from previous reviews.
Ridgeway 1999	USA	6, 12	Patients with Type 2 Diabetes	Control = 28 Intervention Group = 28	Weight; TC; HbA1c; FBG	Unclear	N	N/A	
Rock 2015	USA	6, 12, 18, 24	Patients with early-stage breast cancer	Control = 349 Intervention = 348	Weight; SBP	Low	N	N/A	
Rolls 2005	USA	0.92, 1.8, 2.8, 3.7, 4.6, 5.5, 6.4, 7.4, 8.3, 9.2, 10.1, 11, 12	Overweight and obese women and men	Comparison-control = 50 Two snacks = 50 One soup = 50 Two soups = 50	Weight; TC; SBP	Unclear	Y	Y	Data provided.
Rolls 2017	USA	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	Women aged 20–65 years BMI of 28–45 kg/m2	Standard advice = 62 Pre-portioned foods group = 62 Portion selection group = 62	Weight; TC; SBP; HOMA-IR; FG	Unclear	Y	Y	Data provided; Information available from previous reviews.
Rosas 2015	California	6, 12, 24	Participants are obese Spanish-speaking adults with at least one cardiovascular risk factor recruited from a community health center in a low-income neighborhood of San Mateo County, California.	Usual care = 41 Case-management intervention = 84 Case-management + Community health worker intervention = 82	Weight; TC; HDL; SBP; HbA1c; FG	Unclear	N	N/A	
Ross 2012	Canada	6, 12, 18, 24	General population	Control condition = 241 Behavioral intervention group = 249	Weight; TC; HDL; SBP; FG	Unclear	N	N/A	Information available from previous reviews.
Samaras 1997	Australia	6, 12	Mature-aged people, performing less than 1 hour of exercise per week	Control =13 Intervention = 13	Weight; TC; HDL; HbA1c; FG; Plasma insulin	Unclear	N	N/A	Information available from previous reviews.
Santanasto 2011	USA	6, 12	Community dwelling older men and woman age 60 and over, who were overweight to	Physical Activity plus Successful Ageing = 15 Physical Activity plus Weight Loss = 21	Weight	Unclear	N	N/A	

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author#:	Notes:
			moderately obese and living a sedentary lifestyle (formal exercise less than 3x/week for a total of less than 90 min/week).						
Sattin 2016	USA	3, 12	Obese and overweight, and/or prediabetic (FPG of 100 mg/dl to 125 mg/dl).	Health Education intervention = 287 Fit body and soul intervention = 317	Weight; FBG	Unclear	N	N/A	
Schubel 2016	Germany	3, 5.5, 11.5	Adults between 35-65 years, non-smokers and who are overweight or obese.	Control group = 52 Continuous Calorie Restriction = 49 Intermittent Calorie Restriction = 49	Weight; TC; HbA1c; HOMA-IR	Low	Y	Y	Data provided.
Seligman 2011	Brazil	3, 12	General population (patients with metabolic syndrome - no diabetics, more than half of the participants were hypertensive)	Standard-of-care strategy = 25 Healthy diet and step counter = 25 Healthy diet and fitness = 26	Weight; TC; HDL; SBP; HOMA-IR	Low	Y	Y	Data provided; Information available from previous reviews.
Shikany 2013	USA	6, 12	General population	Food-based diet = 60 Meal replacement = 60	Weight; TC; HDL; SBP; FG	Low	N	N/A	Information available from previous reviews.
Sikand 1988	USA	4, 24	Women with obesity	No exercisers = 15 Exercisers = 15	Weight	Unclear	N	N/A	
Silva 2010	Portugal	4, 12, 36	Women with overweight or obesity, aged 25 to 50 (and pre-menopausal)	Comparison group = 116 Intervention = 123	Weight	Unclear	Y	N	Information available from previous reviews.
Snel 2012	The Netherlands	4, 22	Adults with insulin-dependent Type 2 diabetes mellitus and obesity	VLCD only = 14 VLCD + exercise = 13	Weight; HbA1c; QoL	Unclear	N	N/A	
Solbrig 2019	UK	6, 12	General overweight and obese adult population	Motivational interviewing = 58 Functional imagery training = 63	Weight; QoL	Unclear	N	N/A	
Somers 2012	USA	6, 12, 18	Patients with knee pain and osteoarthritis	Standard Care = 51 Lifestyle behavioral weight management intervention only = 59 Lifestyle behavioral weight management intervention + Pain Coping Skills Training = 62 Pain Coping Skills Training only (N/A) = 60	Weight	Low	Y	Y	Data provided.
Spring 2013	USA	3, 6, 9, 12	Veterans receiving medical care from Veterans' Affairs department	MOVE standard care = 35 MOVE + personal digital assistant = 34	Weight	Unclear	N	N/A	Information available from previous reviews.
Spring 2017	USA	3, 6, 12	General adult population with obesity	Control self-guided program = 32 Standard weight loss program = 32 Technology-supported = 32	Weight	High	N	N/A	

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
Stahre 2005	Sweden	2.3, 6, 12, 18	General female population	Control = 43 Cognitive treatment = 62	Weight	Unclear	N	N/A	Information available from previous reviews.
Stahre 2007	Sweden	2.3, 8.3, 14.3, 20.3	Employed women who were childcare providers	Control Group (weight-reducing program) = 27 Cognitive treatment group = 27	Weight	High	N	N/A	
Stalonas 1978	USA	2.3, 5.3, 14.3	People who are overweigh	Basic weight loss program = 12 WL program plus contingency component = 12 WL program plus exercise and contingency components = 10 WL program plus exercise component = 10	Weight	Unclear	N	N/A	
Stenius-Aarniala 2000	Finland	3.2, 6, 12	People with asthma	Control = 19 Treatment with VLCD = 19	Weight; QoL	Unclear	Y	N	Information available from previous reviews.
Stevens 1993	USA	3, 6, 12, 18, 276	Men and women aged 30 to 54 years with high-normal diastolic blood pressure from 80 through 89 mm hg.	Control = 256 Intervention = 308	Weight; SBP	Unclear	Y	Y	Data provided.
Stevens 2001	USA	6, 12, 18, 24, 30, 36	Adults 30 to 54 years of age who had nonmedicated diastolic blood pressure of 83 to 89 mm Hg and systolic blood pressure less than 140 mm Hg and were 110% to 165% of their ideal body weight at baseline.	Control = 596 Intervention = 595 Sodium only intervention (N/A) = 594 Combined intervention (N/A) = 597	Weight; SBP	Unclear	Y	Y	Data provided. Information available from previous reviews.
Stolley 2017	USA	6, 12	Early-stage (I-III) African American breast cancer survivors	Moving Forward Self-Guided program = 121 Moving Forward Interventionist-Guided program = 125	Weight	Low	Y	N	
Strobl 2013	Germany	6, 12	General population	Control, Usual care = 239 Telephone aftercare =228	Weight	Low	N	N/A	Information available from previous reviews.
Sundfor 2018	Norway	3, 6, 12	Men and women aged 21-70 years with BMI 30-45.0	Continuous energy restriction = 58 Intermittent energy restriction = 54	Weight; TC; SBP; HbA1c; FG	Low	N	N/A	
Tapsell 2017	Australia	3, 12	Adult residents, 25-54 years, BMI 25-40kg/m2	Usual care (Control) = 126 Intervention Group = 125 Intervention plus food supplement group (N/A) = 126	Weight; TC/HDL ratio; TC; SBP; HbA1c; QoL; Remission HTN	High	N	N/A	

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
TarragaMarcos 2017	Spain	0.5, 1, 3, 6, 12	Adult general obese/overweight population.	G3 = 55 G2 = 61 G1 = 60	Weight; TC; HDL	Unclear	Y	N	
Teeriniemi 2018	Finland	12, 24	Residents aged 20–60 years living in the city of Oulu who were overweight or obese.	Control = 89 SHG Counselling = 87 CBT Counselling = 85 Control plus HBCSS = 91 SHG Counselling plus HBCSS = 92 CBT Counselling plus HBCSS = 88	Weight; HDL; SBP; FG	Unclear	Y		
ter Bogt 2009	Netherlands	12, 36	Patients 40–70 years of age with BMI: 25 to 40 and either hypertension or dyslipidemia or both.	GP usual care = 232 Lifestyle counselling from NP = 225	Weight; TC; HDL; SBP; FG	Unclear	N	N/A	
The Look AHEAD Research Group 2010	USA	12, 24, 36, 48, 60, 72, 84, 96, 108, 115, 120	Adults with Type 2 Diabetes Mellitus	Diabetes support and education = 2575 Intensive lifestyle intervention = 2570	Weight; TC; HDL; SBP: QoL; Incidence CV morbidity; Incidence CV mortality; Incidence T2DM; Remission T2DM	High	N	N/A	Information available from previous reviews.
Trepanowski 2017	USA	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	General population with a BMI ≥ 25.	No-intervention control group = 31 Daily calorie restriction group = 35 Alternate-day fasting group = 34	Weight; HOMA-IR	High	Y	Y	Data provided.
Tsai 2010	USA	3, 6, 12	General population	Control = 26 Brief counselling = 24	Weight; TC; HDL; SBP; FG	Unclear	N	N/A	Information available from previous reviews.
Tuomilehto 2009	Finland	3, 12, 24, 60	Patients with mild obstructive sleep apnoea	Control = 41 Intervention = 40	Weight; TC; HDL; SBP; FBG; Plasma insulin; QoL	Low	N	N/A	Information available from previous reviews.
van de Glind 2017	England, The Netherland, Norway, Portugal	3, 12	Males	Comparison group = 553 EuroFIT group = 560	Weight; TC; SBP; HbA1c; QoL; Final timepoint only: Incidence CV morbidity	High	Y	Y	Information/data received.
vanWier 2011	Netherlands	6, 24	General population	Control – Brochure = 460 Internet Group = 464 Phone Group = 462	Weight; TC; SBP	Low	N	N/A	
Viegener 1990	USA	1, 2, 3, 4, 5, 6, 12	General population	Intermittent diet = 42 Standard treatment = 43	Weight	Unclear	N	N/A	

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
Vissers 2010	Belgium	3, 6, 12	General overweight or obesity patients.	Control = 21 Diet only group (Diet) = 20 Diet + fitness training group (Fitness) = 20 Diet + WBV group (Vibration) = 18	Weight; HDL; SBP; FBG; Final follow-up only: Incidence T2DM	Unclear	N	N/A	Information available from previous reviews.
Volpe 2008	USA	3, 6, 9, 12	Adults with overweight/obesity	Exercise only = 34 Diet only = 28 Combination of diet and exercise = 28	Weight; TC/HDL ratio; TC; SBP	High	Y	Y	Data provided.
von Gruenigen 2012	USA	3, 6, 12	Women who are overweight with histologically confirmed Stage I or II endometrial cancer	Control = 34 Intervention = 41	Weight	Unclear	N	N/A	Information available from previous reviews.
vonGruenigen 2008	USA	3, 6, 12	Women with endometrial cancer	Control, Usual care = 22 Lifestyle intervention = 23	Weight; QoL	Unclear	N	N/A	
Wadden 1986	USA	1, 3, 6, 16, 40, 64	General population	VLCD = 18 Behaviour = 18 Combined = 23	Weight	Unclear	N	N/A	Information available from previous reviews.
Wadden 1994	USA	0.32, 1, 2, 3, 4, 6, 12, 18	Women from general population	Balanced deficit diet = 21 Very low-calorie diet = 28	Weight	Unclear	N	N/A	Information available from previous reviews.
Wadden 1998	USA	1.85, 3.9, 5.5, 11.1, 23	Women	Diet alone, Control = NS Diet plus aerobic exercise = NS Diet plus strength training = NS Diet plus aerobic and strength training = NS	Weight	Unclear	N	N/A	Information available from previous reviews.
Wadden 2004	USA	5, 10, 16	Community obese females	Nondieting approach = 39 Balanced-deficit diet = 43 Meal replacement plan = 41	Weight	Unclear	N	N/A	
Waleekhachonloet 2007	Thailand	3, 6, 12	Women from a rural community	Individual behavior therapy = 67 Group behavior therapy = 65	Weight	Unclear	N	N/A	
Weinstock 2013	USA	6, 12, 24, 36	Adults with metabolic syndrome	Conference Call DPP = 128 Individual Call DPP = 129	Weight; TC; SBP; FG	Unclear	Y	N	
West 2007	USA	6, 12, 18	Women with type 2 diabetes treated by oral diabetes medications but not insulin	Attention control = 108 Motivational interviewing = 109	Weight; HbA1c	Unclear	N	N/A	
West 2011	USA	4, 12	Older-adult participants	Control = 112 Lifestyle Intervention = 116	Weight	Unclear	Y	Y	Data provided.
West 2016	USA	6, 18	Healthy individuals with overweight/obesity	Internet behavioral weight control treatment = 199 Internet behavioral weight control treatment + Motivational interviewing = 199	Weight	Unclear	N	N/A	

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
Whelton 1998	USA	6, 9, 12, 15, 18, 21, 24, 27, 30	Adults 60-80 years, with systolic blood pressure lower than 145 mm Hg and diastolic blood pressure lower than 85 mm Hg while receiving treatment with a single antihypertensive medication.	Non-weight loss (Usual lifestyle, control group plus sodium reduction) = NS Weight loss (Weight loss alone plus weight loss and sodium reduction combined intervention) = NS	Weight	High	N	N/A	Information available from previous reviews.
Wilson 2010	USA	5.5, 12, 24	Adults with a BMI between 27 and 45 who met DSM-IV criteria for BED	Guided Self-help Based on CBT = 66 Behavioral Weight Loss Treatment = 64 Interpersonal Psychotherapy = 75	Weight	High	Y	N	
Wilson 2016	USA	3, 6, 12	General population	Control - Self Study Group = 242 Phone Fuel Your Life = 182 Group Fuel Your Life = 236	Weight	Unclear	Y	N	
Wilson 2016b	USA	6, 12	General population	Control = 457 FUEL Your Life peer health coaches + nurse education = 459	Weight	High	Y	Y	Data provided.
Wing 1985	USA	4, 16	Seventy-five percent of the patients were on oral medication for their diabetes, and 63% were on hypertensive medication	Standard-care condition = NS Nutrition education = NS Behavior modification = NS	Weight	Unclear	Y	N	Information available from previous reviews.
Wing 1988	USA	2, 14	Type 2 diabetes	Diet plus placebo exercise = 13 Diet plus moderate exercise = 12	Weight; TC; HDL; SBP; HbA1c	Unclear	N	N/A	
Wing 1988b	USA	2, 14	Type 2 diabetes patients	Diet only = 15 Diet plus exercise = 15	Weight; TC; HDL; SBP; HbA1c; FG; Plasma insulin	Unclear	N	N/A	
Wing 1991	USA	5, 17	Overweight and obese people with type 2 diabetes	Behavior therapy alone = 19 Behavior therapy plus VLCD = 17	Weight; TC/HDL ratio; TC; HDL; HbA1c; FG	Unclear	N	N/A	Information available from previous reviews.
Wing 1996	USA	6, 18	General population of overweight women	Standard Behavioral Treatment (SBT) = 40 SBT plus structured meal plans and grocery lists (menu) = 41 SBT plus structured meal plans plus food provision with participants sharing the cost of the food (Buy food) = 41 SBT plus structured meal plans plus food provision with the food provided free (free food) = 41	Weight	Unclear	N	N/A	
Wing 1998	USA	6, 12, 24	Overweight participants who had one or two parents with diabetes	Control = 40 Diet = 37	Weight; TC/HDL ratio; TC; HDL; SBP; HbA1c; FG; At final	Unclear	N	N/A	Information available from previous reviews.

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:
				Exercise = 37 Diet plus exercise = 40	follow-up only: Incidence T2DM				
Wing 2003	USA	5, 11	Obesity patients	No break group (control) = 48 Long break group = 47 Short break group = 47	Weight	Unclear	Y	N	
Wing 2010	USA	6, 12, 18	Women over 30 years who are overweight or obese with at least 10 urinary incontinence episodes per week.	Structured Education Program = 112 Weight Loss Intervention (Skills Based maintenance) = 113 Weight Loss Intervention (Motivation Based maintenance) = 113	Weight	Low	N	N/A	
Yannakoulia 2008	Greece	2, 12	Type 2 diabetes mellitus patients	Usual care group = 15 Intensive care group = 15	Weight; HbA1c	High	Y	Y	Data provided; Information available from previous reviews.
Yardley 2014	UK	6, 12	GP patients	Usual care = 43 Web-based only = 45 Basic nurse support = 44 Regular nurse support = 47	Weight	High	N	N/A	Information available from previous reviews.
Yates 2009	UK	3, 6, 12, 24	Patients with impaired glucose tolerance	Control group = 34 PREPARE with pedometer = 33 PREPARE group = 31	Weight; TC; HDL; SBP; FG; At final follow-up only: Incidence T2DM	Low	N	N/A	Information available from previous reviews.
Yates 2018	USA	4, 12	Obese, postmenopausal women with prediabetes and normal endometrial biopsy; Participants were recruited from the community, Harris Health System, and employees at MD Anderson Cancer Center	Placebo + no lifestyle = 8 Metformin + no lifestyle (N/A) = 7 Placebo + lifestyle = 7 Metformin + lifestyle (N/A) = 7	Weight	High	Y	N	Information available from previous reviews.
Yeh 2003	USA	6, 12, 24	General population (women)	Counseling based intervention = 40 Skills based intervention = 40	Weight;	High	N	N/A	
Yeh 2016	USA	6, 12	Chinese immigrants with prediabetes living in New York City	Control group = 30 Intervention group = 30	Weight; TC; SBP; HbA1c	Unclear	Y	N	Information available from previous reviews.
Yin 2018	China	6, 12	Women with pre-diabetes	Comparison-Control Group = 75 Intervention Group = 109	Weight; HbA1c; FG	Unclear	N	N/A	
Zhang 2016	China	6, 12, 24	Patients with Nonalcoholic Fatty Liver Disease	Control = 74 Moderate exercise = 73 Vigorous-moderate exercise = 73	Weight; TC; HDL; SBP; FG	Low	N	N/A	Information available from previous reviews.
Zwickert 2016	Australia	3, 6, 9, 15	General population	CBT + Minimal = 29 CBT + Intensive = 31	Weight	High	N	N/A	Information available from previous reviews.

Study ID	Country:	Follow-up time points (months):	Population	Study groups and number of participants randomised	Outcome measures extracted*	Overall Risk of Bias	Author contacted	Additional information obtained from author[#]:	Notes:

BED: Binge Eating Disorder; **BMI:** Body Mass Index (kg/m^2); **CBT:** Cognitive Behaviour Therapy; **CV:** Cardiovascular; **DPP:** Diabetes Prevention Program; **FG:** Fasting glucose (including fasting plasma glucose and other glucose measures)**; HbA1c:** Haemoglobin A1C**; HDL:** High-density lipoprotein cholesterol; **N:** No; **HOMA-IR:** Homeostatic Model Assessment of Insulin Resistance**; HTN:** Hypertension; **MI:** Motivational interviewing; **MR:** Meal replacement; **N/A:** Not applicable; **NS:** Not specified; **QoL:** Quality of Life; **SBP:** Systolic Blood Pressure; **T2DM:** Type 2 Diabetes Mellitus; **TC:** Total cholesterol; **TC/HDL**: Total cholesterol/High-density lipoprotein ratio; **VLCD:** Very low calorie diet; **Y:** Yes.

*Not all outcomes measures collected at all follow-up time points; Outcome measures collected at baseline only not listed.

[#] Additional information or data obtained from study authors.

Table 4. Baseline demographics

Study ID	Groups:	Randomised	Number of participants reported at baseline	Gender (%F)	Age		BMI		Comorbidities at baseline (%) *		
					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
Abed 2013	Control	75	75	33	60.3	10.3	33.8	4.1	100	28	87
	Weight Management	75	75	32	59.8	9.5	32.8	3.5	100	24	83
Ackermann 2011	Standard advice alone (controls)	46	46	61	60.1	10.5	30.8	5.1	NR	NR	NR
	YMCA DPP intervention	46	46	50	56.5	9.7	32.0	4.8	NR	NR	NR
Agras 1990	Computer alone	30	30	100	45.2	12.4	29.7	4.3	NR	NR	NR
	Computer + group support	30	30						NR	NR	NR
	Behaviour therapy	30	30						NR	NR	NR
Ahern 2017	Brief intervention	211	211	68	51.9	14.1	34.4	4.6	NR	13.5	49.8
	12-week behavioural weight-loss programme	530	528	68	53.6	13.3	34.7	5.4			
	52-week behavioural weight-loss programme	528	528	68	53.3	14.0	34.5	5.1			
Almanza - Aguilera 2018	Control (general recommendations)	48	27	100	44.4	3.3	36.3	5.7	NR	0	NR
	Treatment (lifestyle weight loss intervention)	67	30	100	45.7	3.5	35.4	4.1	NR	0	NR
Ames 2005	Standard behavioural treatment	NR	13	100	21.5	2.2	NR	NR	NR	NR	NR
	Reformulated cognitive-behavioural treatment	NR	13						NR	NR	NR
Andersen 1999	Diet + Lifestyle Activity	20	20	100	42.9	7.9	32.4	4.5	NR	NR	NR
	Diet + Aerobic Group	20	20	100	43.2	9.1	31.4	3.7	NR	NR	NR
Anderson 2014	Control (weight loss booklet only)	166	166	26	63.6	6.7	30.4	3.9	NR	14.3	NR
	Intervention (BeWEL)	163	163	26	63.5	7.0	31.0	4.5	NR		NR
Annesi 2016	Comparison treatment	55	110	100	48.2	7.8	35.3	3.2	NR	NR	NR
	Experimental treatment	55							NR	NR	NR
Annesi 2017	Control comparison group	54	107	100	48.6	7.1	35.4	3.3	NR	NR	NR
	Experimental group	53							NR	NR	NR
Appel 2011	Control (Self-directed)	138	138	63.8	52.9	10.1	36.8	5.1	NR	23.8	76.8
	Remote Support Only (N/A)	139	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	In-Person Support	138	138	63.8	53.3	10.5	36.8	5.2	NR	23.9	71.0
Ard 2004	“advice only” comparison group	273	273	63	49.5	8.8	32.9	5.6	NR	NR	14.0
	“established” behavioural intervention group	268	268	64.9	50.2	8.6	33.0	5.5	NR	NR	13.7
	Established + DASH Intervention Group	269	269	57.2	50.2	9.2	33.3	6.3	NR	NR	13.8
Ard 2018	Exercise Only	54	54	68.5	69.9	4.5	33.9	0.4	NR	NR	NR
	Exercise + Diet Quality + Weight Maintenance	55	55	60	70.5	4.8	33.8	0.4	NR	NR	NR
	Exercise + Diet Quality + Weight Loss	55	55	58.2	70.3	4.8	33.3	0.4	NR	NR	NR
Ash 2006	Control Group - Booklet only	63	54	77.8	47	14	35.8	6.2	NR	NR	NR
	Individualised Dietetic Treatment	66	65	75.4	48	13	34.2	5.9	NR	NR	NR
	Fat Booters Incorporated	62	57	66.7	49	13	33.7	4.6	NR	NR	NR
Ashley 2001	Control, Diet	37	37	100	42.3	4.1	29.9	2.6	NR	NR	NR
	MR - Physician/Nurse led	38	38	100	41	5.7	30.1	3.7	NR	NR	NR
	MR - Dietician lead	38	38	100	41	4.3	30.1	2.9	NR	NR	NR
Ashley 2007	Control, TFG - Traditional Food Group	35	35	100	39.8	6.1	29.5	3.1	NR	NR	NR
	MRG - Meal Replacement Group	35	35	100	36.7	6.3	29.1	2.4	NR	NR	NR

Study ID	Groups:	Randomised	Number of participants reported at baseline	Gender (%F)	Age		BMI		Comorbidities at baseline (%) *		
					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
Aveyard 2016	Advice only	942	942	57	56.2	15.6	35.1	5.1	NR	NR	NR
	Advice plus weight loss programme	940	940	57.3	55.8	16.5	34.8	4.6	NR	NR	NR
Azar 2013	Control, Usual care	NR	81	45.7	52.5	10.6	32.4	6.3	NR	NR	NR
	Self-directed	NR	81	45.7	51.8	9.9	31.7	4.7	NR	NR	NR
	Coach-led	NR	79	48.1	54.6	11.0	31.8	5.1	NR	NR	NR
Bacon 2002	Health at Every Size - control	NR	29	100	39.3	4.5	35.9	4.1	NR	NR	NR
	Diet Group - intervention	NR	23				36.6	4.1	NR	NR	NR
Barnes 2017	Treatment as usual (N/A)	30	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Nutrition - ATTENTION CONTROL	29	29	69	48.9	11.6	35.1	7.5	NR	NR	NR
	Motivational interviewing	30	30	80	47.1	10.0	34.7	7.1	NR	NR	NR
Bartels 2015	Control, Fitness club membership	106	106	55	43.5	11.6	37.5	8.8	NR	NR	NR
	IN SHAPE	104	104	47	44.3	10.9	36.2	7.5	NR	NR	NR
Beavers 2017	Weight loss	82	82	72	66.3	4.5	34.7	4.0	23.2	15.9	69.5
	Weight loss + Aerobic training	86	86	72.1	67.5	5.1	33.9	3.5	27.9	22.1	77.9
	Weight loss + Resistance training	81	81	69.1	66.9	4.4	34.8	3.6	27.2	19.8	74.1
Beeken 2017	Usual care	267	267	64.8	60[a]	48.9-67.1[a]	34.8[a]	32.6-39.4[a]	NR	NR	NR
	10TT	270	270	66.7	59.1[a]	48.1-66.1[a]	35[a]	32.6-38.7[a]	NR	NR	NR
Bennett 1986	Group Contact Control	NR	74	100	40.1	NR	32.7	NR	NR	NR	NR
	Individual Contact Control	NR							NR	NR	NR
	Insight Control	NR							NR	NR	NR
	Cognitive Rehearsal	NR							NR	NR	NR
Bennett 2012	Control, Usual care	185	185	65.9	54.7	11.0	36.99	5.2	NR	NR	NR
	Be Fit, Be Well	180	180	71.1	54.6	10.8	37.03	5.0	NR	NR	NR
Bennett 2013	Control, usual care	97	94	100	35.2	5.5	30.2	2.4	NR	5.3	36.2
	Weight gain prevention intervention	97	91	100	35.6	5.5	30.1	2.7	NR	5.8	36.3
Berendsen 2011	Standard combined lifestyle intervention	164	164	64	53.8	12.4	35	4.6	NR	48.9	NR
	Supervised combined lifestyle intervention	247	247	65.2	55.9	12.3	34.2	4.2	NR		NR
Berry 2014	Control	162	162	92.6	36.8	8.1	39.1	8.3	NR	NR	NR
	Family based. Nutrition, exercise and coping skills intervention	184	184	92.9	36.9	8.1	36.4	8.3	NR	NR	NR
Bertram 1990	Control - diet only	15	8	100	37.4	1.6[b]	34.3	1.3[b]	NR	NR	NR
	Diet plus lectures	15	15	100	38.4	1.8[b]	34.8	1.3[b]	NR	NR	NR
	Diet plus exercise	15	13	100	37.2	1.8[b]	34.6	1.6[b]	NR	NR	NR
Bertz 2012	Control	17	17	100	32.2	4.6	30.2	3.4	NR	NR	NR
	Diet Only	17	17	100	33.7	4.2	33.7	2.6	NR	NR	NR
	Exercise only	18	18	100	33.2	3.7	33.2	3.1	NR	NR	NR
	Intervention	16	16	100	33.9	4.5	33.9	2.2	NR	NR	NR
Beutel 2006	Behavioural therapy	130	130	85	42.3	20-60[c]	43.9	35.2, 73.3[c]	NR	NR	NR
	Psychodynamic treatment	137	137	86	40.3	20-64[c]	44.6	35.1, 73.5[c]	NR	NR	NR
Bliddal 2011	Control, low-energy diet	45	45	88.9	64.1	10.5	35.2	4.5	NR	NR	NR

Study ID	Groups:	Randomised	Number of participants reported at baseline	Gender (%F)	Age		BMI		Comorbidities at baseline (%) *		
					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
	Intensive low-energy diet	44	44	88.6	61.1	11.1	36	5.5	NR	NR	NR
Bo 2007	Control standard care	188	166	57.8	55.7	5.6	29.8	4.6	NR	NR	36.1
	Intervention lifestyle by trained professional	187	169	58.6	55.7	5.7	29.7	4.1	NR	NR	36.1
Brown 2014	Control	66	66	70	44.9	10.1		3.4	NR	NR	NR
	RENEW	70	70	64	44.4	11.7		2.6	NR	NR	NR
Burke 2005	Control usual care	118	118	57	55.3	7.5	29.7	2.5	NR	NR	100
	Low sodium + fish diet	123	123	54.5	57.1	7.2	30.4	2.9	NR	NR	100
Burke 2015	Standard behavioural weight loss treatment	72	72	83.1	53	9.6	33.2	4.11	NR	NR	NR
	Self-efficacy enhancement plus standard behavioural weight loss treatment	58	58								
Cesa 2013	Integrated Multimodal Medically Managed Inpatient Program	29	19	100	32.2	6.4	41.8	6.3	NR	NR	NR
	Cognitive Behavior Therapy	30	20	100	29.9	8.0	41.1	3.3	NR	NR	NR
	VR-Enhanced Cognitive Behavior Therapy	31	27	100	32.9	8.8	39.2	5.3	NR	NR	NR
Chaiyasoot 2018	Control, Lifestyle Education Intervention	52	52	78.8	43.2	11.9	33.1[a]	30, 38.3[a]	NR	NR	NR
	Lifestyle Education Intervention plus Meal Replacements	58	58	86.2	41.8	11.8	32[a]	30.4, 37.6[a]	NR	NR	NR
Chee 2017	Usual Care	115	115	48.7	54	8	28.9	6.3	NR	100	NR
	tDNA Conventional Counseling	57	57	87.4	55	8	29.4	7.3	NR	100	NR
	tDNA Motivational Interviewing	58	58	67.2	55	8	30.7	8.2	NR	100	NR
Cheskin 2008	Standard diet	58	58	58.6	55.48	7.2	35.7	3.8	NR	100	NR
	Meal replacement	54	54	53.7	54.6	7.0	35.3	3.5	NR	100	NR
Cheyette 2007	Control	20	20	40	58	10.7	31.7	5.4	NR	100	NR
	Weight No More intervention group	29	29	51.7	56.7	9.7	34.1	4.7	NR	100	NR
Christensen 2012	Reference group	44	44	100	46	8.6	30.4	4.9	NR	NR	NR
	Intervention group	54	54	100	45.7	6.36	30.5	5.4	NR	NR	NR
Cleo 2018	Wait list control (N/A)	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TTT Top Ten Tips habit formation	25	25	80	48.2	11.3	34.6	5.2	NR	NR	NR
	DSD Do Something Different online software	25	25	76	51.3	10.0	35.2	7.4	NR	NR	NR
Cole 2013	Control - individualised counselling	31	31	51	55	9.9	31.4	4.8	NR	NR	19
	Intervention- shared medical appointment	34	34	41	61.2	8.4	30.3	5	NR	NR	25
Conroy 2015	Self-guided	50	49	100	54	5.6	33.4	5.4	NR	23.5	56.1
	Interventionist led	49	49	100	53.8	5.3	36.1	5.4	NR		
Cooper 2010	Guided Self-Help Control	51	51	100	41.86	8.67	35.41	2.71	NR	0	NR
	Behaviour Therapy	50	50	100	41.38	9.90	34.79	3.06	NR	0	NR
	Cognitive Behaviour Therapy	49	49	100	41.2	8.77	33.85	2.71	NR	0	NR
Cousins 1992	Control	56	27	100	33.8	7.0	31.6	4.9	NR	NR	NR
	Individual	56	32	100	33.6	6.4	31.7	5.0	NR	NR	NR
	Family	56	27	100	32.8	6.1	30.3	4.5	NR	NR	NR
Craighead 1989	Control, minimal contact	20	11	NR	NR	NR	NR	NR	NR	NR	NR
	Contracted Exercise	20	14	NR	NR	NR	NR	NR	NR	NR	NR
	Supervised Exercise	22	17	NR	NR	NR	NR	NR	NR	NR	NR

Study ID	Groups:	Randomised	Number of participants reported at baseline	Gender (%F)	Age		BMI		Comorbidities at baseline (%) *		
					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
Crowley 2017	Group Medical Visit	136	136	8.1	60.4	8.3	35	4.8	75.7	100	87.5
	Intensive Weight Management Group Medical Visit	127	127	13.4	61	8.1	35.6	5.4	83.5	100	91.3
Dale 2009	Control	23	23	74	45	30, 68[c]	36.5	4.3	NR	NR	NR
	Modest	31	31	61	48	32, 62[c]	33.9	4.4	NR	NR	NR
	Intensive intervention	25	25	68	46	31, 68[c]	32.5	5.2	NR	NR	NR
Dalziel 2006	Control	303	303	7.9	53.5	10	25.8	3.4	100	NR	NR
	Experimental	302	302	10.6	53.5	10	25.8	3.4	100	NR	NR
Damschroder 2014	Control, MOVE - usual care	159	159	12.6	54.6	10.5	36.8	6.4	NR	37.7	65.4
	ASPIRE group, individual telephone counselling	162	162	16	55.4	10.0	36.3	6.2	NR	32.7	67.9
	ASPIRE group, group counselling	160	160	16.2	54.9	9.5	36.2	6.1	NR	40.0	65.6
Daubenmier 2016	Active control intervention	94	94	86	47.8	12.4	35.6	3.8	NR	NR	22.3
	Mindfulness Intervention	100	100	79	47.2	13.0	35.4	3.5	NR	NR	16
Daumit 2013	Control, Usual care	147	147	49	44.1	11.0	36.5	7.3	NR	NR	NR
	ACHIEVE	144	144	51.4	46.6	11.5	36	7.2	NR	NR	NR
de Zwaan 2017	Internet-based guided self-help treatment	89	83	89.2	43.7	12.7	33.4	3.9	NR	8.4[#]	19.3
	Cognitive Behavioural Therapy	89	86	86	42.7	12.0	34.4	3.9	NR	3.5[#]	26.7
Delahanty 2015	Dietitian Referral group	29	29	41	61	11.4	33.8	5.0	27.6	100	82.6
	Group lifestyle intervention	28	28	39	62	9.6	36.3	12.4	25.0	100	71.4
deRoon 2017	Control	48	48	100	60	4.9	29.5	2.6	NR	NR	NR
	Diet	97	97	100	61	4.6	29.5	2.6	NR	NR	NR
	Exercise	98	98	100	59	4.9	29	2.9	NR	NR	NR
deVos 2016	Control	204	204	100	55.7	3.2	32.5	4.5	NR	NR	74.5
	Tailor-made lifestyle intervention	203	203	100	55.7	3.2	32.2	4.1	NR	NR	68.5
DeZwaan 2005	BED	35	35	100	37.7	6.5	35.7	4.2	NR	NR	NR
	BED plus CBT	36	36	100	40.9	7.7	36.6	3.2	NR	NR	NR
Diabetes Prevention Program R G 2009	Placebo	1082	1082	69	50.3	10.4	32.2	6.7	NR	All at high risk of T2DM	30.0
	Metformin (N/A)	1073	1073	N/A	N/A	N/A	N/A	N/A	N/A		
	Lifestyle	1079	1079	68	50.6	11.3	33.9	6.8	NR		
Djuric 2002	Control	13	48	100	51.7	8.4	34.9	1.2[b]	NR	6.3	NR
	Weight Watchers	11		100			35	1.2[b]	NR		NR
	Individualized group	13		100			35.5	1.1[b]	NR		NR
	Comprehensive group	11		100			36.8	1[b]	NR		NR
Donnelly 2013	Phone Group	201	201	66	43.2	10.2	34.6	4.7	5.0	9.0	27.9
	Face-to-Face Group	194	194	68.0	44.5	9.9	34.9	4.6	5.2	7.2	25.3
Duncan 2016	Control	162	159	42.8	54.8	8.48	31.8	6.91	NR	NR	NR
	Intervention	158	154	45.1	53.1	9.83	33.8	7.14	NR	NR	NR
Eakin 2014	Usual care	151	151	43.0	58.3	9.0	33.2	6.0	74.8	100	NR
	Telephone intervention	151	151	44.4	57.7	8.1	33.1	6.3	84.1	100	NR
Eaton 2016	Control, Standard Intervention	106	106	83	48.6	11.2	37.8	6.7	NR	NR	NR
	Enhanced Intervention	105	105	75.2	48.5	11.9	37.7	6.5	NR	NR	NR

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					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
Fahey 2018	Self-paced condition	124	124	50.8	33.8	6.8	NR	NR	NR	NR	NR
	Counselor- initiated condition	124	124	50.8	35.3	8.2	NR	NR	NR	NR	NR
Fernandez-Ruiz 2018	Control	37	37	51.4	62.8	8.9	34.3	4.5	NR	62.2	86.5
	Intervention (healthy eating, exercise & CBT)	37	37	48.6	59.4	9.1	32.4	3.8	NR	43.2	78.4
Finkelstein 2017	Control	54	54	55.6	45	10.2	29.5	3.5	NR	NR	NR
	Financial Reward	107	107	55.7	43.4	9.8	29.8	3.1	NR	NR	NR
Fisher 2011	Diet only	29	NR	100	NR	NR	28	3	NR	NR	NR
	Diet + aerobic training	43	NR		NR	NR			NR	NR	NR
	Diet + resistance training	54	NR		NR	NR			NR	NR	NR
Foley 2016	Usual care (Control)	175	175	68	50.5	8.7	35.9	3.7	NR	3.4	29.1
	Weight loss intervention	176	176	68	50.9	9.1	35.9	4.1	NR	3.4	29.5
Foreyt 1993	Control (N/A)	38	38	48	NR	NR	NR	NR	N/A	N/A	N/A
	Exercise only	43	43						NR	NR	NR
	Diet only	42	42						NR	NR	NR
	Exercise plus diet	42	42						NR	NR	NR
Forman 2013	Standard Behavioural Treatment	54	54	NR	45.0	12.8	33.6	3.7	NR	NR	NR
	Acceptance-Based Behavioural Treatment	74	74	NR	46.2	12.9	34.4	3.6	NR	NR	NR
Forman 2016	Standard Behavioural Treatment	90	90	82.1	51.6	10.2	37.4	6.2	NR	NR	NR
	Acceptance-Based Treatment	100	100		51.6	10.0	36.5	5.4	NR	NR	NR
Foster-Schubert 2012	Control- usual care	87	87	100	57.4	4.4	30.7	3.9	NR	NR	NR
	Calorie reduced diet	118	118	100	58.1	5.9	31	3.9	NR	NR	NR
	Aerobic exercise (N/A)	117	117	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Intervention - diet and exercise	117	117	100	58.0	4.5	31	4.3	NR	NR	NR
Freitas 2017	Weight loss program + Sham	27	25	100	48.5	9.6	37.2	2.1	NR	NR	48.0
	Weight loss program + Exercise	28	26	96	45.9	7.7	38.1	2.8	NR	NR	38.5
Fuller 2012	Western diet group	35	35	54.3	47.1	11.1	31.0	3.8	NR	NR	NR
	Korean diet group	35	35	71.4	43.7	11	31.2	4.0	NR	NR	NR
Gold 2007	Commercial programme eDiets	62	62	86	48.9	9.9	32.5	4.2	NR	NR	NR
	Structured VTrim	62	62	77	46.5	10.7	32.3	3.9	NR	NR	NR
Goodwin 2014	Mailed-based intervention	167	167	100	60.4	7.8	31.1	5.3	NR	0.0	NR
	Individual lifestyle intervention	171	171	100	61.6	6.7	31.4	5.0	NR	0.0	NR
Gorin 2013	Standard Behavioural Weight loss	99	99	78.8	50.4	9.3	36.1	6.1	NR	NR	NR
	Enhanced home environment behavioural weight loss	102	102	77.5	47.5	11.3	36.7	6.2	NR	NR	NR
Gorin 2015	Usual care	96	96	71.9	48.3	9.7	38.2	7.3	NR	16.7	30.2
	STRIDE	104	104	72.1	46.2	11.4	38.3	9.1	NR	13.5	28.8
Grilo 2011	Cognitive Behavioral Therapy (CBT)	45	45	64.4	45.2	8.5	39.3	6.1	NR	NR	NR
	Behavioral weight loss (BWL)	45	45	62.2	44.6	10.5	38	5.3	NR	NR	NR
	CBT + BWL (N/A)	35	NR						N/A	N/A	N/A
Grilo 2014	Placebo	27	27	66.7	43.2	12.4	39.3	5.5	NR	NR	NR
	Placebo/CBTsh	25	25	80	45.7	12.4	36.5	5.3	NR	NR	NR
	Sibutramine (N/A)	26	NR	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
	Sibutramine/CBTsh (N/A)	26	NR	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hageman 2017	Web-based only	101	101	100	53.9	6.9	NR	NR	3.0	3.0	NR
	Web-based discussion	100	100				NR	NR	1.0	5.0	NR
	Web-based email	100	100				NR	NR	4.0	6.0	NR
Hakala 1993	Individual community-based counselling	28	28	7.4	38.1	NR	42.8	4.5	NR	NR	NR
	Group in-patient rehabilitation	30	30	8.1	40.3	NR	43.3	4.8	NR	NR	NR
Hanson 1976	No treatment control condition (N/A)	10	66	87.9	40	NR	NR	NR	NR	NR	NR
	Attention-placebo control condition	11									
	Conventional self-management condition	7									
	Programmed text with low therapist-group contact	12									
	Programmed text with high therapist-group contact	13									
Hardcastle 2013	Control	131	131		50.41	10.87	33.37	4.47	NR	NR	18.3
	MI counselling intervention	203	203		50.1	10.54	33.66	5.12	NR	NR	22.7
Harrigan 2016	Usual Care Group	33	33	100	58	7.5	34	7.5	NR	NR	NR
	Telephone Weight Loss Counseling	34	34	100	60	7.7	31.8	5.4	NR	NR	NR
	In-Person Weight Loss Counseling	33	33	100	58.9	7.3	33.5	6.7	NR	NR	NR
Harris 2017	Waist Winners Too	24	24	58.3	43.6	14.0	41.2	8.1	NR	12.5	45.8
	TAKE 5	26	26	69.2	40.6	15.0	40.2	6.8	NR	3.8	46.2
Hunt 2014	Control, Wait-list	373	373	0	47.2	7.89	35.1	4.8	NR	NR	NR
	FFIT	374	374	0	47	8.07	35.5	5.1	NR	NR	NR
Huseinovic 2016	Control Group	56	56	100	32.6	4.7	31[a]	26.3–48.7[c]	NR	NR	NR
	Diet behaviour modification Group	54	54	100	31.8	4.5			NR	NR	NR
Irwin 2003	Control Group	86	86	100	60.6	59.1, 62.1[d]	30.6	29.8, 31.4[d]	NR	NR	NR
	Exercise group	87	87		61	59.6, 62.5[d]	30.5	29.6, 31.4[d]	NR	NR	NR
Jackson 1982	Control	6	6	100	23.5	16-34[c]	NR	NR	NR	NR	NR
	Treatment	6	6	100	21.8	16-34[c]	NR	NR	NR	NR	NR
Jackson 2018	Brief strategic therapy	30	30	100	45.9	10.8	39.6	2.6	NR	NR	NR
	Cognitive-behavioral therapy	30	30	100	46.2	10.5			NR	NR	NR
Jakicic 2011	Self Help Group	89	89	92	44.7	7.9	27.1	1.7	NR	NR	NR
	Moderate Physical Activity	82	82	90	43.5	8.8	27.1	1.7	NR	NR	NR
	High Physical Activity	98	98	92	45	8.4	27	1.6	NR	NR	NR
Jakicic 2015	Standard behavior weight loss interventions group	71	69	79.7	43.0	9.3	32.7	3.7	NR	NR	NR
	ADOPT group	71	64	76.6	43.3	8.6	33.3	2.9	NR	NR	NR
	MAINTAIN Group (N/A)	71	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Jebb 2011	Standard care	395	395	86	48.2	12.2	31.3	2.6	NR	6.8	25.1
	Commercial programme	377	377	88	46.5	13.5	31.5	2.6	NR	6.4	25.5
Jebb 2017	Usual care	140	140	60.0	47.4	12.8	36.8	5.1	NR	14.3	21.4
	Low energy total diet replacement programme	138	138	60.5	48.2	11.5	37.6	5.7	NR	15.2	23.9

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					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
Jeffery 1995	Control group	40	40	50	35.7	NR	31.1	NR	NR	NR	NR
	Standard Behavioural Therapy (SBT)	40	40		37.5	NR	30.9	NR	NR	NR	NR
	SBT + Incentives (I)	41	41		38.1	NR	31.1	NR	NR	NR	NR
	SBT + Food Provision (FP)	40	40		38.5	NR	30.8	NR	NR	NR	NR
	SBT + FP + I	41	41		37.6	NR	31.1	NR	NR	NR	NR
Jeffery 2003	Standard behaviour therapy	93	202	58	42.2	6.4	31.7	2.6	NR	NR	NR
	High physical activity	109							NR	NR	NR
Jenkins 2017	Control	486	486	79.4	44.9	43.8, 46.0 d	32.5	32.0, 33.0 d	5.8	NR	8.6
	Dietary advice only	145	145	75.9	46.2	44.0, 48.4 d	31.7	30.8, 32.7 d	7.6	NR	9.0
	Food basket only	148	148	72.3	44.9	43.1, 46.7 d	32.6	31.6, 33.5 d	7.4	NR	10.1
	Food and advice	140	140	76.4	42.4	40.4, 44.4 d	32.7	31.7, 33.7 d	5.0	NR	5.7
John 2011	Control	22	22	18.2	NR	NR	34.7	3.2	9.1	4.4[#]	68.2
	Deposit contracts group	44	44	15.9	NR	NR	34.6	2.4	18.2	15.9[#]	59.1
Jolly 2011	Minimal intervention comparator	100	100	75	49.67	13.83	33.9	4.4	NR	NR	NR
	Choice (N/A)	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Pharmacy	70	70	73	48.9	15.8	33.4	3.5	NR	NR	NR
	General practice	70	70	67	50.5	13.8	33.1	3.5	NR	NR	NR
	Weight Watchers	100	100	72	50.7	14.6	34.0	3.9	NR	NR	NR
	NHS Size Down	100	100	64	48.8	15.6	33.8	3.9	NR	NR	NR
	Rosemary Conley	100	100	69	49.8	49.8	33.4	3.5	NR	NR	NR
	Slimming world	100	100	65	48.8	14.9	33.8	3.8	NR	NR	NR
Jones 1986	Individual	21	160	100	50.3	13.5	35.1	9.2	NR	0.0	NR
	Group	17							NR		NR
	Leaflet Individual	22							NR		NR
	Leaflet Group	20							NR		NR
	Diary Individual	20							NR		NR
	Diary Group	19							NR		NR
	Leaflet Diary Individual	21							NR		NR
	Leaflet Diary Group	20							NR		NR
Jones 1999	Control Group	NS	51	49.0	59	7	34	6	NR	NR	100
	Weight Loss Group	NS	51	54.9	57	6	34	6	NR	NR	100
Katula 2013	Enhanced Usual Care Comparison Condition	150	150	57.3	58.5	9.0	32.6	4.1	NR	0.0	52.0
	Lifestyle Weight-Loss Intervention	151	151	57.6	57.3	10.1	32.8	3.9	NR	0.0	51.7
Katzer 2008	Mail-delivered 'non-dieting' program (P3)	101	225	100	46.1	8.9	35.4	5.7	NR	NR	NR
	Group 'non-dieting' program (P2)	62							NR	NR	NR
	Group 'non-dieting' program plus Relaxation (P1)	62							NR	NR	NR
Keogh 2014	Intermittent dieting	39	19	100	59.5	8.7	33.1	3.8	NR	1	NR
	Continuous dieting	36	17	100	60.8	12.5	33.0	7.5	NR		NR

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					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
Keranen 2009	Short-term counselling	47	47	70	49	9	35	5	NR	NR	NR
	Intensive counselling	35	35	74	50	8	35	5	NR	NR	NR
King 1989	Control (N/A)	52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Exercise only	52	36	0	44.8	7.4	NR	NR	NR	NR	NR
	Diet only	51	36	0	45	7.6	NR	NR	NR	NR	NR
Kingsley 1977	Social Pressure	11	78	100	41.5	NR	NR	NR	NR	NR	NR
	Group Behavioural	13					NR	NR	NR	NR	NR
	Individual Behavioural	12					NR	NR	NR	NR	NR
	Social Pressure – Booster	11					NR	NR	NR	NR	NR
	Group Behavioural – Booster	13					NR	NR	NR	NR	NR
	Individual Behaviour – Booster	12					NR	NR	NR	NR	NR
Knauper 2018	Standard DPP	101	85	76.5	49.4	11.8	NR	NR	NR	NR	NR
	Enhanced DPP	107	87	83.9	50.9	12.1	NR	NR	NR	NR	NR
Kuller 2012	Control - health education	255	255	100	57	NR	30.9	3.8	NR	NR	NR
	Intervention - lifestyle change	253	253	100	56	NR	30.6	3.8	NR	NR	NR
Kumanyika 2012	Basic programme	137	137	82.5	46.8	11.6	37.3	6.4	10.9	19.7[#]	41.6
	Basic plus programme	124	124	86.3	47.6	11.9	37.2	6.5	6.5	16.9[#]	46.0
Leahey 2014	SURI alone	46	46	82.6	46.5	1.7[b]	35.1	1.3[b]	NR	NR	NR
	SURI plus Internet behavioral weight loss program	90	90	82.2	46.2	1.2[b]	34.7	0.7[b]	NR	NR	NR
	SURI plus Internet behavioral weight loss program plus optional group sessions	94	94	86.2	47.7	1.1[b]	33.4	0.7[b]	NR	NR	NR
Leahey 2015	SURI1 Internet behavioral weight loss	91	91	83.5	45.1	11.0	32.9	5.5	NR	NR	NR
	SURI1 Internet behavioral weight loss1incentives	89	89	79.8	46.3	9.4	33.5	6.5	NR	NR	NR
	SURI1 Internet behavioral weight loss 1 group option	88	88	84.1	47.4	11.4	34.3	6.8	NR	NR	NR
Lejeune 2003	Diet	20	37	0	39	7.1	32.3	2.3	NR	NR	NR
	Diet plus exercise	20							NR	NR	NR
Ley 2004	Control diet	70	70	20	52	0.8[b]	29.1	0.6[b]	NR	NR	NR
	Reduced-fat	66	66	31.8	52.5	0.8[b]	29.3	0.6[b]	NR	NR	NR
Li 2016	Usual care group	60	60	35	59	3.9	25.2	0.9	NR	100	NR
	Diet group	79	79	46.8	59.7	6.5	27.2	2.8	NR	100	NR
	50g-oats group	80	80	48.8	59.7	6.1	26.9	2.7	NR	100	NR
	100g-oats group	79	79	58.2	59.4	6.8	27.4	2.4	NR	100	NR
Li 2005	Individualized diet plan	52	36	33.3	56.6	10.4[b]	33.7	3.6[b]	NR	100	NR
	Soy-based meal replacement	52	46	41.3	54.4	9.3[b]	32.8	3.7[b]	NR	100	NR
Lindstrom 2003	Control	257	257	68.5	55	7	31.4	4.5	NR	NR	31.1
	Intervention	265	265	65.7	55	7	31.1	4.5	NR	NR	29.1
Liss 2016	Standard care arm	167	167	48.5	56.6	12.2	34.9	7.3	NR	100	76.6
	Standard care plus group-based lifestyle intervention	164	164	51.8	57.1	10.6	36.2	7.8	NR	100	80.5
Little 2016	Control, Nurse follow-up	279	279	66	52.7	13.3	37.1	6.0	NR	NR	NR

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					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
	Web-based support with minimal support (Remote)	270	270	60	54.7	13.0	36.3	5.7	NR	NR	NR
	Web-based + nurse support (face to face)	269	269	65	53.7	13.2	36.7	5.4	NR	NR	NR
Long 1983	Individual Dietetic Counselling Group	12	36	100	36.8	18-56[c]	33.5	28.9-49.4[c]	NR	NR	NR
	Group Dietetic Counselling Group	12							NR	NR	NR
	Group Dietetic Counselling and behaviour therapy Group	12							NR	NR	NR
Lowe 2018	Behavior therapy	90	90	83	47.7	12.57	NR	NR	NR	NR	NR
	Behavior therapy plus meal replacements	91	91	85	50.38	9.39	NR	NR	NR	NR	NR
	Home food environment	81	81	73	51.5	9.42	NR	NR	NR	NR	NR
Ma 2015	Control, Enhanced usual care	165	165	70.9	47.7	12.1	37.6	5.7	NR	NR	NR
	Diet and counselling	165	165	70.3	47.5	12.6	37.4	6.0	NR	NR	NR
Manning 1994	Clinic visit	37	37	56.8	57.3	54.1, 60.5	31.2	30.1, 32.3	NR	NR	NR
	Behavioural	38	38	47.4	58.8	55.9, 61.7	32.2	30.5, 33.9	NR	NR	NR
	Home visits	35	35	42.7	55.2	51.6, 58.8	32	30.9, 33.1	NR	NR	NR
	Dexfenfluramine (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Routine usual care (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manzoni 2016	Control, Standard behavioral inpatient program	52	158	100	35.6	8.04	42.2	6.01	NR	NR	NR
	Cognitive–behavioral therapy	54							NR	NR	NR
	CBT + Virtual reality	57							NR	NR	NR
Marniemi 1990	Control group	42	42	76.2	38.0	NR	33.6	NR	NR	NR	NR
	Lactovegetarian weight reduction group	31	31	74.2			34.4	NR	NR	NR	NR
	Mixed diet weight reduction	37	37	73.0			NR	NR	NR	NR	NR
Martin 2008	Control, Standard Care	69	69	100	42.6	11.4	39.8	7.8	NR	NR	NR
	Tailored physician/lifestyle counselling	68	68	100	40.8	12.7	38.3	7.5	NR	NR	NR
Mefferd 2007	Control	29	29	100	56.4	7.5	31.3	4.8	NR	NR	NR
	Intervention	56	56	100	55.9	8.7	31	3.7	NR	NR	NR
Melchart 2017	Control group	57	55	72.7	52.1	10	31.5	2	NR	0.0	NR
	Intervention group	109	111	74.8	49.9	9.7	31.8	2	NR	0.0	NR
Melin 2003	Control, less intensively treated	21	21	90.7	39.4	26-57[c]	35.2	4.6	NR	14.3	NR
	Intensively treated	22	22		40.7	25-60[c]	35.6	4.5	NR	NR	NR
Menard 2005	Control - usual care	36	36	38.9	55.9	8.6	32.6	5.7	NR	100	NR
	Intervention - intensive multitherapy	36	36	25	53.7	7.5	32.9	5.5	NR	100	NR
Mengham 1999	Control	NR	36	44.4	63.5	10.9	31.7	4.9	NR	89.2	NR
	Intervention	NR	38	44.7	57.8	13.5	31.4	4.4	NR		NR
Mensinger 2016	Control, Weight Neutral Program	40	40	100	39.8	4.34	37.4	0.6	NR	NR	NR
	Weight Loss Program	40	40	100	39.4	3.91	38.6	0.7	NR	NR	NR
Messier 2013	Exercise only	150	150	72	66	6	33.5	3.7	8.0	12.0[#]	59.3
	Diet-induced weight loss only	152	152	71	66	6	33.7	3.8	12.5	11.8[#]	61.2
	Diet-induced weight loss plus exercise	152	152	72	65	6	33.6	3.7	7.2	15.1[#]	59.9
Miller 2002	Control Group (Monitoring)	23	23	68	54	8	34.2	6.2	NR	NR	23
	Lifestyle Intervention	22	22	57	53	11	32.8	5.4	NR	NR	22

Study ID	Groups:	Randomised	Number of participants reported at baseline	Gender (%F)	Age		BMI		Comorbidities at baseline (%) *		
					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
Mitsui 2008	Control	22	21	54.5	67.4	10.6	25.6	2.5	NR	NR	18.6
	Intervention	24	22	54.2	64	8.9	24.8	2.2	NR	NR	
Molenaar 2010	Nutritional counselling group (diet D, group)	67	67	42	43	9	31.3	2	NR	NR	NR
	Nutritional plus exercise counselling group (diet + exercise (D + E) group)	67	67	42	43	10	30.8	1.9	NR	NR	NR
Moreno 2014	Low-calorie diet	39	26	96.1	46.3	9.3	35.1	5.3	NR	3.8	19.2
	Very low-calorie-ketogenic diet	40	27	81.4	44.4	8.6	35.1	4.5	NR	7.4	14.8
Morgan 2010	Control (Information and self-help)	31	31	0	34	11.6	30.5	3.0	NR	NR	NR
	SHED-IT (Internet) group	34	34	0	37.5	10.4	30.6	2.7	NR	NR	NR
Muggia 2014	Standard care group	83	83	71.1	43.5	10.0	32.5	3.7	NR	NR	NR
	Brief CBT group	80	80	76.3	46.2	11.7	31.9	3.	NR	NR	NR
Munsch 2003	GP control	17	122	58.8	45.2	23.9	32.6	1.8	NR	NR	NR
	Clinic BASEL	52		76.9			38.5	7.5	NR	NR	NR
	GP BASEL	53		79.2			36.2	6.5	NR	NR	NR
Munsch 2007	Group BWLT	36	36	86.1	47.8	11.8	34.4	3.7	NR	NR	NR
	Group CBT	44	44	90.9	44.4	11.5	33.7	4.3	NR	NR	NR
Murphy 1982	Waiting list (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Supportive	11	11	63.6	42.0	NR	NR	NR	NR	NR	NR
	Alone-1 Party	13	13	69.2	35.3	NR	NR	NR	NR	NR	NR
	Alone-2 Party	13	13	53.8	39.7	NR	NR	NR	NR	NR	NR
	Couple-1 Party	13	13	61.5	42.3	NR	NR	NR	NR	NR	NR
	Couple-2 Party	12	12	75.0	47.5	NR	NR	NR	NR	NR	NR
Nakata 2014	Control (N/A)	63	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Education-only	62	62	66	51.7	6.8	29.2	3.8	NR	0.0	29.0
	Group-based support	63	63	81	50.7	6.7	29	3.0	NR	0.0	17.5
Nanchahal 2012	Usual care control	190	190	72.6	49.4	14.1	33.0	5.4	NR	12.3	NR
	CAMWEL Intervention	191	191	71.7	48.2	15.5	33.9	5.6	NR		NR
Ng 2015	Control group	43	43	30.7	52	9.3	30.5	4.2	NR	25.6[#]	20.9
	Lifestyle modification program	61	61	21.3	51.4	9.1	30.2	3.9	NR	23.0[#]	26.2
Nicklas 2004	Healthy lifestyle control	78	78	68	69	0.1[b]	34.2	0.6[b]	35.9	11.5[#]	59.0
	Exercise only	80	80	74	69	0.7[b]	34.2	0.6[b]	42.5	13.8[#]	67.5
	Diet only	82	82	72	68	0.8[b]	34.5	0.6[b]	28.0	7.3[#]	62.2
	Diet plus exercise	76	76	74	76	0.8[b]	34	0.7[b]	34.2	15.8[#]	57.9
Nicklas 2009	Calorie restriction (CR) Only	34	34	100	58.4	6.0	33.9	4.0	17.6	NR	32.4
	CR + Moderate-Intensity	40	40	100	57.7	5.5	33.7	3.5	17.5	NR	25.0
	CR + Vigorous-Intensity	38	38	100	59	5.0	32.9	3.7	18.4	NR	21.1
Nilsen 2011	Control, Individual Physician Group	104	104	47	45.9	11	35.9	6	NR	NR	NR
	Individual Plus Interdisciplinary Group	109	109	53	47	11	37.6	6	NR	NR	NR
Nordby 2012	Control	15	12	0	31	7	28	1.5	NR	0.0	0.0
	Training and increased diet (N/A)	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Training	17	12	0	28	5	28.3	1.1	NR	0.0	0.0
	Energy-reduced diet	15	12	0	32	7	28	1.3	NR	0.0	0.0

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Nurkkala 2015	Control	30	17	77	46	10	35.8[a]	32.6, 39.4[a]	NR	NR	NR
	Intervention group	90	59	71	46	10	34.3[a]	32.4, 38.9[a]	NR	NR	NR
Oldroyd 2006	Control group	39	32	31.25	57.5	41 – 73[c]	29.9	4.9	NR	NR	NR
	Intervention group	39	37	54.05	58.2	41 – 75[c]	30.4	5.6	NR	NR	NR
Pan 1997	Control	138	138	43	46.6	9.3	26.2	3.8	NR	0.0	NR
	Intervention group (Exercise: n=155; Diet: n = 148; Diet plus exercise: n = 135)	438	438	47	44.7	9.3	25.6	4.0	NR	0.0	NR
Parikh 2010	Control	49	49	84	50	18	31	5.0	NR	0.0	NR
	Intervention	50	50	86	46	15	32	4.0	NR	0.0	NR
Patel 2016	Control group	50	50	82.0	44.9	10.6	37.3	6.1	NR	NR	NR
	Standard premium discount	51	49	81.6	45.1	9.9	37.2	5.4	NR	NR	NR
	Immediate premium discount	50	48	87.5	45.7	9.5	37.1	5.3	NR	NR	NR
	Daily lottery incentive	50	49	76.0	43.9	9.2	36.1	4.3	NR	NR	NR
Pavlou 1989a	Balanced caloric-deficit diet plus supervised exercise	5	5	0	49.2	2.9[b]	NR	NR	NR	NR	NR
	Balanced caloric-deficit diet - No exercise	6	6		44.8	3.2[b]	NR	NR	NR	NR	NR
	Protein-sparing modified fast plus supervised exercise	5	5		46.1	2.3[b]	NR	NR	NR	NR	NR
	Protein-sparing modified fast - no exercise	5	5		48.1	1.9[b]	NR	NR	NR	NR	NR
Pavlou 1989b	Balanced caloric-deficit diet - No exercise	11	11	0	42.9	2.0[b]	NR	NR	NR	NR	NR
	Balanced caloric-deficit diet plus supervised exercise	10	10		41.5	2.4[b]	NR	NR	NR	NR	NR
	Protein-sparing modified fast - no exercise	16	16		49.6	2.1[b]	NR	NR	NR	NR	NR
	Protein-sparing modified fast plus supervised exercise	16	16		45.1	2.5[b]	NR	NR	NR	NR	NR
	DPC-70 - no exercise	13	13		41.8	2.1[b]	NR	NR	NR	NR	NR
	DPC-70 - plus supervised exercise	10	10		41.8	3.3[b]	NR	NR	NR	NR	NR
	DPC 800 - no exercise	16	16		44.5	2.4[b]	NR	NR	NR	NR	NR
	DPC 800 plus supervised exercise	18	18		46.1	2.2[b]	NR	NR	NR	NR	NR
Pearce 1981	Alternative treatment	14	68	100	39	NR	NR	NR	NR	0.0	NR
	Wives alone	13				NR	NR	NR	NR	0.0	NR
Pedersen 2013	Aerobic interval training	35	26	15	62.3	5.7	31.6[a]	29.6, 34.8[a]	26	0	96.4
	Low energy diet	35	29	28	63.8	6.8	31.1[a]	29.9, 32.7[a]	29	0	
Pekkarinen 2015	Control, Follow up without intervention	99	99	72	47.3	10.5	42.1	5.7	NR	NR	NR
	One-year maintenance program	100	100	71	47.4	10.1	41.4	6.4	NR	NR	NR
Perri 1984	Non-behavioural therapy	15	129	89.2	38.8	NR	NR	NR	NR	NR	NR
	Non-behavior therapy plus post-treatment contact	16				NR	NR	NR	NR	NR	NR
	Behavior therapy	21				NR	NR	NR	NR	NR	NR

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					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
	Behavior therapy plus relapse prevention training	15				NR	NR	NR	NR	NR	NR
	Behavior therapy plus post-treatment contact	15				NR	NR	NR	NR	NR	NR
	Behavior therapy plus relapse prevention training plus post-treatment contact	17				NR	NR	NR	NR	NR	NR
Perri 1986	Behavior therapy	NR	90	84.4	43.3	NR	NR	NR	NR	NR	NR
	Behavior therapy plus maintenance	NR				NR	NR	NR	NR	NR	NR
	Behavior therapy plus aerobic exercise	NR				NR	NR	NR	NR	NR	NR
	Behavior therapy behavior therapy plus aerobic exercise plus maintenance	NR				NR	NR	NR	NR	NR	NR
Perri 1987	Behavior therapy only	22	22	81.8	NR	NR	NR	NR	NR	NR	NR
	Behavior therapy plus a peer self-help group maintenance program	46	46	78.3	NR	NR	NR	NR	NR	NR	NR
	Behavior therapy plus a therapist-contact maintenance program	41	41	80.5	NR	NR	NR	NR	NR	NR	NR
Perri 1989	Standard treatment group	24	NR	83.3	NR	NR	NR	NR	NR	NR	NR
	Extended treatment regimen	24	NR	75	NR	NR	NR	NR	NR	NR	NR
Perri 1997	WL + Home-based exercise	24	23	100	48.9	5.0	33.1	2.9	NR	NR	NR
	WL + Group-based exercise	25	25	100	48.7	6.2	34.0	4.5	NR	NR	NR
Perri 2001	Control, Standard Behavioural Therapy (BT)	NR	18	100	45.2	10.1	36.4	4.7	NR	NR	NR
	BT + Relapse prevention training	NR	28	100	49.2	7.2	35	4.0	NR	NR	NR
	BT + problem-solving therapy	NR	34	100	45.4	9.3	36.1	4.9	NR	NR	NR
Perri 2014	Control, Education group	169	169	81.7	52	10.8	36.3	3.9	NR	NR	NR
	Low dose, (low intensity lifestyle counselling)	148	148	75.7	51.5	12.3	36.1	4.2	NR	NR	NR
	Moderate dose, (Moderate intensity lifestyle counselling)	134	134	81.3	52.8	10.6	36.2	3.8	NR	NR	NR
	High dose, (High intensity lifestyle counselling)	161	161	74.5	53.2	12.0	36.7	4.0	NR	NR	NR
Pettman 2009	Control	50	50	72	NR	NR	36.5	6.5	NR	NR	NR
	Intervention B - Passive follow-up	54	NR	NR	NR	NR	37.3	6.2	NR	NR	NR
	Intervention A - Active follow-up	49	NR	NR	NR	NR	36.1	6.6	NR	NR	NR
Poelman 2015	Control Condition	139	139	84.2	45.4	9.2	32.9	5.0	NR	NR	NR
	Intervention condition	139	139	84.9	45.9	9.2	32	4.6	NR	NR	NR
Promrat 2010	Control	10	10	20	47.6	12.0	33.7	4.7	NR	40.0	NR
	Lifestyle Intervention	21	21	33.3	48.9	10.9	33.9	5.3	NR	52.4	NR
Provencher 2009	Control group	48	47	100	41.8	6.0	30.5	3.0	NR	0.0	NR
	Social support	48	46	100	42.3	5.5	30.6	3.1	NR	0.0	NR
	Health-At-Every-Size	48	48	100	42.8	5.5	30.1	3.0	NR	0.0	NR
Ptomey 2018	Conventional Diet	72	72	54.2	37	12.5	36.4	8.1	NR	NR	NR
	Enhanced Stop Light Diet	78	77	59.7	36.1	12.0	37.5	7.6	NR	NR	NR
Ramirez 2001	Weight control only	40	65	NR	44	9.7	33.8	5.1	NR	NR	NR
	Weight control plus body image therapy	48		NR					NR	NR	NR
Rejeski 2011	Successful aging control arm	93	93	66.7	67.2	4.8	32.6	3.5	100	19.4	64.5
	Physical activity	97	97	66.0	67.2	5.1	32.8	3.9	100	15.5	67.0

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					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
	Weight loss and physical activity	98	98	68.4	66.8	4.6	33.1	4.1	100	16.3	74.5
Ridgeway 1999	Control	28	20	75	65	NR	NR	NR	NR	100	NR
	Intervention Group	28	18	61	62	NR	NR	NR	NR	100	NR
Rock 2015	Control	349	348	100	56.5	9.5	31.4	4.6	NR	NR	28.7
	Intervention	348	345	100	56.1	9.4	31.6	4.7	NR	NR	30.7
Rolls 2005	Comparison-control	50	50	NR	45.2	1.2[b]	31.3	0.4[b]	NR	NR	NR
	Two snacks	50	50	NR	44.5	1.2[b]	31.4	0.4[b]	NR	NR	NR
	One soup	50	50	NR	45.1	1.2[b]	30.9	0.5[b]	NR	NR	NR
	Two soups	50	50	NR	43.8	1.2[b]	30.8	0.5[b]	NR	NR	NR
Rolls 2017	Standard advice	62	62	100	49.5	12.0	34.1	4.3	NR	NR	NR
	Pre-portioned foods group	62	62	100	50.1	10.1	34.2	4.1	NR	NR	NR
	Portion selection group	62	62	100	50.4	9.6	33.6	4.2	NR	NR	NR
Rosas 2015	Usual care	41	41	78	47.6	10.5	34.9	4.4	NR	43.9[#]	NR
	Case-management intervention	84	84	76.2	47.9	11.9	36	5.7	NR	44.0[#]	NR
	Case-management + Community health worker intervention	82	82	76.8	46	10.7	35.5	5.1	NR	41.5[#]	NR
Ross 2012	Control condition	241	241	70.1	52.4	11.8	32	4.2	NR	NR	33.2
	Behavioral intervention group	249	249	70.28	51.3	11	32.6	4.1	NR	NR	25.7
Samaras 1997	Control	13	13	53.8	60.5	2.1[b]	35.7	1.6[b]	NR	NR	NR
	Intervention	13	13	69.2	60.5	7.8[b]	32.3	1.1[b]	NR	NR	NR
Santanasto 2011	Physical Activity plus Successful Ageing	15	15	86.7	69.9	5.9	32	3.1	NR	NR	NR
	Physical Activity plus Weight Loss	21	21	81	70.6	5.9	33.6	3.3	NR	NR	NR
Sattin 2016	Health Education intervention	287	287	82.6	46.4	10.9	35.6	7.6	NR	0	NR
	Fit body and soul intervention	317	317	84.2	46.6	10.9	35.8	7	NR	0	NR
Schubel 2016	Control group	52	52	52	50.7	7.1	31.1	3.6	NR	0	NR
	Continuous Calorie Restriction	49	49	49	50.5	8.0	31.2	4.0	NR	0	NR
	Intermittent Calorie Restriction	49	49	49	49.4	9.0	32	3.8	NR	0	NR
Seligman 2011	Standard-of-care strategy	25	25	32	42	8[b]	34.7	0.6[b]	NR	NR	52.0
	Healthy diet and step counter	25	25	36	44	7[b]	34.4	0.6[b]	NR	NR	64.0
	Healthy diet and fitness	26	25	36	43	8[b]	35.2	0.5[b]	NR	NR	64.0
Shikany 2013	Food-based diet	60	60	90	39.7	9.1	41.3	3.8	NR	NR	NR
	Meal replacement	60	60	86.7	40.2	9.2	40.6	3.8	NR	NR	NR
Sikand 1988	No exercisers	15	15	100	37.8	8.4	NR	NR	NR	NR	NR
	Exercisers	15	15	100	39.8	9.1	NR	NR	NR	NR	NR
Silva 2010	Comparison group	116	116	100	37.1	6.99	31.3	4.00	NR	NR	NR
	Intervention	123	123	100	38.1	7.04	31.7	4.24	NR	NR	NR
Snel 2012	VLCD only	14	14	38.5	56	2	37.9	1.4	NR	100	NR
	VLCD + exercise	13	13	57.1	53	3	36.4	1.1	NR	100	NR
Solbrig 2019	Motivational interviewing	58	55	72.72	42	19–70[c]	32.54	24.5–53.3[c]	NR	NR	NR
	Functional imagery training	63	59	72.88	45	20–72[c]	33.21	26.0–48.0c	NR	NR	NR

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Somers 2012	Standard Care	51	51	78	57.9	10.1	34.1	4.6	NR	NR	NR
	Lifestyle behavioral weight management intervention only	59	59	80	58.3	11.0	33.5	4.4	NR	NR	NR
	Lifestyle behavioral weight management intervention + Pain Coping Skills Training	62	62	92	57.5	9.43	34.1	4.3	NR	NR	NR
	Pain Coping Skills Training only (N/A)	60	60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Spring 2013	MOVE standard care	35	35	14.2	57.7	10.2	35.8	3.8	NR	NR	NR
	MOVE + personal digital assistant	34	34	14.7	57.7	13.5	36.9	5.4	NR	NR	NR
Spring 2017	Control self-guided program	32	32	84.4	40.1	11.1	34.3	3.2	NR	NR	NR
	Standard weight loss program	32	32	81.3	37.3	13.3	34.8	3.0	NR	NR	NR
	Technology-supported	32	32	87.5	40.4	10.7	34.8	2.8	NR	NR	NR
Stahre 2005	Control	43	43	100	45.2	11.3	39.2	NR	NR	NR	NR
	Cognitive treatment	62	62	100	45.4	9.8	40.4	NR	NR	NR	NR
Stahre 2007	Control Group (weight-reducing program)	27	16	100	47	8.2	NR	NR	NR	NR	NR
	Cognitive treatment group	27	26	100	50.1	7.8	NR	NR	NR	NR	NR
Stalonas 1978	Basic weight loss program	12	44	84.1	31.5	16-62[c]	NR	NR	NR	NR	NR
	WL program plus contingency component	12					NR	NR	NR	NR	NR
	WL program plus exercise and contingency components	10					NR	NR	NR	NR	NR
	WL program plus exercise component	10					NR	NR	NR	NR	NR
Stenius-Aarniala 2000	Control	19	19	68.7	48.3	23-60[c]	36.7	32.8-41.8[c]	NR	NR	NR
	Treatment with VLCD	19	19	68.4	49.7	34-60[c]	35.8	31.3-39.4[c]	NR	NR	NR
Stevens 1993	Control	256	256	37	42.4	6.2	29.5	2.8	NR	NR	0.0
	Intervention	308	308	17	43.1	6.0	29.5	2.9	NR	NR	0.0
Stevens 2001	Control	596	596	31.7	43.2	6.1	30.9	3.2	NR	NR	NR
	Intervention	595	595	37	43.4	6.1	31	3.3	NR	NR	NR
	Sodium only intervention (N/A)	594	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Combined intervention (N/A)	597	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Stolley 2017	Moving Forward Self-Guided program	121	121	100	58.1	10.1	NR	NR	NR	NR	51.1
	Moving Forward Interventionist-Guided program	125	125	100	56.8	10.0	NR	NR	NR	NR	
Strobl 2013	Control, Usual care	239	239	44	48.03	9.8	36.3	3.4	NR	NR	NR
	Telephone aftercare	228	228	46	48.54	9.8	35.4	3.6	NR	NR	NR
Sundfor 2018	Continuous energy restriction	58	58	51.7	47.5	11.6	35.3	3.5	NR	6.9[#]	92.0
	Intermittent energy restriction	54	54	48.1	49.9	10.1	35.1	3.9	NR	1.9[#]	37.0
Tapsell 2017	Usual care (Control)	126	126	73	43.8	7.46	32.49	4.12	NR	NR	11.1
	Intervention Group	125	124	73	43.79	7.97	32.59	4.25	NR	NR	16.1
	Intervention plus food supplement group (N/A)	126	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TarragaMarcos 2017	G3	55	55	32.4	49.8	6.6	30.7	3.4	NR	NR	NR
	G2	61	61	34.3	49.7	6.4	30.8	3.6	NR	NR	NR
	G1	60	60	33.3	50.1	7.2	30.3	3.2	NR	NR	NR
Teeriniemi 2018	Control	89	89	51.7	46.5	10.2	30.5	2.3	NR	2.2[#]	25.8
	SHG Counselling	87	87	48.3	44.4	10.2	30.7	2.2	NR	2.3[#]	26.4

Study ID	Groups:	Randomised	Number of participants reported at baseline	Gender (%F)	Age		BMI		Comorbidities at baseline (%) *		
					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
	CBT Counselling	85	85	49.4	46.4	9.7	30.5	1.9	NR	3.5[#]	20.0
	Control plus HBCSS	91	91	47.3	47	9.4	30.3	2.0	NR	3.3[#]	22.0
	SHG Counselling plus HBCSS	92	92	48.9	46.4	10.5	30.4	2.1	NR	1.1[#]	25.0
	CBT Counselling plus HBCSS	88	88	50	44.8	9.6	30.3	2.1	NR	2.3[#]	15.9
ter Bogt 2009	GP usual care	232	232	53.9	56.9	7.8	29.6	3.6	NR	NR	62.5
	Lifestyle counselling from NP	225	225	49.8	55.3	7.7	29.5	3.1	NR	NR	60.9
The Look AHEAD Research Group 2010	Diabetes support and education	2575	2575	59.6	58.9	6.9	36	5.8	NR	100.0	84.0
	Intensive lifestyle intervention	2570	2570	59.3	58.6	6.8	35.9	6.0	NR	100.0	84.5
Trepanowski 2017	No-intervention control group	31	31	87	44	11	34	4	0	0	NR
	Daily calorie restriction group	35	35	83	43	12	35	4	0	0	NR
	Alternate-day fasting group	34	34	88	44	10	34	4	0	0	NR
Tsai 2010	Control	26	26	88	47.6	12.7	37.6	5.6	NR	NR	NR
	Brief counselling	24	24		51.3	11.3	35.4	5.9	NR	NR	NR
Tuomilehto 2009	Control	41	41	27	50.9	8.6	31.4	2.7	NR	7.3	36.6
	Intervention	40	40	25.7	51.8	9.0	33.4	2.8	NR	10	45.0
van de Glind 2017	Comparison group	553	553	0.0	45.6	8.7	33.4	4.7	NR	NR	NR
	EuroFIT group	560	560	0.0	45.9	9.0	33.1	4.6	NR	NR	NR
vanWier 2011	Control – Brochure	460	460	33.5	43	8.7	29.6	3.7	2.0	2.0[#]	10.0
	Internet Group	464	464	34.9	43	8.4	29.6	3.4			
	Phone Group	462	462	30.5	43	8.8	29.5	3.5			
Viegener 1990	Intermittent diet	42	32	100	47.1	8.9	NR	NR	NR	NR	NR
	Standard treatment		31	100	47.1	7.5	NR	NR	NR	NR	NR
Vissers 2010	Control	21	21	74.7	44.8	11.4	30.8	3.4	NR	NR	NR
	Diet only group (Diet)	20	20		45.5	13.1	32.9	3.1	NR	NR	NR
	Diet + fitness training group (Fitness)	20	20		44.7	13	33.1	3.4	NR	NR	NR
	Diet + WBV group (Vibration)	18	18		43.3	9.6	31.9	4.7	NR	NR	NR
Volpe 2008	Exercise only	34	34	50	43.5	7.5	30.5	3.1	NR	NR	NR
	Diet only	28	28	53.6	44.0	6.2	30.9	2.8	NR	NR	NR
	Combination of diet and exercise	28	28	50	45.7	7.4	30.5	2.6	NR	NR	NR
von Gruenigen 2012	Control	34	34	100	58.9	10.9	36.5	9.6	NR	26.5	35.3
	Intervention	41	41	100	57.0	8.6	36.4	5.5	NR	14.1	31.8
von Gruenigen 2008	Control, Usual care	22	22	100	55.4	7.5	41.1	10.3	NR	NR	NR
	Lifestyle intervention	23	23	100	54.0	9.6	43.5	10.1	NR	NR	NR
Wadden 1986	VLCD	18	15	84.7	44.3	8.7	NR	NR	NR	NR	NR
	Behaviour	18	16		44.3	8.6	NR	NR	NR	NR	NR
	Combined	23	19		43.6	7.8	NR	NR	NR	NR	NR
Wadden 1994	Balanced deficit diet	21	21	100	42.9	10.1	38.8	5.4	NR	NR	NR
	Very low-calorie diet	28	28	100	36.8	8.9	40.0	5.7	NR	NR	NR
Wadden 1998	Diet alone, Control	NR	29	100	41	8.8	NR	NR	NR	0.0	NR
	Diet plus aerobic exercise	NR	31	100	40.8	7.9	NR	NR	NR	0.0	NR

Study ID	Groups:	Randomised	Number of participants reported at baseline	Gender (%F)	Age		BMI		Comorbidities at baseline (%) *		
					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
	Diet plus strength training	NR	31	100	40	9.1	NR	NR	NR	0.0	NR
	Diet plus aerobic and strength training	NR	29	100	42.8	8.3	NR	NR	NR	0.0	NR
Wadden 2004	Nondieting approach	39	39	100	43.9	10.2	35.5	4.3	NR	NR	NR
	Balanced-deficit diet	43	43	100	45.6	9.2	36.3	4.9	NR	NR	NR
	Meal replacement plan	41	41	100	43	10.5	36	4.2	NR	NR	NR
Waleekhachonloet 2007	Individual behavior therapy	67	67	100	38.6	7.7	28.9	3.2	NR	NR	NR
	Group behavior therapy	65	65	100	38.3	8.2	28.8	2.5	NR	NR	NR
Weinstock 2013	Conference Call DPP	128	128	71.9	52.7	12.8	39.7	8.3	NR	0.0	66.1
	Individual Call DPP	129	129	78.3	50.7	13.1	38.9	7.6	NR		
West 2007	Attention control	108	108	NR	52	10	36.5	5.4	NR	100.0	NR
	Motivational interviewing	109	109	NR	54	10	36.5	5.5	NR	100.0	NR
West 2011	Control	112	112	77	71.9	6.6	35.0	4.2	NR	NR	NR
	Lifestyle Intervention	116	116	91	70.6	6.6	37.1	5.7	NR	NR	NR
West 2016	Internet behavioral weight control treatment	199	199	90.0	48.9	10.7	36.1	6.1	NR	NR	NR
	Internet behavioral weight control treatment + Motivational interviewing	199	199	89.5	47.9	9.5	35.9	6.0	NR	NR	NR
Whelton 1998	Non-weight loss (Usual lifestyle, control group plus sodium reduction)	NR	NR	57	NR	NR	31.1	2.4	NR	NR	100.0
	Weight loss (Weight loss alone plus weight loss and sodium reduction combined intervention)	NR	NR	47	NR	NR	31.2	2.2	NR	NR	100.0
Wilson 2010	Guided Self-help Based on CBT	66	66	82	50.3	13.6	36.2	4.3	NR	NR	NR
	Behavioral Weight Loss Treatment	64	64	89	46.2	10.9	36.8	5.5	NR	NR	NR
	Interpersonal Psychotherapy	75	75	85	48.7	11.2	36.3	5.1	NR	NR	NR
Wilson 2016	Control - Self Study Group	242	147	59.9	46.6	NR	34.5	NR	NR	NR	NR
	Phone Fuel Your Life	182	106	67.9	47.8	NR	33.6	NR	NR	NR	NR
	Group Fuel Your Life	236	165	58.2	45.9	NR	32.7	NR	NR	NR	NR
Wilson 2016b	Control	457	457	6.3	47	NR	29.9	5.6	NR	NR	NR
	FUEL Your Life peer health coaches + nurse education	459	459	5.4	44	NR	31.9	5.4	NR	NR	NR
Wing 1985	Standard-care condition	NR	53	62.3	55.1	10[b]	34.8	7[b]	NR	100.0	NR
	Nutrition education	NR							NR		NR
	Behavior modification	NR							NR		NR
Wing 1988	Diet plus placebo exercise	13	13	84	52.5	8.9	37.5	6.2	NR	100.0	NR
	Diet plus moderate exercise	12	12		56.2	7.5	38.1	6.4	NR	100.0	NR
Wing 1988b	Diet only	15	15	70.0	55.1	7.2	37.9	6.5	NR	100.0	NR
	Diet plus exercise	15	15		56.1	6.4	38.2	6.6	NR		NR
Wing 1991	Behavior therapy alone	19	16	75.0	51.9	9.9	38.1	5.7	NR	100.0	NR
	Behavior therapy plus VLCD	17	17	76.4	50.6	7.7	37.3	4.7	NR	100.0	NR
Wing 1996	Standard Behavioral Treatment (SBT)	40	40	100	40.5	8.2	32.1	2.5	NR	NR	NR
	SBT plus structured meal plans and grocery lists (menu)	41	41		41.7	7.7	32.8	2.2	NR	NR	NR

Study ID	Groups:	Randomised	Number of participants reported at baseline	Gender (%F)	Age		BMI		Comorbidities at baseline (%) *		
					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*
	SBT plus structured meal plans plus food provision with participants sharing the cost of the food (Buy food)	41	41		40.8	6.7	32	2.5	NR	NR	NR
	SBT plus structured meal plans plus food provision with the food provided free (free food)	41	41		41.9	7.1	32.1	2.1	NR	NR	NR
Wing 1998	Control	40	40	80	45.3	4.9	36.0	5.4	NR	0.0	NR
	Diet	37	37	78	45.0	4.7	36.1	4.1	NR	0.0	NR
	Exercise	37	37	81	46.4	4.5	36	3.7	NR	0.0	NR
	Diet plus exercise	40	40	77	46.3	3.8	35.7	4.1	NR	0.0	NR
Wing 2003	No break group (control)	48	142	84.5	42.6	9.3	33.1	3.3	NR	NR	NR
	Long break group	47							NR	NR	NR
	Short break group	47							NR	NR	NR
Wing 2010	Structured Education Program	112	112	100	53	10	36	5	NR	0.9	NR
	Weight Loss Intervention (Skills Based maintenance)	113	113	100	52	10	37	6	NR	NR	NR
	Weight Loss Intervention (Motivation Based maintenance)	113	113	100	53	11	36	5	NR	NR	NR
Yannakoulia 2008	Usual care group	15	15	53.3	56.9	10	31.6	5	NR	100	NR
	Intensive care group	15	15	40.0	56.3	8.8	32.2	4.1	NR	100	NR
Yardley 2014	Usual care	43	43	65.1	49.9	13.8	36.2	4.9	NR	NR	NR
	Web-based only	45	45	68.9	51.2	13.9	34.8	4.4	NR	NR	NR
	Basic nurse support	44	44	65.9	51.4	13.0	36.4	6.5	NR	NR	NR
	Regular nurse support	47	47	63.8	52.1	12.7	35.4	6.0	NR	NR	NR
Yates 2009	Control group	34	29	41	65	10	29.8	4.4	NR	NR	NR
	PREPARE group	31	29	31	64	7	29.5	4.9	NR	NR	NR
	PREPARE with pedometer	33	29	31	66	8	28.7	4.8	NR	NR	NR
Yates 2018	Placebo + no lifestyle	8	8	100	60	4.5	36.7	5.5	3.4	NR	50.0
	Metformin + no lifestyle (N/A)	7	7		N/A	N/A	N/A	N/A		N/A	N/A
	Placebo + lifestyle	7	7		57.1	3.3	39.7	5.1		NR	28.6
	Metformin + lifestyle (N/A)	7	7		N/A	N/A	N/A	N/A		N/A	N/A
Yeh 2003	Counseling based intervention	40	37	100	51	11	36.3	5.4	NR	0.0	NR
	Skills based intervention	40	35	100	48	9	37.9	6.7	NR	0.0	NR
Yeh 2016	Control group	30	30	50	60.9	12.2	25.8	2.3	NR	NR	NR
	Intervention group	30	30	63.3	56.8	9.5	26.3	2.4	NR	NR	NR
Yin 2018	Comparison-Control Group	75	75	100	53.27	7.17	27.43	2.75	NR	NR	24.0
	Intervention Group	109	109	100	51.06	7.15	27.42	2.91	NR	NR	27.5
Zhang 2016	Control	74	74	62.2	54	6.8	28	2.7	NR	NR	NR
	Moderate exercise	73	73	69.9	54.4	7.4	28.1	3.3	NR	NR	NR
	Vigorous-moderate exercise	73	73	71.2	53.2	7.1	27.9	2.7	NR	NR	NR
Zwickert 2016	CBT + Minimal	29	29	71.6	44.3	19-64[c]	37.5	30.4—54.8[c]	NR	NR	NR
	CBT + Intensive	31	31						NR	NR	NR

Study ID	Groups:	Randomised	Number of participants reported at baseline	Gender (%F)	Age		BMI		Comorbidities at baseline (%) *		
					Mean	*SD*	*Mean*	*SD*	*CV morbidity*	*Type II DM*	*Hypertension*

CBT: Cognitive Behaviour Therapy; **CV** = Cardiovascular; **DM:** Diabetes Mellitus; **DPP:** Diabetes Prevention Program**; N/A** = Not applicable; **NR** = Not reported; **VLCD:** Very low calorie diet
* Comorbidity definitions varied for each study; [#]Unclear whether DM percentage listed includes Type II and Type I
[a] Median (IQR); [b] Standard error; [c] Range; [d] 95% Confidence intervals

Table 5. Intervention characteristics

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Abed 2013	Control	Control	No	Nutrition Edu.; Help following programme end		No			Health Care			0			No
	Weight Management	Diet and exercise	Yes	MR-P; Nutrition Edu.; Help following programme end	Physician	No	Individual	Face to Face; Print	Health Care	15	2	5	Every 3 months	20 - 40 mins; Additional goal-directed face-to-face clinic visits were scheduled as required; 8 weeks VLCD. 3m to 15m low GI meals. Exercise plan of increasing intensity. Exercise 3 per week for 15 months; 24-hour e-mail and telephone support provided as required.	Yes
Ackermann 2011	Standard advice alone (controls)	Diet and exercise	No	Nutrition Edu.			Individual	Face to Face	Community	0	0	1	Once	5	Yes
	YMCA DPP intervention	Diet and exercise	No	Nutrition Edu.			Individual and Group	Face to Face	Community	5	5	16	Weekly	60 – 90	Yes
Agras 1990	Computer alone	Diet and exercise	No	Fin. Incentives		No	Other - remote, plus one group session	Other	Home	3	3		Daily	N/A as computer which they had on them at all times	Yes
	Computer + group support	Diet and exercise	Yes	Fin. Incentives		Unclear	Other - computer	Face to Face; Other	Community; Home	3	3	4	Every second week	2, 4, 6 and 8 weeks	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
							and group support								
	Behaviour therapy	Diet and exercise	No	Fin. Incentives		No	Group	Face to Face	Community	3	3	10	Approx. weekly	10 sessions over 12 weeks	No
Ahern 2017	Brief intervention	Control	No	Nutrition Edu.	Other	Unclear	Individual	Face to Face; Print	Community	1	1	1	Once		No
	12-week behavioural weight-loss programme	Diet and exercise	No	Nutrition Edu.	Health Trainer	Yes	Group	Face to Face; Internet	Community	12	12	12	Weekly	30	No
	52-week behavioural weight-loss programme	Diet and exercise	No	Nutrition Edu.	Health Trainer	Yes	Group	Face to Face; Internet	Community	52	52	52	Weekly	30	No
Almanza - Aguilera 2018	Control (general recommendations)	Control	No	Nutrition Edu.	Nutritionist	No	Unclear	Face to Face; Other		12		2	3m, 12m		No
	Treatment (lifestyle weight loss intervention)	Diet and exercise	No	Nutrition Edu.	Nutritionist	No	Unclear	Face to Face; Other		12	3	13	Weekly (0-3m); Once at 12m		No
Ames 2005	Standard behavioural treatment	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor	No	Group	Face to Face		12	6	20	Approx. weekly (20 sessions in 6m)		No
	Reformulated cognitive-behavioural treatment	Diet and exercise	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face		12	6	20	Approx. weekly (20 sessions in 6m)		No
Andersen 1999	Diet + Lifestyle Activity	Diet and exercise	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face; Other	Community	17	4	16	Weekly	Cognitive behavioural sessions = 60 mins. Advised 30 mins moderate physical activity on most days per week.	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Diet + Aerobic Group	Diet and exercise	No	Nutrition Edu.; Help following programme end	Other	No	Group	Face to Face	Community	17	4	64	Weekly cognitive behavioural session + aerobic session 3 x per week	Cognitive behavioural sessions = 60 mins. Aerobics classes: 5-10 min warm up, 15-45 mins aerobic phase (increased by 4 mins per week), 5 min cool-down.	Yes
Anderson 2014	Control (weight loss booklet only)	Control	No	Nutrition Edu.; Help following programme end		No	Individual	Print	Home	12	12	0			No
	Intervention (BeWEL)	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	No	Individual	Face to Face; Telephone; Print	Health Care; Home	3	12	12	Monthly	The 3 counsellor sessions were each 1 hour. The 9 phone calls were each 15 minutes.	Yes
Annesi 2016	Comparison treatment	Diet and exercise	No	Nutrition Edu.		Yes	Individual	Telephone; Print	Community	24	6	12	Every 2 weeks	15	Yes
	Experimental treatment	Diet and exercise	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	Yes	Individual and Group	Face to Face; Internet	Community	24	6.5	32	Exercise support sessions: over 6.5 months; Nutrition sessions: every 2 weeks	Six 45-minute individual exercise meetings; 10 nutrition sessions of 60 minutes	Yes
Annesi 2017	Control comparison group	Diet and exercise	No	Nutrition Edu.; Inter. Fasting		Yes	Individual	Telephone; Print	Community	6	6	17	Every second week (24 weeks in total)	Lesson followed by 15 min phone conversation	Yes
	Experimental group	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Health Trainer	Yes	Individual and Group	Face to Face	Community	12	6	35	Monthly 1:1 for 6m. Biweekly from weeks 10-52	45 mins for 1:1 sessions; Group length not stated	Yes
Appel 2011	Control (Self-directed)	Control	No	Nutrition Edu.	Health Trainer	Unclear	Individual	Face to Face; Print	Health Care			1	0, 24m		

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Remote Support Only (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	In-Person Support	Diet and exercise	Yes	Nutrition Edu.	Other AHPs; Health Trainer	Yes	Individual and Group	Face to Face; Telephone; Internet; Other	Health Care	24	6	57	Weekly (0-3m); Three monthly contacts over the next 3 months; Two monthly contacts for the remainder of the study.	Individual sessions approx. 20 mins; In-person group sessions: 90 mins	Yes
Ard 2004	"advice only" comparison group	Diet and exercise	No	Nutrition Edu.	Dietitian	No	Individual	Face to Face; Print;	Health Care	6	6	2		30	Yes
	"established" behavioural intervention group	Diet and exercise	Yes	Nutrition Edu.; Help following programme end			Individual and Group	Face to Face	Health Care	18	6	23	Weekly (3m), Biweekly (3m), Monthly (12m)		Yes
	Established + DASH Intervention Group	Diet and exercise	Yes	Nutrition Edu.; Help following programme end			Individual and Group	Face to Face	Health Care	18	6	23	Weekly (3m), Biweekly (3m), Monthly (12m)		Yes
Ard 2018	Exercise Only	Exercise only	No			Unclear	Group	Face to Face; Print	Community	12	6	38	Weekly 0-24 weeks and then biweekly until 12m	1 hour	No
	Exercise + Diet Quality + Weight Maintenance	Diet and exercise	No	Nutrition Edu.		Unclear	Group	Face to Face; Print;	Community	12	6	38	Weekly 0-24 weeks and then biweekly until 12m	1 hour	No
	Exercise + Diet Quality + Weight Loss	Diet and exercise	No	Nutrition Edu.		Unclear	Group	Face to Face; Print	Community	12	6	38	Weekly 0-24 weeks and then biweekly until 12 m	1 hour	No
Ash 2006	Control Group - Booklet only	Control	No	Nutrition Edu.		Yes	Other – booklet only	Print	Community			0			No
	Individualised Dietetic Treatment	Diet and exercise	Yes	Nutrition Edu.	Dietitian	Yes	Individual	Face to Face;	Health Care; Community	6	2	12	Weekly for 8 weeks, monthly from week 8 until 6m.	1 hour initial individual consultation,	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
								Telephone; Print						followed by seven 20-min weekly review sessions and four monthly follow-up sessions	
	Fat Booters Incorporated	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Dietitian; Nutritionist	Yes	Group	Face to Face; Telephone; Print	Health Care; Community	6	2	11	Weekly for 6 weeks with monthly follow up until 6m.	1.5 hrs for 6 sessions. Not stated for 5 follow up visits.	No
Ashley 2001	Control, Diet	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Dietitian	Unclear	Group	Face to Face; Print	Community	24	12	37	Year 1: weekly for 3m, biweekly for 3m, monthly for 6m. Year 2: monthly	60	No
	MR - Physician/Nurse led	Diet and exercise	Yes	MR-P; Nutrition Edu.; Help following programme end	Nurse (General); Physician	Unclear	Group	Face to Face; Print	Community	24	12	37	Year 1: every other week. Year 2: monthly	15	Yes
	MR - Dietician lead	Diet and exercise	Yes	MR-P; Nutrition Edu.; Help following programme end	Dietitian	Unclear	Group	Face to Face; Print	Community	24	12	37	Year 1: weekly for 3m, biweekly for 3m, monthly for 6m. Year 2: monthly	60	Yes
Ashley 2007	Control, TFG - Traditional Food Group	Diet only	Yes	Nutrition Edu.	Dietitian	Yes	Group	Face to Face; Print	Community	12	6	18	0- 6m: 2 x per month 6-12m: monthly		Yes
	MRG - Meal Replacement Group	Diet only	Yes	MR-P; Nutrition Edu.	Dietitian	Yes	Group	Face to Face; Print	Community	12	6	18	0- 6m: 2 x per month 6-12m: monthly		Yes
Aveyard 2016	Advice only	Control	No		GP	Yes	Individual	Face to Face	Health Care	0	0	1		30 seconds	No
	Advice plus weight loss programme	Diet and exercise	No	Nutrition Edu.	GP; Health Trainer	Yes	Individual	Face to Face	Health Care; Community	3	3	12	Weekly	60	No
Azar 2013	Control, Usual care	Control	No				Unclear	Face to Face	Community			4			No
	Self-directed	Diet and exercise	Yes	Nutrition Edu.	Dietitian		Individual and Group	Face to Face; Internet; Other	Home	15	3	40			Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Coach-led	Diet and exercise	Yes	Nutrition Edu.	Psychologist/ Counsellor; Dietitian		Individual and Group	Face to Face	Community	15	3	52	Weekly	90 – 120	Yes
Bacon 2002	Health at Every Size - control	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor		Group	Face to Face	Community	12	6	30	Weekly for first 6m, then monthly	1.5 hour	No
	Diet Group - intervention	Diet and exercise	No	Nutrition Edu.	Dietitian		Group	Face to Face	Community	12	6	30	Weekly for first 6m, then monthly	1.5 hour	No
Barnes 2017	Treatment as usual (N/A)	Control	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Nutrition - ATTENTION CONTROL	Diet only	No	Nutrition Edu.	Other AHPs		Individual	Face to Face Internet; Print	Community	3	3	5	Every 3 weeks	60 mins the first session and 20 mins the rest (4 sessions)	
	Motivational interviewing	Diet and exercise	No	Nutrition Edu.			Individual	Face to Face; Internet; Print	Community	3	3	5	Every 3 weeks	60 mins the first session and 20 mins the rest (4 sessions)	
Bartels 2015	Control, Fitness club membership	Exercise only	No			No	Individual	Face to Face	Community			1			No
	IN SHAPE	Diet and exercise	No	Nutrition Edu.	Health Trainer; Personal Trainer	Yes	Individual	Face to Face	Community	12	12	52	Weekly	45 – 60	Yes
Beavers 2017	Weight loss	Diet only	Yes	Nutrition Edu.; Help following programme end		Yes	Individual and Group	Face to Face	Community	18	6	48	4/m (1-6m); 3/m (7-12m); 1/m (12-18m)	60	Yes
	Weight loss + Aerobic training	Diet and exercise	Yes	Nutrition Edu.; Help following programme end		Yes	Individual and Group	Face to Face	Community	18	6	312	4/month (1-6m) 3/Month (7-12m); 1/Month (12-18m); 4 days/week exercises sessions (1-18m)	60 minutes WL sessions; 45 exercise sessions	Yes
	Weight loss + Resistance training	Diet and exercise	Yes	Nutrition Edu.; Help following programme end		Yes	Individual and Group	Face to Face	Community	18	6	312	4/month (1-6m); 3/Month (7-12m); 1/Month (12-18m); 4 days/week	60 minutes WL sessions; 45 exercise sessions	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
													exercises sessions (1-18m)		
Beeken 2017	Usual care	Diet and exercise	No	Nutrition Edu.	Health care professional (not specified)	No	Individual and Group	Other	Health Care; Community	Varied (12 weeks, min. 2 appts, 12 weekly sessions, monthly appts)	varied	Varied			Yes
	10TT	Diet and exercise	No	Nutrition Edu.; Help following programme end	Nurse (General)	Yes	Unclear	Face to Face; Telephone; Print	Health Care	3	3	1	Single session	30	No
Bennett 1986	Group Contact Control	Diet only	Yes	Nutrition Edu.	Psychologist/ Counsellor; Dietitian	Unclear	Individual and Group	Face to Face	Community	4	4	6	Group sessions in weeks 1, 2, 3, 10, 15, individual sessions week 16;		Yes
	Individual Contact Control	Diet only	Yes	Nutrition Edu.	Psychologist/ Counsellor; Dietitian	Unclear	Individual and Group	Face to Face	Community	4	4	13	Group sessions in weeks 1, 2, 3, 10, 15; individual sessions (2 in weeks 4 and 5; one in weeks 6, 7, 9, 16)	Individual sessions (20 minutes). Group session: Not reported.	Yes
	Insight Control	Diet only	Yes	Nutrition Edu.	Psychologist/ Counsellor; Dietitian	Unclear	Individual and Group	Face to Face	Community	4	4	13	Group sessions in weeks 1, 2, 3, 10, 15; individual sessions (2 in weeks 4 and 5; one in weeks 6, 7, 9, 16)	Individual sessions (1 hour). Group session: Not reported.	Yes
	Cognitive Rehearsal	Diet only	Yes	Nutrition Edu.	Psychologist/ Counsellor; Dietitian	Unclear	Individual and Group	Face to Face	Community	4	4	13	Group sessions in weeks 1, 2, 3, 10, 15; individual sessions (2 in weeks 4 and 5; one in weeks 6, 7, 9, 16)	Individual sessions (1 hour); Group session: Not reported.	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Bennett 2012	Control, Usual care	Diet only	No			No	Other – Print only	Print							No
	Be Fit, Be Well	Diet and exercise	Yes	Nutrition Edu.	Health care professional (not specified)	Yes	Individual and Group	Face to Face; Telephone; Internet	Community; Home	24	12	30	Monthly for the first year and bimonthly for the second year. Additional 12 optional monthly group sessions	15-20 mins; Telephone counselling sessions were held monthly for the first year and bimonthly for the second year. There were an additional 12 optional monthly group sessions	Yes
Bennett 2013	Control, usual care	Control	No			No				12					No
	Weight gain prevention intervention	Diet and exercise	No	Nutrition Edu.		Yes	Individual	Telephone;	Community; Home	12	12	64	Weekly (52) and monthly (12)	10 mins (52 weekly IVR (interactive voice response calls)) 12 monthly 20 min calls	Yes
Berendsen 2011	Standard combined lifestyle intervention	Diet and exercise	No	Nutrition Edu.	Nurse (General); GP; Dietitian; Physiotherapist	No	Individual and Group	Face to Face	Health Care; Home	12	12	22			No
	Supervised combined lifestyle intervention	Diet and exercise	Yes	Nutrition Edu.	Nurse (General); GP; Dietitian Physiotherapist	No	Individual and Group	Face to Face	Health Care; Home	12	12	56			No
Berry 2014	Control	Control	No			No									No
	Family based. Nutrition, exercise and coping skills intervention	Diet and exercise	No	Nutrition Edu.	Nurse (General); Dietitian; Personal Trainer	No	Group	Face to Face	Community	12	3	21	Weekly for 3m; Monthly until 12m	Weekly for 12 weeks. 60 mins nutrition and exercise education and coping skills	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														followed by 45 mins of exercise. Monthly for 9m 60 mins class and 45 mins exercise.	
Bertram 1990	Control - diet only	Diet only	No	Nutrition Edu.		No	Individual	Print	Home	4	4	0			No
	Diet plus lectures	Diet only	No	Nutrition Edu.	Dietitian	No	Group	Face to Face; Print	Community	4	4	16	Weekly	1 hour	No
	Diet plus exercise	Diet and exercise	No	Nutrition Edu.	Personal Trainer	No	Group	Face to Face; Print	Community	4	4	64	3 x per week	1 hour	No
Bertz 2012	Control	Control	No			No									No
	Diet Only	Diet only	No	Nutrition Edu.	Dietitian	No	Individual	Face to Face; Telephone; SMS	Health Care; Community; Home	3	3	2	Week 0, 6	1.5 hrs at start of intervention, 1hr at week 6	Yes
	Exercise only	Exercise only	No		Physiotherapist	No	Individual	Face to Face; Telephone; SMS	Health Care; Community; Home	3	3	2	Week 0, 6	1.5 hours at start of intervention, 1 hour at week 6	No
	Intervention	Diet and exercise	No	Nutrition Edu.	Dietitian; Physiotherapist	No	Individual	Face to Face; Telephone; SMS	Health Care; Community; Home	3	3	4	Week 0, 6	2 x 1.5 hours at start of intervention, 2 x 1 hour at week 6	Yes
Beutel 2006	Behavioural therapy	Diet and exercise	No	Help following programme end	Physician; Psychologist/ Counsellor	Yes	Group	Face to Face	Inpatient	1.5	1.5			40	Yes
	Psychodynamic treatment	Diet and exercise	No		Physician; Psychologist/ Counsellor	Yes	Individual and Group	Face to Face	Inpatient	1.5	1.5			40	Yes
Bliddal 2011	Control, low-energy diet	Diet only	Yes	Nutrition Edu.	Dietitian	Unclear	Group	Face to Face	Community			5	Weeks: 0, 8, 32, 36, 52	2 hours	No
	Intensive low-energy diet	Diet only	Yes	MR-F; Nutrition Edu.	Dietitian	Unclear	Group	Face to Face	Community; Home	12	8.3	44	Baseline, weekly for 32 weeks then every 2 weeks	1.5 hours	No
Bo 2007	Control standard care	Control	No	Nutrition Edu.	GP	Yes	Individual	Face to Face	Health Care	0		1			No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Intervention lifestyle by trained professional	Diet and exercise	No	Nutrition Edu.	Physician; Nutritionist	Yes	Individual and Group	Face to Face; Print	Health Care; Community	12	12	6		60	Yes
Brown 2014	Control	Control	No			No									No
	RENEW	Diet and exercise	Yes	MR-P; Nutrition Edu.	Nurse (General); Other AHPs; Personal Trainer	No	Group	Face to Face; Telephone; Print	Health Care; Home	12	3	63	Weekly	Weeks 1-12 intensive intervention (weekly 3 hour intervention; 2 meal replacements per day, 1 hour exercise 2 x per week). Weeks 13-24 maintenance phase (3 hour monthly session, 1 hour exercise 2 x per week, weekly phone calls, weekly newsletter). Weeks 25-52 intermittent support (weekly phone calls and monthly mailings).	No
Burke 2005	Control usual care	Control	No			No		Face to Face; Print	Health Care						
	Low sodium + fish diet	Diet and exercise	No	Nutrition Edu.	Physician; Dietitian	No	Individual and Group	Face to Face; Telephone; Print;	Health Care; Home	16	4	18	6 group plus individual (0-4m). Then, group: 2 x month for 1st month. 1 x month for 2 months. Then 1 x every 3m	Group = 90 mins. Length of individual sessions not stated.	

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Burke 2015	Standard behavioural weight loss treatment	Diet and exercise	Yes	Nutrition Edu.	Health care professional (not specified)	No	Group	Face to Face	Community; Home	18	12	20	Weekly the first month, biweekly the second month, monthly for next 10 months, and every 6 weeks for 13-18m.	1 hour group sessions	
	Self-efficacy enhancement plus standard behavioural weight loss treatment	Diet and exercise	Yes	Nutrition Edu.	Health care professional (not specified)	No	Individual and Group	Face to Face; Telephone	Community; Home	18	12	50	SE - 1:1 every 2 weeks for first 12m. Then at least monthly. SBT: weekly the first month, biweekly the second month, monthly for next 10 months, and every 6 weeks for months 13-18.	1 hour group session. 1:1 sessions: 23 mins.	
Cesa 2013	Integrated Multimodal Medically Managed Inpatient Program	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor; Dietitian	No	Individual and Group	Face to Face	Inpatient	1.5	1.5	3	Weekly	60	Yes
	Cognitive Behavior Therapy	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor; Dietitian	No	Individual and Group	Face to Face	Inpatient	1.5	1.5	6	Weekly	60	Yes
	VR-Enhanced Cognitive Behavior Therapy	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor; Dietitian	No	Individual and Group	Face to Face; Internet	Inpatient	1.5	1.5	6	Weekly	60	Yes
Chaiya soot 2018	Control, Lifestyle Education Intervention	Diet and exercise	No	Nutrition Edu.	Dietitian	No	Individual and Group	Face to Face; Print		3	3	5	Baseline, 2, 4, 8, 12 weeks	30	Yes
	Lifestyle Education Intervention plus Meal Replacements	Diet and exercise	No	MR-P; Nutrition Edu.	Dietitian	No	Individual and Group	Face to Face; Print		3	3	5	Baseline, 2, 4, 8, 12	30	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Chee 2017	Usual Care	Diet and exercise	Yes	Nutrition Edu.	Dietitian	Unclear	Unclear	Face to Face; Print	Health Care	6	12	4	Every 3m		Yes
	tDNA Conventional Counseling	Diet and exercise	Yes	MR-P; Nutrition Edu.	Physician; Dietitian	Unclear	Unclear	Face to Face; Print	Health Care	6	12	8	Monthly 0-6m then every 3m		Yes
	tDNA Motivational Interviewing	Diet and exercise	Yes	MR-P; Nutrition Edu.	Physician; Dietitian	Unclear	Unclear	Face to Face; Print	Health Care	6	12	8	Monthly 0-6m then every 3m		Yes
Cheskin 2008	Standard diet	Diet and exercise	Yes	Nutrition Edu.	Dietitian	No	Individual and Group	Face to Face	Community; Home	20	8	36	Group: every 2 weeks for 0-34 weeks, then mthly 12-20m. 3 individual meetings		Yes
	Meal replacement	Diet and exercise	Yes	MR-P; Nutrition Edu.	Dietitian	No	Individual and Group	Face to Face	Community; Home	20	8	36	Group: every 2 weeks for 0-34 weeks, then mthly 12-20m. 3 individual meetings		Yes
Cheyette 2007	Control	Diet only	No	Nutrition Edu.	Dietitian	No	Individual	Face to Face	Health Care			1 minimum	Annually		No
	Weight No More intervention group	Diet and exercise	No	Nutrition Edu.; Help following programme end	Dietitian; Physiotherapist	Unclear	Group	Face to Face; Print	Community	4	4	8	Fortnightly	1.5 hours	No
Christensen 2012	Reference group	Control	No	Nutrition Edu.		No	Group	Face to Face		12		12	Monthly	2 hours	No
	Intervention group	Diet and exercise	No	Nutrition Edu.; Help following programme end		No	Group	Face to Face	Workplace	12	3	48	Weekly	1 hour; Participants also instructed to spend additional personal time doing physical exercise (see 'Procedures')	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Cleo 2018	TTT Top Ten Tips habit formation	Diet and exercise	No			No	Group	Face to Face; Print	Community; Home	3	3	13	Weekly phone calls	2 hrs group induction; Call length not stated.	No
	DSD Do Something Different online software	Diet and exercise	No			No	Individual and Group	Face to Face; Telephone; Internet	Community; Home	3	3	13	Weekly tasks and phone calls	2 hrs group induction. Call length not stated. tasks, length not stated	Yes
	Wait list control (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cole 2013	Control - individualised counselling	Diet and exercise	No	Nutrition Edu.	Dietitian	No	Individual	Face to Face	Health Care	3	3	1	At least 1 session over 3m	45 – 60	No
	Intervention-shared medical appointment	Diet and exercise	No	Nutrition Edu.	Nurse (General); Dietitian; Nutritionist	No	Group	Face to Face	Health Care	3	3	3	3 sessions over 3m	90	No
Conroy 2015	Self-guided	Diet and exercise	No	Nutrition Edu.	Other	No	Other - Self-guided manual	Print	Home	3	3			12-week self-guided manual	No
	Interventionist led	Diet and exercise	No	Nutrition Edu.	Physician; Other	No	Group	Face to Face	Health Care	3	3	12	Weekly	60 mins	No
Cooper 2010	Guided Self-Help Control	Control	No	Nutrition Edu.	Psychologist/ Counsellor	Yes	Individual	Face to Face; Telephone	Health Care; Home	5.5	5.5	17		20 mins; 'lasted 24 weeks and involved two initial face-to-face sessions with a therapist followed by up to 15 20-min telephone sessions.'	
	Behaviour Therapy	Diet only	Yes	Nutrition Edu.; Help following programme end	Physician; Psychologist/ Counsellor; Dietitian	Yes	Individual	Face to Face	Health Care	10	10	24	Weekly for the first 7 weeks and every 2 weeks from week 8 to 44.	50 mins; Weight loss phase lasted until week 24-30.	
	Cognitive Behaviour Therapy	Diet and exercise	Yes	Nutrition Edu; Help following programme end	Physician; Psychologist/	Yes	Individual	Face to Face	Health Care	10	10	24	Weekly for the first 7 weeks and every 2 weeks from 8 to	50 mins;	

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
					Counsellor; Dietitian								week 44.	Weight loss phase lasted until week 24-30.	
Cousins 1992	Control	Diet and exercise	No	Nutrition Edu.; Help following programme end		No	Other	Print	Home						No
	Individual	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Dietitian	No	Group	Face to Face; Print	Community	12	6	30	24 x weekly, then 6 x monthly		Yes
	Family	Diet and exercise	Yes	Nutrition Edu.	Dietitian	No	Group	Face to Face; Print	Community	12	6	30	24 x weekly, then 6 x monthly		Yes
Craighead 1989	Control, minimal contact	Diet and exercise	No	Nutrition Edu.		No	Other - 12 written lessons with feedback	Print	Home	12	6				No
	Contracted Exercise	Diet and exercise	No	Nutrition Edu.	Other	No	Group	Face to Face; Print	Community	12	6	12	Weekly	60	No
	Supervised Exercise	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor; Other	No	Group	Face to Face; Print	Community	12	6	33	Weekly group meetings from week 5. 3 x per week from week 5 to 12	60 mins 1 x per week for 12 weeks. 40 mins 3 x per week for 8 weeks (from week 5 to week 12).	Yes
Crowley 2017	Group Medical Visit		Yes		Nurse (General); GP; Physician; Dietitian	Unclear	Individual and Group	Face to Face; Print	Health Care	11.1	3.7	8	Every 4 weeks for 16 weeks and every 8 weeks until week 48	1.5-2 hours	Yes
	Intensive Weight Management Group Medical Visit	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Nurse (General); GP; Physician; Dietitian	Unclear	Individual and Group	Face to Face; Print	Health Care	11.1	3.7	16	Every 2 weeks for 16 weeks and every 8 weeks until week 48	1.5-2 hours	Yes
	Control	Control	No			No									No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Dale 2009	Modest	Diet and exercise	No	MR-F; Nutrition Edu.	Dietitian; Exercise physiologist;	Unclear	Individual and Group	Face to Face; Telephone;	Community	4	4	36	Twice weekly		Yes
	Intensive intervention	Diet and exercise	No	Nutrition Edu.	Dietitian; Exercise physiologist	Unclear	Individual and Group	Face to Face; Telephone	Community	4	4	36	Twice weekly		Yes
Dalziel 2006	Control	Control	No	Nutrition Edu.	Physician; Dietitian	No	Unclear	Face to Face	Health Care						No
	Experimental	Diet only	No	Nutrition Edu.	Physician; Dietitian	No	Unclear	Face to Face	Health Care	24	2	3	At 8 weeks, then annually from baseline	1 hour first session, length of follow-up sessions not reported.	No
Damschroder 2014	Control, MOVE - usual care	Diet and exercise	Yes	Nutrition Edu.	Nurse (General); Psychologist/ Counsellor; Dietitian; Physiotherapist	Unclear	Group	Face to Face	Health Care	24	3	58	Weekly for 3m, then either quarterly or twice monthly	11-12 weekly open-group sessions of 90 mins each over 3 months. During months 4-12, one group met quarterly for 90 minutes and the other groups met twice a month for 60 minutes. Some participants had the option of re-enrolling in the initial series of weekly sessions. Total hours over the year ranged from 22 to 35 hours. 12-24 mths as above for mths 4-12.	Yes
	ASPIRE group, individual	Diet and exercise	Yes	Nutrition Edu.	Health Trainer	Yes	Individual	Telephone	Home	24	3	34	Same as ASPIRE-Group but duration of sessions varied	Up to 30 mins for the first 3 mths and 20 mins for the remaining 9	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	telephone counselling													mths, totalling 11 hours across the year. 12-24 mths coaching every other mth, 6 sessions.	
	ASPIRE group, group counselling	Diet and exercise	Yes	Nutrition Edu. Help following programme end	Health Trainer	Yes	Group	Face to Face	Health Care	24	3	34	Both ASPIRE small-changes treatment arms consisted of weekly sessions for 3m, followed by 6m of sessions every other week, and then 3 monthly sessions over 12 months, for a total of 28 sessions.	Up to 90 mins for the first 3 mths and 60 mins for the remaining 9 mths, totalling 33 hours across the year. 12-24 mths coaching every other mth, 6 sessions.	Yes
Daubenmier 2016	Active control intervention	Diet and exercise	Yes	Nutrition Edu.	Dietitian	Unclear	Group	Face to Face; Print	Community	5.5	5.5	16	12 weekly then biweekly for 3 sessions, and then one session one month later plus a single all-day weekend session	16 sessions: 2 hours; 5-hour all-day session	Yes
	Mindfulness Intervention	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Dietitian	Yes	Group	Face to Face; Print	Community	5.5	5.5	16	12 weekly then biweekly for 3 sessions, and then one session one month later plus a single all-day weekend session	16 sessions: 2.5 hours; 6.5 hour all day session	Yes
Daumit 2013	Control, Usual care	Control	No	Nutrition Edu.		No	Other					1			
	ACHIEVE	Diet and exercise	Yes	Nutrition Edu.	Health Trainer	Yes	Individual and Group	Face to Face	Health Care	18	6	279	1-6m: Group weight management class weekly, individual visit monthly, group PA class 3x per week, weigh-in	Group weight management class = 45 mins; Individual visit with interventionist 15-	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
													weekly; 7-18m: monthly group and individual class, group PA class 3x week, weigh in weekly	20 mins; group PA class 45 mins, weigh-in = 2 mins	
de Zwaan 2017	Internet-based guided self-help treatment		No	Help following programme end		No	Individual	Internet	Home	4	4	17-18	Participants email coach once per week. Coach emails back once per week.	No indication of time taken to complete each of the 11 modules is given.	No
	Cognitive Behavioural Therapy	Diet and exercise	No	Help following programme end		No	Individual	Face to Face	Health Care	4	4	20	Twice weekly for first month, then once weekly during remaining 3 months.	50 mins; Participants also given additional homework: expected time to complete this is not given.	Yes
Delahanty 2015	Dietitian Referral group	Diet and exercise	No	Nutrition Edu.		Unclear	Individual	Face to Face; Print	Health Care			1 +	Individualised – 1 session plus follow-up sessions on individual basis at dietitian's discretion	Initial session (1 hour); follow-up sessions (20-40 minutes)	Yes
	Group lifestyle intervention	Diet and exercise	No	MR-P; Nutrition Edu.	Physician; Dietitian	Yes	Group	Face to Face; Print	Health Care	6	6	19	Weekly	1.5 hours	No
deRoon 2017	Control	Control	No			No		Telephone	Home	4					No
	Diet	Diet only	No	Nutrition Edu.	Dietitian	No	Individual and Group	Face to Face; Telephone;	Community; Home	12	4		Weekly		No
	Exercise	Diet and exercise	No		Dietitian; Physiotherapist	No	Group	Face to Face; Telephone	Community; Home	12	4	32	2 x week groups sessions; 2 x Nordic walking	4 hours per week exercise program; two x 1 hour group sessions; 2 x 1 hour sessions Nordic walking per week - individual home-	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														based exercise with 'Supervised lessons of Nordic walking by instructors are organised to increase motivation and compliance." (4 hours per week for 16 weeks); Unclear if all Nordic walking sessions are organised - did not contribute to total N of sessions	
deVos 2016	Control	Control	No			No									
	Tailor-made lifestyle intervention	Diet and exercise	No	Nutrition Edu.	Dietitian; Physiotherapist	No	Individual and Group	Face to Face	Community	30	6	23 +		First 3 dietician appointments were biweekly, after that the frequency of visits was determined by mutual agreement. Invited to attend 20 weekly physical activity classes. "...definition of compliance as attendance at ≥ 6 dietitian visits and ≥7 physical activity classes."	Yes
	BED	Diet and exercise	Yes	MR-F; Nutrition Edu.	Nurse (General);	No	Group	Face to Face	Community	6	3	24	Weekly	1.5 hour	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
DeZwaan 2005					Physician; Dietitian										
	BED plus CBT	Diet and exercise	Yes	MR-F; Nutrition Edu.	Nurse (General); Physician; Dietitian	No	Group	Face to Face; Print	Community	6	3	34	Weekly and twice weekly in the last 10 weeks (CBT)	1.5 hour group sessions (weeks 1 -24) plus 1.5-hours of CBT (Week 14-24)	No
Diabetes Prevention Program R G 2009	Placebo	Diet and exercise	No	Nutrition Edu.	Other		Individual	Face to Face; Print		36	36	4	Annually	20 – 30	
	Metformin (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Lifestyle	Diet and exercise	Yes	MR-P; Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian; Exercise physiologist; Health Trainer	Yes	Individual and Group	Face to Face; Telephone; Print	Community	36	6	358	16 sessions in first 24 weeks then monthly. [At least 2 exercise classes per week]	45 mins; Core curriculum sessions 30-60 mins; Sessions: 16+6+12+12=46. [Physical activity 2x52 x 3 years = 312]	Yes
Djuric 2002	Control	Control	No	Nutrition Edu.	Dietitian	No	Unclear	Print		0	0	1			
	Weight Watchers	Diet and exercise	No	Nutrition Edu.	Dietitian	Yes	Group	Face to Face	Community	12	12	52	Weekly		
	Individualized group	Diet and exercise	Yes	Nutrition Edu.	Dietitian		Individual and Group	Face to Face; Telephone; Print	Community	12	3	21	0-3m: weekly; 3-6m: every other week; 6-12m: monthly		Yes
	Comprehensive group	Diet and exercise	Yes	Nutrition Edu.	Dietitian		Individual and Group	Face to Face; Telephone	Community	12	3	73	Weekly		Yes
Donnelly 2013	Phone Group	Diet and exercise	Yes	MR-P; Nutrition Edu.; Help following programme end	Physician; Dietitian; Health Trainer	Yes	Group	Telephone	Home	18	6	38	0-6m: weekly 7-9m: 2 x per month 10-12m: monthly then every other month until 18m .	60	Yes
	Face-to-Face Group	Diet and exercise	Yes	MR-P; Nutrition Edu.; Help	Physician; Dietitian;	Yes	Group	Face to Face	Community	18	6	38	0-6m: weekly 7-9m: 2 x per month 10-12m: monthly	60	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
				following programme end	Health Trainer								then every other month until 18m		
Duncan 2016	Control	Control	No		GP	No	Individual	Face to Face	Health Care			1			No
	Intervention	Diet and exercise	No	Nutrition Edu.; Help following programme end	Health Trainer	Yes	Individual	Face to Face	Home	4	4	6	Ranged from 1-4 weeks	60	Yes
Eakin 2014	Usual care	Control	No	Nutrition Edu.		Unclear	Individual	Print	Health Care			0			No
	Telephone intervention	Diet and exercise	Yes	Nutrition Edu.	Health Trainer	Yes	Individual	Telephone; Print	Health Care	18	6	27	4 weekly calls; fortnightly calls for 5 months; monthly calls for 12 months.		Yes
Eaton 2016	Control, Standard Intervention	Diet and exercise	Yes	Nutrition Edu.	Physician; Psychologist/ Counsellor	Yes	Individual	Face to Face; Print	Community; Home	18	4	3	In person sessions at 0, 6, 12m. Mailing at 1, 2, 4, 15 & 18m	90	No
	Enhanced Intervention	Diet and exercise	Yes	Nutrition Edu.	Physician; Psychologist/ Counsellor; Dietitian	Yes	Individual	Face to Face; Telephone; Print; Video	Community; Home	24	6	30	0-6m: weekly feedback & mailings, monthly phone, 2 DVDs. 6-12m: weekly mailings, bi-monthly phone. 12-18m: bimonthly mailings, 2 DVDs 1 phone. 18-24m: monthly mailing.	90	Yes
Fahey 2018	Self-paced condition	Diet and exercise	Yes	Nutrition Edu.		Yes	Individual	Telephone; Internet; Print	Home	12	4	28	Same schedule as per intervention group available, however upon self-initiation.	Telephone call length not stated; Aimed for 225-250 mins of weekly exercise goal	Yes
	Counselor-initiated condition	Diet and exercise	Yes	MR-P; Nutrition Edu.		Yes	Individual	Telephone; Internet	Home	12	4	Up to 28	0-4m: weekly 5-8m: 2 x per month 9-12m: 1 x per month	Telephone call length not stated; Aimed for 225-250 minutes of	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														weekly exercise goal	
Fernandez-Ruiz 2018	Control	Control	No			Unclear									No
	Intervention (healthy eating, exercise & CBT)	Diet and exercise	No	Nutrition Edu.	Nurse (General); Physician; Psychologist/ Counsellor; Nutritionist; Exercise physiologist	Unclear	Individual and Group	Face to Face	Health Care	12	12	232	4 x per week physical activity; monthly CBT & health ed.	208 exercise sessions: 4 x per week, 40 mins. CBT 12 sessions, 1 per month, 60 mins. Health education (nurse) 12 sessions, 1 per month, 60 mins.	Yes
Finkelstein 2017	Control	Diet and exercise	No	Nutrition Edu.	Physician; Dietitian; Physiotherapist	No	Individual and Group	Face to Face	Health Care; Home	4	4	8	Monthly (?) for exercise and diet.	Lengths of sessions not stated. Individualised exercise prescription + 4 physiotherapist led gym session. Dietician led individual and group sessions in weeks 4,8,12 and 16. This may represent 4 sessions or more than 4 sessions - not clear.	Yes
	Financial Reward	Diet and exercise	Yes	Nutrition Edu. Fin. Incentives	Physician; Dietitian; Physiotherapist	No	Individual and Group	Face to Face	Health Care; Home	8	4	18	Weigh-ins biweekly for 2m; weekly for 6m; Monthly (?) for exercise and diet.	Lengths of sessions not stated. Individualised exercise prescription + 4 physiotherapist led gym session. Dietician led	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														individual and group sessions in weeks 4,8,12 and 16. This may represent 4 sessions or more than 4 sessions - not clear.	
Fisher 2011	Diet only	Diet only	No	MR-F		No		Face to Face	Health Care	6	6	0			No
	Diet + aerobic training	Diet and exercise	No	MR-F	Exercise physiologist	No	Group	Face to Face	Health Care; Community	6	6	78		50	No
	Diet + resistance training	Diet and exercise	No	MR-F	Exercise physiologist	No	Group	Face to Face	Health Care; Community	6	6	78		50	No
Foley 2016	Usual care (Control)	Control	No			No	Other	Print	Health Care						No
	Weight loss intervention	Diet and exercise	Yes	Nutrition Edu.	Psychologist/ Counsellor; Health care professional (not specified); Other	No	Individual	Face to Face; Telephone; Internet; App; Print; SMS	Health Care; Home	12	3	18	Calls 1-4: weekly; Calls 5-10: biweekly Calls 11-18: monthly		No
Foreyt 1993	Control (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Exercise only	Exercise only	Yes	MR-F; Help following programme end		Unclear	Group	Face to Face	Community; Home	12	3	23	12 weekly sessions, then 3 fortnightly sessions then 8 monthly sessions.	60	Yes
	Diet only	Diet only	Yes	Nutrition Edu.; Help following programme end	Dietitian	Unclear	Group	Face to Face	Community	12	3	23	12 weekly sessions, then 3 fortnightly sessions then 8 monthly sessions.	60	Yes
	Exercise plus diet	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Dietitian	Unclear	Group	Face to Face	Community; Home	12	3	23	12 weekly sessions, then 3 fortnightly sessions then 8 monthly sessions.	60	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Forman 2013	Standard Behavioural Treatment	Diet and exercise	Yes	Nutrition Edu.	Psychologist/ Counsellor	Yes	Group	Face to Face	Community	15	9	30	Weekly for 20 weeks, then biweekly to 40 weeks	75	No
	Acceptance-Based Behavioural Treatment	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	Yes	Group	Face to Face; Print	Community	15	9	30	Weekly for 20 weeks, then biweekly to 40 weeks	75	No
Forman 2016	Standard Behavioural Treatment	Diet and exercise	Yes	Nutrition Edu.	Physician		Individual and Group	Face to Face	Community	12	6	25	Weekly for 16 sessions, biweekly for 5 sessions, monthly for 2 sessions, and bimonthly for 2 sessions	75	
	Acceptance-Based Treatment	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Physician		Individual and Group	Face to Face	Community	12	6	25	Weekly for 16 sessions, biweekly for 5 sessions, monthly for 2 sessions, and bimonthly for 2 sessions	75	
Foster-Schubert 2012	Control-usual care	Control	No			No	Other – no contact								
	Calorie reduced diet	Diet only	Yes	Nutrition Edu.	Dietitian	No	Individual and Group	Face to Face; Telephone; Internet	Community; Home	12	6	38	2 + 24 weekly 0-24. Then 2 per month (12) during weeks 24 – 52		Yes
	Aerobic exercise (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Intervention - diet and exercise	Diet and exercise	Yes	Nutrition Edu.	Dietitian; Exercise physiologist;	No	Individual and Group	Face to Face; Telephone; Internet	Community; Home	12	6	194	3 per week exercise. Plus 38 diet sessions.	45	Yes
Freitas 2017	Weight loss program + Sham	Diet only	No	Nutrition Edu.	Psychologist/ Counsellor; Nutritionist;	Unclear	Individual and Group	Face to Face	Community	3	3	36	Weekly therapy sessions; two	60	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
					Physiotherapist								weekly exercises sessions		
	Weight loss program + Exercise	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor; Nutritionist; Physiotherapist	Unclear	Individual and Group	Face to Face	Community	3	3	36	Weekly therapy sessions; two weekly exercises sessions	60	Yes
Fuller 2012	Western diet group	Diet and exercise	No		Dietitian	No	Individual	Face to Face	Health Care; Community	3	3	1			No
	Korean diet group	Diet and exercise	No	MR-F	Dietitian	No	Individual	Face to Face	Health Care; Community	3	3	1			No
Gold 2007	Commercial programme eDiets	Diet and exercise	Yes	Nutrition Edu.			Other - online weight loss programme	Internet	Home	0	12	1		1 x intro session. Weekly online exercise journal Online meetings, chat room, mentor system	Yes
	Structured VTrim	Diet and exercise	Yes	Nutrition Edu.			Individual	Internet	Home	12	6	39		6M of weekly 1 hour sessions = 26 (Weekly self-reported weight. Weekly homework and weekly feedback. Weekly feedback on journal entries.) 6 – 12m Biweekly meetings = 13	Yes
Goodwin 2014	Mailed-based intervention	Diet and exercise	No	Nutrition Edu.		No	Individual	Print	Community	12	12	2	0, 12m		No
	Individual lifestyle intervention	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Health Trainer	Unclear	Individual	Telephone; Print	Community	12	6	19	Weekly (0-1m); Biweekly (2-3m); Monthly (4-6m); every 2 months (7-12m); every 3 months (13-24m)	30 – 60	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Gorin 2013	Standard Behavioural Weight loss	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Nutritionist; Exercise physiologist	Unclear	Group	Face to Face	Community	18	6	52	Weekly group meetings for 6m followed by biweekly meetings for 12m		Yes
	Enhanced home environment behavioural weight loss	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Nutritionist; Exercise physiologist	Unclear	Group	Face to Face; Internet; Print; Video	Community	18	6	52	Weekly group meetings for 6m followed by biweekly meetings for 12 months		Yes
Gorin 2015	Usual care	Control	No	Nutrition Edu.		Unclear	Unclear								No
	STRIDE	Diet and exercise	Yes	Nutrition Edu.	Psychologist/ Counsellor; Nutritionist	Yes	Individual and Group	Face to Face; Telephone; Print	Health Care	12	6	38	Weekly 0-6m;Monthly 6-12m	2 hours	Yes
Grilo 2011	Cognitive Behavioral Therapy (CBT)	Diet only	No	Nutrition Edu.	Psychologist/ Counsellor	Yes	Group	Face to Face	Health Care	5.5	5.5	16	16 sessions over 24 weeks	60	No
	Behavioral weight loss (BWL)	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor	Yes	Group	Face to Face	Health Care	5.5	5.5	16	16 sessions over 24 weeks	60	No
	CBT + BWL (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grilo 2014	Placebo	Control	No		Physician	Unclear				4	4	0			No
	Placebo/CBTsh	Diet only	No	Nutrition Edu.; Help following programme end	Physician	Yes	Individual	Face to Face; Print	Health Care	4	4	1			No
	Sibutramine (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Sibutramine/ CBTsh (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hagemann 2017	Web-based only	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Nurse (General)	No	Individual	Internet	Home	30	6	61	0-6m: weekly. 6-18m: biweekly; 18-24m: monthly 24-30m: bimonthly	0 to 6m new content weekly posted weekly. 6 to 18m posted biweekly. Videos monthly,	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														18 to 24 months Videos bimonthly, 24 to 30 months. Weight logging daily.	
	Web-based discussion	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Nurse (General); Other	Yes	Individual	Internet; Other	Home	30	6	109	0-6m: weekly; 6-18m: biweekly; 18-24m: monthly; 24-30m: bimonthly	As for WO Plus O-6 mths weekly primers. 6-12 mths biweekly primers. 12-18 mths monthly primers.	Yes
	Web-based email	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Nurse (General); Psychologist/ Counsellor; Dietitian	No	Individual	Internet; Other	Home	30	6	106	0-6m: weekly; 6-18m: biweekly; 18-24m: monthly; 24-30m: bimonthly	As for WO. Plus O-6 mths weekly feedback. 6-12 mths biweekly feedback. 12-18 mths monthly feedback.	Yes
Hakala 1993	Individual community-based counselling	Diet only	Yes	Nutrition Edu.		Unclear	Individual	Face to Face; Print	Health Care	24	12	15	Year 1: Monthly Year 2: 4-monthly	20	No
	Group in-patient rehabilitation	Diet and exercise	Yes	Nutrition Edu.	Physician; Nutritionist; Physiotherapist; Other AHPs	Unclear	Individual and Group	Face to Face	Residential; Health Care	24	12	84	0-2 weeks: daily (inpatient 44 sessions over 2 weeks). Weeks 2-8: weekly. Months 2-12: fortnightly. Months: 12-24: monthly	1 hour	No
Hanson 1976	No treatment control condition (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Attention-placebo	Control	No		Psychologist/ Counsellor	No						0			No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	control condition														
	Conventional self-management condition	Diet only	No		Psychologist/ Counsellor	No	Group	Face to Face; Print		2.5	2.5	10	Weekly	1 hour	No
	Programmed text with low therapist-group contact	Diet only	No		Psychologist/ Counsellor	No	Group	Face to Face; Print		2.5	2.5	3	First meeting week 1, second meeting week 5, and 3 meeting week 10		No
	Programmed text with high therapist-group contact	Diet only	No		Psychologist/ Counsellor	No	Group	Face to Face; Print		2.5	2.5	10	Weekly	1 hour	No
Hardcastle 2013	Control	Diet and exercise	No	Nutrition Edu.	Nurse (General)	Yes	Other - Single appointment; provided leaflet	Print	Health Care	6	6	1	Once		No
	MI counselling intervention	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor; Personal Trainer	Yes	Individual	Face to Face	Health Care	6	6	5	Anytime over a 6m period	20 – 30	Yes
Harrigan 2016	Usual Care Group	Diet and exercise	No			Unclear	Unclear	Unclear;	Health Care			2			No
	Telephone Weight Loss Counseling	Diet and exercise	Yes		Dietitian	No	Individual	Telephone	Home	6	6	11	Once per week (month 1), then every two weeks (months 2 and 3), and once per month (months 4, 5, and 6)	30	No
	In-Person Weight Loss Counseling	Diet and exercise	Yes		Dietitian	No	Individual	Face to Face	Health Care	6	6	11	Once per week (month 1), then every two weeks (months 2 and 3), and once per month (months 4, 5, and 6)	30	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Harris 2017	Waist Winners Too	Diet and exercise	No	Nutrition Edu.; Help following programme end	Dietitian; Health care professional (not specified)	Yes	Individual	Face to Face	Health Care; Home	12	6	15	Every 2-3 weeks during weight loss phase (months 1-6); monthly during maintenance phase (months 7-12)	40 – 60	Yes
	TAKE 5	Diet and exercise	No	Nutrition Edu.; Help following programme end	Dietitian; Health care professional (not specified)	Yes	Individual	Face to Face	Health Care; Home	12	6	15	Every 2-3 weeks during weight loss phase (months 1-6); monthly during maintenance phase (months 7-12)	40 – 60	Yes
Hunt 2014	Control, Wait-list	Control	No	Nutrition Edu.				Print							
	FFIT	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Personal Trainer	Yes	Group	Face to Face; Print	Community	12	3	19	Weekly for 12 weeks. 6 emails over 9 months. 1 reunion at 6 months.	1.5 hours for 12 weekly sessions. Then 6 emails over 9m and 1 x reunion at 6m.	Yes
Huseinovic 2016	Control Group	Diet only	No	Nutrition Edu.		No	Other - leaflet at baseline	Print;	Health Care	0	0				No
	Diet behaviour modification Group	Diet and exercise	No	Nutrition Edu.; Help following programme end	Dietitian	Unclear	Individual	Face to Face; Telephone; Internet; Print; SMS	Health Care	12	3	4	Single face-to-face; biweekly SMS (3) followed by biweekly calls (3); monthly emails (9)	1.5 hours single face-to-face session; Call length not stated.	Yes
Irwin 2003	Control Group	Control	No							0	0	0	0	0	No
	Exercise group	Exercise onl	Yes	Help following programme end	Exercise physiologist		Group	Face to Face	Community; Home	12	3	36	3 times per week for the first 3 months and one per week the rest 9 months	45	No
Jackson 1982	Control	Control	No		Other	No	Unclear	Face to Face	Community						Yes
	Treatment	Diet and exercise	No	Nutrition Edu.; Fin. Incentives	Other	Unclear	Group	Face to Face; Print	Community	4	4	Mothers: 7 session	Mothers: fortnightly; Participants: weekly	Mothers: 1 hr sessions;	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
												s; Participants: 6 sessions		Participants: not reported	
Jackson 2018	Brief strategic therapy	Diet and exercise	Yes	Nutrition Edu.	Psychologist/ Counsellor; Dietitian; Exercise physiologist	Unclear	Individual and Group	Face to Face; Telephone	Inpatient; Home	7	7	44	1m inpatient phase (2 weekly nutrition education sessions, 5 weekly physical activity classes, 2 weekly psychotherapy sessions); 6m Outpatient phase: 8 telephone psychotherapy sessions (2 sessions per month the first two mths after discharge and one session/mth for 4 months.	45 min nutrition education; 45 min psychotherapy sessions; Telephone call length not stated.	Yes
	Cognitive-behavioral therapy	Diet and exercise	Yes	Nutrition Edu.	Psychologist/ Counsellor; Dietitian; Exercise physiologist	Unclear	Individual and Group	Face to Face; Telephone	Inpatient; Home	7	7	44	Inpatient phase (2 weekly nutrition education sessions, 5 weekly physical activity classes, 2 weekly psychotherapy sessions); Outpatient phase: 8 telephone psychotherapy sessions (2 sessions per month the first two mths after discharge and one session/mth for 4 months.	45 min nutrition education; 45 min psychotherapy sessions; Telephone call length not stated.	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Jakicic 2011	Self Help Group	Exercise only	No			No	Other - provided manual and newsletters	Print;	Community	18		1		Monthly newsletter.	No
	Moderate Physical Activity	Exercise only	Yes	Nutrition Edu.	Personal Trainer	Unclear	Individual and Group	Face to Face; Telephone; Print	Community	18	6	156	4 x per week for 6 months, weekly contact between months 7 - 18	Length of face-to-face sessions not reported; Telephone calls (< 10 mins)	No
	High Physical Activity	Exercise only	Yes	Nutrition Edu.	Personal Trainer	Unclear	Individual and Group	Face to Face; Telephone; Print	Community	18	6	156	4 x per week for 6 months, weekly contact between months 7 - 18	Length of face-to-face sessions not reported; Telephone calls (< 10 mins))	No
Jakicic 2015	Standard behavior weight loss interventions group	Diet and exercise	Yes	Nutrition Edu.	Other	Unclear	Group	Face to Face; Print	Community	18	6	52	Sessions were conducted weekly for months 1–6 and every other week during months 7–18.	Group-based intervention sessions: approximately 45 min	Yes
	ADOPT group	Diet and exercise	Yes	Nutrition Edu.	Other	Unclear	Group	Face to Face; Telephone; Print	Community	18	6	86	Sessions conducted weekly for months 1–6 and every other week during months 7–18. Biweekly phone contact; Weekly supervised exercise sessions for months 1–6; two 12-wk campaigns to promote physical activity.	Group-based intervention sessions: approximately 45 min; 10-min telephone call; Supervised physical activity sessions: A minimum of 30 min per session was encouraged. two 12-wk physical activity campaigns.	Yes
	MAINTAIN Group (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Jebb 2011	Standard care	Diet and exercise	No	Nutrition Edu.	GP	Yes	Individual	Face to Face	Health Care	0	0	1	Single session		

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Commercial programme	Diet and exercise	No	Nutrition Edu.	Health Trainer	Unclear	Group	Face to Face; Internet	Community	12	12	52	Weekly	60	Yes
Jebb 2017	Usual care	Diet only		Nutrition Edu.	Nurse (General)	No	Individual	Face to Face; Print	Health Care	3	3	6 to 12	Weekly or biweekly		Yes
	Low energy total diet replacement programme	Diet only	Yes	MR-F; Nutrition Edu.; Help following programme end	Health Trainer	Yes	Individual	Face to Face	Community	6	6	15	Weekly for first 12 weeks, then monthly		Yes
Jeffery 1995	Control group	Control	No												
	Standard Behavioural Therapy (SBT)	Diet and exercise	Yes	Nutrition Edu.	Other	Yes	Group	Face to Face; Print		18	4.6	33	Weekly for 20 weeks; Monthly from week 20 to month 18, also encouraged to attend weekly weigh-in sessions		Yes
	SBT + Incentives (I)	Diet and exercise	Yes	Nutrition Edu.; Fin. Incentives	Other	Yes	Group	Face to Face; Print		18	4.6	33	Weekly for 20 weeks; Monthly from week 20 to month 18, also encouraged to attend weekly weigh-in sessions		Yes
	SBT + Food Provision (FP)	Diet and exercise	Yes	MR-P; Nutrition Edu.	Other	Yes	Group	Face to Face; Print		18	4.6	33	Weekly for 20 weeks; Monthly from week 20 to month 18, also encouraged to attend weekly weigh-in sessions; food provided for 5 days/week		Yes
	SBT + FP + I	Diet and exercise	Yes	MR-P; Nutrition Edu.; Fin. Incentives	Other	Yes	Group	Face to Face; Print		18	4.6	33	Weekly for 20 weeks; Monthly from week 20 to month 18, also encouraged to attend		Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
													weekly weigh-in sessions; food provided for 5 days/week		
Jeffery 2003	Standard behaviour therapy	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Health Trainer	Unclear	Group	Face to Face; Print	Community	18	12	45	Weekly from 0-6 months; biweekly from 6-12 months; monthly from 12-18 months		No
	High physical activity	Diet and exercise	Yes	Nutrition Edu.; Fin. Incentives; Help following programme end	Personal Trainer	Unclear	Group	Face to Face; Print	Community	18	12	90	Weekly from 0-6 months; biweekly from 6-12 months; monthly from 12-18 months; Exercise coaches met with small groups before or after each group session.	Exercise coaches met with participants as an adjunct to regular standard behavioral treatment for 15–20 min in small groups.	Yes
Jenkins 2017	Control	Control	No	Nutrition Edu.		Unclear		Print	Health Care						No
	Dietary advice only	Diet only	Yes	Nutrition Edu.		Unclear	Individual	Telephone; Print	Health Care	6	6	9	Weekly (Month 1); Monthly (Months 0-5)	20 – 30	Yes
	Food basket only	Diet only	No			Unclear	Individual	Print; Other	Residential	6	6	Received 26 food baskets	Weekly		No
	Food and advice	Diet only	Yes	Nutrition Edu.		Unclear	Individual	Telephone; Print; Other	Health Care	6	6	9 plus 26 food baskets	Weekly (Month 1); Monthly (Months 0-5); weekly baskets	20 – 30	Yes
John 2011	Control	Diet only	No	Nutrition Edu.; Help following programme end	Dietitian	Unclear	Individual	Face to Face	Community	7.4	7.4	1	single individual sessions; monthly weigh-ins	1 hour	Yes
	Deposit contracts group	Diet only	No	Nutrition Edu.; Fin. Incentives; Help following programme end	Dietitian	Unclear	Individual	Face to Face; Print; SMS	Community	7.4	7.4	1	single individual sessions; monthly weigh-ins; text messages	1 hour	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Jolly 2011	Minimal intervention comparator	Exercise only	No				Individual	Other	Community			12			No
	Choice (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Pharmacy	Diet and exercise	No	Nutrition Edu.; Help following programme end	Other AHPs	No	Individual	Face to Face	Health Care	3	3	12	Weekly (although may not have taken place weekly in all cases.)	1st session 30 mins, follow up sessions 15-20 mins	Yes
	General practice	Diet and exercise	No	Nutrition Edu.; Help following programme end	Nurse (General); GP	No	Individual	Face to Face	Health Care	3	3	12	Weekly (although may not have taken place weekly in all cases.)	1st session 30 mins, follow up sessions 15-20 mins	Yes
	Weight Watchers	Diet and exercise	No	Nutrition Edu.	Other	Yes	Individual and Group	Face to Face	Community	3	3	12	Weekly	1 hour	No
	NHS Size Down	Diet and exercise	Yes	Nutrition Edu.	Health Trainer	Yes	Group	Face to Face	Community	3	3	8	Weekly × 6 weeks; drop-in at 9 and 12 weeks.	2 hours for weeks 1-6; Duration of drop in sessions is unclear.	No
	Rosemary Conley	Diet and exercise	No	Nutrition Edu.	Other	Yes	Individual and Group	Face to Face; Telephone; Internet	Community	3	3	12	Weekly	1.5 hours	Yes
	Slimming world	Diet and exercise	No	Nutrition Edu.	Other	Yes	Individual and Group	Face to Face; Telephone; Internet; Print	Community	3	3	12	Weekly	1.5 hours; Duration and frequency of telephone support unclear.	Yes
Jones 1986	Individual	Diet only	No	Nutrition Edu.; Help following programme end	Dietitian	No	Individual	Face to Face	Health Care		4	5	Monthly	10	Yes
	Group	Diet only	No	Nutrition Edu.; Help following programme end	Dietitian	No	Individual and Group	Face to Face	Health Care		4	5	Monthly	60	Yes
	Leaflet Individual	Diet only	No	Nutrition Edu.; Help following programme end	Dietitian	No	Individual	Face to Face; Print	Health Care		4	5	Monthly	10	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Leaflet Group	Diet only	No	Nutrition Edu.; Help following programme end	Dietitian	No	Individual and Group	Face to Face; Print	Health Care		4	5	Monthly	60	Yes
	Diary Individual	Diet only	No	Nutrition Edu.; Help following programme end	Dietitian	No	Individual	Face to Face; Print	Health Care		4	5	Monthly	10	Yes
	Diary Group	Diet only	No	Nutrition Edu.; Help following programme end	Dietitian	No	Individual and Group	Face to Face; Print	Health Care		4	5	Monthly	60	Yes
	Leaflet Diary Individual	Diet only	No	Nutrition Edu.; Help following programme end	Dietitian	No	Individual	Face to Face; Print	Health Care		4	5	Monthly	10	Yes
	Leaflet Diary Group	Diet only	No	Nutrition Edu.; Help following programme end	Dietitian	No	Individual and Group	Face to Face; Print	Health Care		4	5	Monthly	60	Yes
Jones 1999	Control Group	Control	No		Nurse (General)	Unclear	Individual	Face to Face	Community	0	0	1	Single session		No
	Weight Loss Group	Diet only	No	Nutrition Edu.	Dietitian	Unclear	Individual and Group	Face to Face	Community	30	3	8 + 4 to 9	Initial session, second session at 2-4 weeks, two monthly group sessions up to 3 months, following which group sessions are every 3-6 months		Yes
Katula 2013	Enhanced Usual Care Comparison Condition	Diet and exercise	No	Nutrition Edu.	Dietitian	Unclear	Individual	Face to Face; Print	Community	24		2	Both sessions during first 3 months		Yes
	Lifestyle Weight-Loss Intervention	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Dietitian; Health Trainer	Yes	Individual and Group	Face to Face; Telephone	Community	24	6	65	Months 1-6: Weekly group sessions plus "All participants received three personalized consultations with an RD (during		Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
													Months 1, 3, and 6)."; Months 7-24: 2 contacts per month, one group session and one phone contact		
Katzer 2008	Mail-delivered 'non-dieting' program (P3)	Diet and exercise	Yes	Nutrition Edu.; Help following programme end		No	Other – print only	Print	Home	2.3	10.3	0			No
	Group 'non-dieting' program (P2)	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian; Health Trainer	Unclear	Group	Face to Face	Community	2.3	10.3	22	Weekly for 10 weeks, fortnightly then monthly	2 hours	No
	Group 'non-dieting' program plus Relaxation (P1)	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Nutritionist	Unclear	Group	Face to Face; Other	Community; Home	2.3	10.3	22	Weekly for 10 weeks, fortnightly then monthly	2 hours	No
Keogh 2014	Intermittent dieting	Diet only	No	Nutrition Edu.; Inter. Fasting	Dietitian	No	Group	Face to Face		2	2	5	Every second week	The first visit will take approx. an hour; follow up visits will be shorter	No
	Continuous dieting	Diet only	No	Nutrition Edu.	Dietitian	No	Group	Face to Face		2	2	5	Every second week	The first visit will take approx. an hour; follow up visits will be shorter	No
Keranen 2009	Short-term counselling	Diet only	No	Nutrition Edu.	Nurse (Specialist)		Individual	Face to Face	Health Care	1	1	2	Fortnightly		Yes
	Intensive counselling	Diet only	No	Nutrition Edu.; Help following programme end	Dietitian	Yes	Individual and Group	Face to Face	Health Care	4.6	4.6	10	Fortnightly		Yes
	Control (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
King 1989	Exercise only	Exercise only				Unclear	Unclear	Face to Face; Print	Community		12				Yes
	Diet only	Diet only		Nutrition Edu.	Nutritionist	Unclear	Individual and Group	Face to Face	Community		12				Yes
Kingsley 1977	Social Pressure	Diet only	No	Nutrition Edu.	Psychologist/ Counsellor	Yes	Group	Face to Face;	Community	2	2	8	Weekly	1 hour	No
	Group Behavioural	Diet only	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	Yes	Group	Face to Face	Community	2	2	8	Weekly	1 hour	No
	Individual Behavioural	Diet only	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	Yes	Individual	Face to Face	Community	2	2	8	Weekly	1 hour	Yes
	Social Pressure – Booster	Diet only	Yes	Nutrition Edu.	Psychologist/ Counsellor	Yes	Group	Face to Face	Community	5	2	12	Weekly until week 8. Then at week 10, 13, 17 and 22.	1 hour	No
	Group Behavioural – Booster	Diet only	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	Yes	Group	Face to Face	Community	5	2	12	Weekly until week 8. Then at week 10, 13, 17 and 22.	1 hour	No
	Individual Behaviour – Booster	Diet only	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	Yes	Individual	Face to Face	Community	5	2	12	Weekly until week 8. Then at week 10, 13, 17 and 22.	1 hour	Yes
Knauper 2018	Standard DPP	Diet and exercise	Yes	Nutrition Edu.	Health Trainer	Yes	Group	Face to Face	Community	12	3	22	12 weekly core sessions, 4 transitional sessions over 3 months, and 6 monthly support sessions	1 hour	
	Enhanced DPP	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Health Trainer	Yes	Group	Face to Face; Print	Community	12	3	22	12 weekly core sessions, 4 transitional sessions over 3 months, and 6 monthly support sessions	1 hour	Yes
Kuller 2012	Control - health education	Control	Yes						Community			0			

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Intervention - lifestyle change	Diet and exercise	Yes	Nutrition Edu.	Psychologist/ Counsellor; Nutritionist; Exercise physiologist	No	Group	Face to Face	Community	36	6	64	1-6m: weekly 6-12m: every 2 weeks 12-36m: monthly		Yes
Kumanyika 2012	Basic programme	Diet and exercise	No	Nutrition Edu.; Help following programme end	Nurse (General); Physician; Other AHPs	Yes	Individual	Face to Face; Print	Health Care; Home	12	12	3	PCP every 4 months. 12 printed session in year 1. 2 printed sessions in year 2.	12.5	Yes
	Basic plus programme	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Nurse (General); Physician; Other AHPs; Health Trainer	Yes	Individual	Face to Face; Print	Health Care; Home	12	12	15	PCP every 4 months. LC monthly year 1, every other month year 2. 12 printed session in year 1.	12.5	Yes
Leahey 2014	SURI alone	Diet and exercise	No				Other – internet	Internet; Print		3	3	0			No
	SURI plus Internet behavioral weight loss program	Diet and exercise	No	Nutrition Edu.			Other - internet	Face to Face; Internet; Print	Home	3	3	12	Weekly	10 – 15	No
	SURI plus Internet behavioral weight loss program plus optional group sessions	Diet and exercise	No	Nutrition Edu.	Health Trainer	No	Group	Face to Face; Internet; Print;	Community; Home	3	3	12	Weekly	10 – 15	No
Leahey 2015	SURI1 Internet behavioral weight loss	Diet and exercise	No	Nutrition Edu.		No	Individual and Group	Face to Face; Internet; Print; Video	Health Care	3	3	13	Weekly		Yes
	SURI1 Internet	Diet and exercise	No	Nutrition Edu.; Fin. Incentives		No	Individual and Group	Face to Face;	Health Care	3	3	13	Weekly		Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	behavioral weight loss1incentives							Internet; Print; Video							
	SURI1 Internet behavioral weight loss 1 group option	Diet and exercise	No	Nutrition Edu.	Dietitian; Exercise physiologist	No	Individual and Group	Face to Face; Internet; Print; Video	Health Care	3	3	26	Weekly group sessions; Weekly videos		Yes
Lejeune 2003	Diet	Diet only	Yes	MR-P; MR-F; Nutrition Edu.		Unclear	Unclear	Unclear	Community	13	13				No
	Diet plus exercise	Diet and exercise	Yes	MR-P; MR-F; Nutrition Edu.; Help following programme end	Personal Trainer	Unclear	Unclear	Face to Face; Unclear	Community; Home	13	13	159	4 x per week	Exercise training programme: 4 x 1 hour/week (They trained four times 1 h/week, three times at the laboratory under the supervision of a professional trainer and once at home.)	No
Ley 2004	Control diet	Control	No												
	Reduced-fat	Diet only		Nutrition Edu.				Face to Face		12	12	12			
Li 2016	Usual care group	Control	Yes		Dietitian; Other	Yes		Print	Inpatient	12	1	0			Yes
	Diet group	Diet only	Yes	Help following programme end	Dietitian; Other	Yes	Group	Face to Face; Telephone; Internet; Print	Inpatient	12	1	36	Six weekly sessions (Month 1); Monthly sessions (Months 1 - 12)		Yes
	50g-oats group	Diet only	Yes	Help following programme end	Dietitian; Other	Yes	Group	Face to Face; Telephone; Internet; Print	Inpatient	12	1	36	Six weekly sessions (Month 1); Monthly sessions (Months 1 - 12)		Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	100g-oats group	Diet only	Yes	Help following programme end	Dietitian; Other	Yes	Group	Face to Face; Telephone; Internet; Print	Inpatient	12	1	36	Six weekly sessions (Month 1); Monthly sessions (Months 1 - 12)		Yes
Li 2005	Individualized diet plan	Diet only	Yes	Nutrition Edu.; Help following programme end	Dietitian	Unclear	Individual	Face to Face	Community	12	2	15	Months 1-2: Every 2 weeks; Months 2-12: Monthly		Yes
	Soy-based meal replacement	Diet only	Yes	MR-P; MR-F; Nutrition Edu.; Help following programme end	Dietitian	Unclear	Individual	Face to Face; Other	Community	12	3	15	Months 1-2: Every 2 weeks; Months 2-12: Monthly		Yes
Lindstrom 2003	Control	Control	No	Nutrition Edu.	Nurse (General); Physician; Nutritionist	Unclear	Other - group or individual	Face to Face; Print	Health Care			1		30 mins to 1 hour	No
	Intervention	Diet and exercise	Yes	MR-P; MR-F; Nutrition Edu.; Help following programme end	Nurse (General); Physician; Nutritionist; Physiotherapist	Unclear	Individual and Group	Face to Face; Telephone; Print	Health Care; Community	48	12	19	7 sessions in first year then every 3 months	30 mins to 1 hour	Yes
Liss 2016	Standard care arm	Diet and exercise	No	Nutrition Edu.	Health care professional (not specified); Other	No	Individual	Face to Face; Print	Health Care	12		3	Every 6m	"brief"	Yes
	Standard care plus group-based lifestyle intervention	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Health Trainer	Yes	Individual and Group	Face to Face; Print	Health Care; Community	12	6	39	Weekly for 6m; biweekly for next 6m	3 brief; 60-to-90-minute intervention sessions	Yes
Little 2016	Control, Nurse follow-up	Diet only	No	Nutrition Edu.	Nurse (General)	No	Other	Internet	Home				Data collection only at 6 and 12 months		No
	Web-based support with minimal	Diet and exercise	No	Nutrition Edu.; Help following programme end	Nurse (General)	Unclear	Individual	Telephone; Internet; Other	Home	6	6	29	24 web-based sessions designed to be used over 6		Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	support (Remote)												months. Three scheduled phone or email contacts and up to two optional phone or email contacts in the first 6 months		
	Web-based + nurse support (face to face)	Diet and exercise	No	Nutrition Edu.; Help following programme end	Nurse (General)	Unclear	Individual	Face to Face; Telephone; Internet; Other	Health Care; Home	6	6	31	24 web-based sessions designed to be used over 6 months. Three scheduled face-to-face appointments in the first 3 months, and then up to four more appointments during a further 3 months if needed.		Yes
Long 1983	Individual Dietetic Counselling Group	Diet and exercise	No	Nutrition Edu.	Dietitian	No	Individual	Face to Face	Health Care	4	4	16	Weekly	1 x 45-minute session, 15 x 15 minute sessions	No
	Group Dietetic Counselling Group	Diet and exercise	No	Nutrition Edu.	Dietitian	No	Group	Face to Face	Health Care	4	4	16	Weekly	12 x 1 hour sessions; 4 brief 30 min weigh-ins	No
	Group Dietetic Counselling and behaviour therapy Group	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor; Dietitian	No	Group	Face to Face	Health Care	4	4	16	Weekly	12 x 90 min sessions; 4 x brief 30 min weigh-ins	No
Lowe 2018	Behavior therapy	Diet and exercise		Nutrition Edu.; Help following programme end		No	Group	Face to Face; Telephone		12	12	39	Weekly for 6m, then biweekly for 6m	75	No
	Behavior therapy plus meal replacements	Diet and exercise		MR-P; Nutrition Edu.; Help following programme end		No	Group	Face to Face; Telephone		12	12	39	Weekly for 6 m, then biweekly for 6m	75	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Home food environment	Diet and exercise		Nutrition Edu.; Help following programme end	Other	No	Group	Face to Face; Telephone		12	12	39	Weekly for 6 m, then biweekly for 6m	75	No
Ma 2015	Control, Enhanced usual care	Control	No		Other AHPs	No	Individual	Print	Health Care			0			No
	Diet and counselling	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Dietitian; Other AHPs; Personal Trainer	Yes	Individual and Group	Face to Face; Telephone	Health Care	12	6	18	Intensive stage: 13 weekly small group sessions over 4 months; Transitional stage: 1 individual counselling session in month 5 and another in month 6; Extended stage: 3 bi-monthly or more phone (participants can initiate contact with interventionists at any point and participants with weight gains of 1.4 to 2.2kg will be telephoned on a biweekly basis until they return to a stable, lower weight).	Group sessions 90-120 mins, transitional phase contacts 30-60 mins; extended sessions variable	Yes
Manning 1994	Clinic visit	Diet only	Yes	Nutrition Edu.	Dietitian	No	Individual	Face to Face	Health Care	12	6	7	6 weekly intervals for the first 6 months and then 2 monthly for the remainder of the year.		Yes
	Behavioural	Diet only	Yes	Nutrition Edu.	Psychologist/ Counsellor; Dietitian; Physiotherapist	No	Group	Face to Face	Health Care	12	3	10	Fortnightly intervals initially for 3 months and then at 2 monthly intervals		Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
													for the remainder of the year.		
	Home visits	Diet only	Yes	Nutrition Edu.	Dietitian	No	Individual	Face to Face	Health Care; Home	12	6	7	6 weekly intervals for the first 6 months and then 2 monthly for the remainder of the year.		Yes
	Dexfenfluramine (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Routine usual care (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manzoni 2016	Control, Standard behavioral inpatient program	Diet and exercise	No	Nutrition Edu.	Health care professional (not specified)	Unclear	Individual and Group	Face to Face; Telephone; Internet	Inpatient	1.4	1.4	6	Weekly nutritional groups held by dietitians		Yes
	Cognitive–behavioral therapy	Diet and exercise	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian; Health care professional (not specified)	Yes	Individual and Group	Face to Face; Telephone; Internet	Inpatient	1.4	1.4	21	Weekly and biweekly		Yes
	CBT + Virtual reality	Diet and exercise	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian; Health care professional (not specified)	Yes	Individual and Group	Face to Face; Telephone; Internet; Other	Inpatient	1.4	1.4	36	Weekly and biweekly	60	Yes
Marniemi 1990	Control group	Control	No			No						0			No
	Lactovegetarian weight reduction group	Diet only	No	Nutrition Edu.	Dietitian	No	Group	Face to Face		12	2.5	15	10 weekly for 2.5 months and 5 throughout the year		No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Mixed diet weight reduction	Diet only	No	Nutrition Edu.	Dietitian	No	Group	Face to Face;		12	2.5	15	10 weekly for 2.5 months and 5 throughout the year		No
Martin 2008	Control, Standard Care	Control	No		Physician	Yes						0			Yes
	Tailored physician/life style counselling	Diet and exercise	No	Nutrition Edu.; Help following programme end	Physician	Yes	Individual	Face to Face; Print	Health Care	6	6	6	Monthly	15	Yes
Meffer d 2007	Control	Control	No			Unclear	Unclear								
	Intervention	Diet and exercise	Yes	Nutrition Edu.; Help following programme end		Unclear	Individual and Group	Face to Face; Telephone	Health Care	4	12	78	16 weeks of weekly closed group sessions followed by once-monthly sessions and then monthly sessions for an additional 6 months; Telephone contact: twice weekly during initial two weeks; weekly thereafter		Yes
Melcha rt 2017	Control group	Diet and exercise	No	Nutrition Edu.	GP	No		Face to Face; Print	Health Care						Yes
	Intervention group	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Health Trainer	Yes	Individual and Group	Face to Face; Internet	Health Care	3	12	17	10 weekly; 3 full day 'introduction days' (reduction phase); 4 full day refresh training sessions (maintenance phase)	7 full-day sessions; 10 x 2 hour sessions	Yes
Melin 2003	Control, less intensively treated	Diet and exercise	No	Nutrition Edu.; Help following programme end	Physician; Psychologist/ Counsellor; Dietitian		Group	Face to Face	Health Care	24	24	27	2 x per week during VLCD (2 periods 25 days) + every 3m		No
	Intensively treated	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Physician; Psychologist/		Group	Face to Face	Health Care	12	24	43	2 x per week during VLCD (2 periods 25 days) + every		No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
					Counsellor; Dietitian								fortnight during the first year and 6 meetings during the second year.		
Menard 2005	Control - usual care	Control	No	Nutrition Edu.	Physician			Face to Face	Health Care			6	Every 6m	Health ed materials at 6, 12 and 18 mths, plus 3 phone calls	
	Intervention - intensive multitherapy	Diet and exercise	No	Nutrition Edu.			Individual	Face to Face; Telephone; Print	Health Care; Home	12	12	36	3 x per month	1 session plus at least 2 phone calls per month	Yes
Mengham 1999	Control		No	Nutrition Edu.	Dietitian	Unclear	Unclear	Face to Face	Health Care	12	12	3	Six-monthly	15	Yes
	Intervention		No	Nutrition Edu.; Help following programme end	Dietitian	Unclear	Individual and Group	Face to Face	Health Care	6	12	16	Fortnightly up to 6 months plus 6 monthly sessions	15 mins standard care sessions; Patients in the intervention group typically received input from the dietitian amounting to 3hrs over the twelve months of the study.	Yes
Mensinger 2016	Control, Weight Neutral Program	Diet and exercise	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Personal Trainer		Group	Face to Face; Print; Other	Community	6	6	26	Weekly.	90	
	Weight Loss Program	Diet and exercise	No	Nutrition Edu.; Help following programme end			Group	Face to Face; Print; Other	Community	6	6	26	Weekly	90	
Messier 2013	Exercise only	Exercise only	Yes	Help following programme end	Personal Trainer	Yes	Unclear	Face to Face; Telephone	Community	18	6	78	3 days per week	60	Yes
	Diet-induced weight loss only	Diet only	Yes	MR-P; Nutrition Edu.; Help	Nutritionist	Yes	Individual and Group	Face to Face; Print	Community	18	6	30	1-6 Months: individual session		Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
				following programme end									and 3 group sessions per month; 7-18 Months: biweekly group sessions and an individual session every 2 months		
	Diet-induced weight loss plus exercise	Diet and exercise	Yes	MR-P; Nutrition Edu.; Help following programme end	Nutritionist	Yes	Individual and Group	Face to Face; Telephone; Print	Community	18	6	108	1-6 Months: individual session and 3 group sessions per month; 7-18 Months: biweekly group sessions and an individual session every 2 months plus 3 days/week (exercise)	60 mins exercise; diet group sessions not reported	Yes
Miller 2002	Control Group (Monitoring)	Control	No												
	Lifestyle Intervention	Diet and exercise	No	MR-P; Nutrition Edu.; Help following programme end	Personal Trainer		Group	Face to Face	Health Care; Community	2	2			30 to 45 min for the exercise sessions	No
Mitsui 2008	Control	Control	No			Unclear	Unclear		Health Care			0			No
	Intervention	Diet and exercise	Yes	Nutrition Edu.	Dietitian	Unclear	Individual and Group	Face to Face	Health Care	3	12	25	Weekly: 0-12; Every other week: 13-26; Monthly 26-52 weeks	Exercise training: 40 minutes; Individual counselling sessions: not reported	Yes
Molenaar 2010	Nutritional counselling group (diet D, group)	Diet only	No	Nutrition Edu.	Dietitian	No	Individual	Face to Face	Health Care	12	6	8	7 sessions during the 6 months and 1 follow-up session at 12 months	The initial sessions lasted 40 mins and the rest 20 mins.	Yes
	Nutritional plus exercise counselling	Diet and exercise	No	Nutrition Edu.	Dietitian; Physiotherapist	No	Individual	Face to Face	Health Care	12	6	15	Similar to D group PLUS six exercise counselling sessions	The duration of the diet sessions were identical to	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	group (diet + exercise (D + E) group)												during the first 6 months and a follow-up session at 12 months.	D groups plus exercise sessions: The duration of the initial counselling session was assumed to be 45 to 60 minutes and later sessions 30 minutes.	
Moreno 2014	Low-calorie diet	Diet and exercise	Yes	Nutrition Edu.	Physician; Dietitian; Other	No	Individual and Group	Face to Face; Telephone	Health Care	12	12	9	LC diet. Group meetings took place at 0.5, 2, 4, 6, 8, 10, and 12 months		Yes
	Very low-calorie-ketogenic diet	Diet and exercise	Yes	MR-P; Nutrition Edu.	Physician; Dietitian; Other	No	Other	Face to Face; Telephone	Health Care	12	2	9	VLCK diet up to 2m (45-60 days). Meetings same as LCD group		Yes
Morgan 2010	Control (Information and self-help)	Control	No	Nutrition Edu.	Other	Unclear	Group	Face to Face; Print	Community			1	Once	60	No
	SHED-IT (Internet) group	Diet and exercise	Yes	Nutrition Edu.	Other	Unclear	Individual and Group	Face to Face; Internet; Print	Community; Home	3	3	8	Submit online daily eating and exercise diaries for the first 4 weeks, for 2 weeks in the second month and for 1 week in the third month. 7 x feedback	1st session face to face group- 75 mins. The rest internet. 7 feedback sessions. Submit online daily eating and exercise diaries for the first 4 weeks, for 2 weeks in the second month and for 1 week in the third month. 28 + 14 + 7 = 49	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Muggia 2014	Standard care group	Diet only	No	Nutrition Edu.		No	Individual	Print	Home	12	6	7	Control meetings every 3 months during the first year and every 6 months during the second year	30	No
	Brief CBT group	Diet only	No	Nutrition Edu.		No	Group	Face to Face; Print	Health Care	12	6	14	7 treatment sessions in a monthly basis. Then control meetings every 3 months during the first year and every 6 months during the second year	90	No
Munsch 2003	GP control	Control	No		GP	Yes	Unclear	Face to Face	Health Care						No
	Clinic BASEL	Diet and exercise	No	Nutrition Edu.	Physician; Psychologist/ Counsellor; Dietitian	Yes	Group	Face to Face; Print	Health Care	4	4	16	Weekly	90	No
	GP BASEL	Diet and exercise	No	Nutrition Edu.	Physician; Other	Yes	Group	Face to Face; Print	Health Care	4	4	16	Weekly	90	No
Munsch 2007	Group BWLT	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	Yes	Group	Face to Face	Community	16	4	22	16 weekly sessions; 6 monthly sessions - The last session took place 12 months after the end of active treatment.	90	Yes
	Group CBT	Diet only	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	Yes	Group	Face to Face	Community	16	4	22	16 weekly sessions; 6 monthly sessions - The last session took place 12 months after the end of active treatment.	90	Yes
Murphy 1982	Waiting list (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Supportive	Diet only	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face		24	2.5	19	Weekly and 8 post-treatment sessions (at 2, 5, 8, 12, 19, and 26 weeks, and 1 and 2 years)	1.5 hours	No
	Alone-1 Party	Diet only	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face; Print		24	2.5	19	Weekly and 8 post-treatment sessions (at 2, 5, 8, 12, 19, and 26 weeks, and 1 and 2 years)	1.5 hours	No
	Alone-2 Party	Diet only	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face; Print		24	2.5	19	Weekly and 8 post-treatment sessions (at 2, 5, 8, 12, 19, and 26 weeks, and 1 and 2 years)	1.5 hours	No
	Couple-1 Party	Diet only	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face; Print		24	2.5	19	Weekly and 8 post-treatment sessions (at 2, 5, 8, 12, 19, and 26 weeks, and 1 and 2 years)	1.5 hours	No
	Couple-2 Party	Diet only	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face; Print		42	2.5	19	Weekly and 8 post-treatment sessions (at 2, 5, 8, 12, 19, and 26 weeks, and 1 and 2 years)	1.5 hours	No
Nakata 2014	Control (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Education-only	Diet and exercise	No	Nutrition Edu.	Other	No	Group	Face to Face; Print	Health Care	6	6	1		2 hours	No
	Group-based support	Diet and exercise	Yes	Nutrition Edu.	Other	Yes	Group	Face to Face; Print	Health Care	6	6	8	Fortnightly (Weeks 1-6); Monthly (Weeks 6 - 22)	2 hours	No
Nanchahal 2012	Usual care control			Nutrition Edu.	GP	Yes	Individual	Face to Face; Print	Health Care						Yes
	CAMWEL Intervention	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Health Trainer	Yes	Individual	Face to Face; Print	Health Care	6	12	14	Fortnightly for 12 weeks, 3-weekly to 27 weeks, 4-weekly to 35 weeks and a	30	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
													12-week interval to the last session		
Ng 2015	Control group	Control	No	Nutrition Edu.	Physician	No	Individual	Face to Face	Health Care	6		2	Single sessions at baseline and at 6 months		
	Lifestyle modification program	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Dietitian	No	Individual	Face to Face	Health Care	12	4	24	Weekly (Months 1-4); Monthly (Months 5-12)	Encouraged to see an exercise instructor at least once during the program and perform 30 min of aerobic exercise two to three times a week.	
Nicklas 2004	Healthy lifestyle control	Diet and exercise	No	Nutrition Edu.; Help following programme end		Unclear	Group	Face to Face; Telephone	Community	18	6	12	Months 1-3: Monthly; Month 4-6: Monthly phone contact; Months 7-18 bimonthly	1 hour	No
	Exercise only	Exercise only	Yes	Nutrition Edu.; Help following programme end	Exercise physiologist	Yes	Unclear	Telephone; Print	Community	18	6	234	3 days per week	1 hour	Yes
	Diet only	Diet only	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian	Yes	Individual and Group	Face to Face; Telephone; Print	Community	18	6	59	Months 1-4: Weekly; Months 4-6: Biweekly; Months 6-18: Monthly meetings and phone contacts every 2 weeks.		Yes
	Diet plus exercise	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian; Exercise physiologist	Yes	Individual and Group	Face to Face; Telephone; Print	Community	18	6	293	Diet component (Months 1-4: Weekly; Months 4-6: Biweekly; Months 6-18: Monthly meetings and phone contacts every 2 weeks.); Exercise	Exercise component: 1 hour	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
													component: 3 days per week		
Nicklas 2009	Calorie restriction (CR) Only	Diet only	No	MR-P; Nutrition Edu.; Help following programme end	Dietitian;	Unclear	Individual	Face to Face; Other	Community	4.6	17	1			Yes
	CR + Moderate-Intensity	Diet and exercise	No	MR-P; Nutrition Edu.; Help following programme end	Dietitian; Exercise physiologist	Unclear	Unclear	Face to Face; Other	Community	4.6	17	60	3 sessions per week	20–25 min the first week to 55 min by the end of the sixth week and thereafter.	Yes
	CR + Vigorous-Intensity	Diet and exercise	No	MR-P; Nutrition Edu.; Help following programme end	Dietitian; Exercise physiologist	Unclear	Unclear	Face to Face; Other	Community	4.6	17	60	3 sessions per week	10–15 min the first week to 30 min by the end of the sixth week and thereafter	Yes
Nilsen 2011	Control, Individual Physician Group	Diet and exercise	No	Nutrition Edu.	Physician		Individual	Face to Face	Health Care	18	18	3	6 monthly		
	Individual Plus Interdisciplinary Group	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Nurse (General); Physician; Dietitian; Physiotherapist; Other		Individual and Group	Face to Face	Health Care; Community	18	6	11	Weekly (Weeks 5 to 10. Other sessions at week 3, 16, 20, 26 52 and 78	7 sessions of 5 hours; 1 x individual session 30 mins; 3 x physician consultation (30 mins? [3 x exercise test]	Yes
Nordby 2012	Control	Control	No			Unclear			Community			0			No
	Training and increased diet (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Training	Exercise only	No			Unclear	Unclear	Face to Face; Print	Community	3	3	12	Weekly	3–4 sessions/week of continuous exercise at moderate intensity; d 3–4 sessions/week of	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														continuous exercise with intermittent high intensity training intervals; weekly contact with a supervisor; extra supervision incorporated when required	
	Energy-reduced diet	Diet only	No	Nutrition Edu.		Unclear	Unclear	Face to Face	Community	3	3	12	Weekly	Weekly contact with a supervisor; extra supervision incorporated when required.	
Nurkkala 2015	Control	Diet and exercise	No	Nutrition Edu.	Nurse (General)	Unclear	Individual	Face to Face; Print	Health Care	0		1	Single session		Yes
	Intervention group	Diet and exercise	No	Nutrition Edu.; Help following programme end	Nurse (General); Nutritionist	Unclear	Individual	Face to Face	Health Care	36	9	20	14 (Year 1); 4 (Year 2); 2 (Year 3)		Yes
Oldroyd 2006	Control group	Control	No												
	Intervention group	Diet and exercise	No	Nutrition Edu.	Dietitian; Physiotherapist	No	Individual	Face to Face; Print	Community	24	6	12	In the first 6 months there were three such appointments at two weekly intervals, followed by three at monthly intervals. There was one after 9 months and five at two monthly intervals between 12 and 24 months.	15 – 20	Yes
Pan 1997	Control	Control	No	Nutrition Edu.	Physician	Unclear	Unclear	Print	Health Care						No
	Intervention group (Exercise:		Yes	Nutrition Edu.	Physician	Unclear	Individual and Group	Face to Face; Print	Health Care	72	72	30 - 60	Frequency of group dietary counselling and exercise		Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	n=155; Diet: n = 148; Diet plus exercise: n = 135)												sessions: weekly for 1 month, monthly for 3 months, and then once every 3 months for the remainder of the study.		
Parikh 2010	Control	Control					Unclear		Health Care						
	Intervention	Diet and exercise	No	Nutrition Edu.		Yes	Group	Face to Face; Print	Community	3	3	8	8 sessions over 10 weeks	1.5 hours	No
Patel 2016	Control group	Control	No		Other	No	Unclear	Internet	Workplace						Yes
	Standard premium discount		No	Fin. Incentives	Other	No	Unclear	Internet	Workplace	6	6				Yes
	Immediate premium discount		No	Fin. Incentives	Other	No	Unclear	Internet	Workplace	6	6				Yes
	Daily lottery incentive		No	Fin. Incentives	Other	No	Unclear	Internet	Workplace	12	12				Yes
Pavlou 1989a	Balanced caloric-deficit diet plus supervised exercise	Diet and exercise	No	Nutrition Edu.		No	Group	Face to Face		3	3	48	Educational sessions: once per week, exercise sessions: 3 times per week	90 min supervised exercise program	No
	Balanced caloric-deficit diet - No exercise	Diet only	No	Nutrition Edu.		No	Group	Face to Face		3	3	12	Weekly		No
	Protein-sparing modified fast plus supervised exercise	Diet and exercise	No	Nutrition Edu.		No	Group	Face to Face		3	3	48	Educational sessions: once per week, exercise sessions: 3 times per week	90 min supervised exercise program	No
	Protein-sparing modified fast - no exercise	Diet only	No	Nutrition Edu.		No	Group	Face to Face		3	3	12	Weekly		No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Pavlou 1989b	Balanced caloric-deficit diet - No exercise	Diet only	No	Nutrition Edu.			Group	Face to Face		3	3	12	Weekly		
	Balanced caloric-deficit diet plus supervised exercise	Diet and exercise	No	Nutrition Edu.			Group	Face to Face		3	3	48	Educational sessions: once per week, exercise sessions: 3 times per week	90 min supervised exercise program; Not reported for diet	
	Protein-sparing modified fast - no exercise	Diet only	No	Nutrition Edu.			Group	Face to Face;		3	3	12	Weekly		
	Protein-sparing modified fast plus supervised exercise	Diet and exercise	No	Nutrition Edu.			Group	Face to Face		3	3	48	Educational sessions: once per week, exercise sessions: 3 times per week	90 min supervised exercise program; Not reported for diet	
	DPC-70 - no exercise	Diet only	No	MR-F; Nutrition Edu.			Group	Face to Face		3	3	12	Weekly		
	DPC-70 - plus supervised exercise	Diet and exercise	No	MR-F; Nutrition Edu.			Group	Face to Face		3	3	48	Educational sessions: once per week, exercise sessions: 3 times per week	90 min supervised exercise program; Not reported for diet	
	DPC 800 - no exercise	Diet only	No	MR-F; Nutrition Edu.			Group	Face to Face		3	3	12	Weekly		
	DPC 800 plus supervised exercise	Diet and exercise	No	MR-F; Nutrition Edu.			Group	Face to Face		3	3	48	Educational sessions: once per week, exercise sessions: 3 times per week	90 min supervised exercise program; Not reported for diet	
Pearce 1981	Alternative treatment	Diet only	No	Nutrition Edu.; Fin. Incentives	Psychologist/ Counsellor	Yes	Unclear	Face to Face	Community	2.3	14.3	10	Weekly	Approx. 60 mins	
	Wives alone	Diet and exercise	No	Nutrition Edu.; Fin. Incentives	Psychologist/ Counsellor	Yes	Unclear	Face to Face;	Community	2.3	14.3	10	Weekly	Approx. 60 mins	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Pedersen 2013	Aerobic interval training	Exercise only	Yes	Nutrition Edu.; Help following programme end	Physiotherapist	Unclear	Group	Face to Face	Community	12	3	116	Three times a week for 12 weeks; twice weekly for 40 weeks.	38	
	Low energy diet	Diet and exercise	Yes	MR-P; Nutrition Edu.; Help following programme end	Dietitian	Unclear	Individual and Group	Face to Face	Community	12	3	96	Fortnightly dietitian sessions (Weeks 1-12); Monthly (Weeks 12 – 52); Twice weekly exercise sessions for 40 weeks.	Exercise sessions: 38 mins; Dietitian sessions not reported	
Pekkarinen 2015	Control, Follow up without intervention	Diet and exercise	No	MR-F; Nutrition Edu.; Help following programme end	Nurse (General); Nutritionist; Other	Yes	Group	Face to Face; Print	Health Care	4	4	17	Weekly	1.5 hours	
	One-year maintenance program	Diet and exercise	Yes	MR-F; Nutrition Edu.; Help following programme end	Nurse (General); Nutritionist; Other	Yes	Group	Face to Face; Print	Health Care	16	4	29	Weekly and the monthly.	1.5 hours	
Perri 1984	Non-behavioural therapy	Control	No	Nutrition Edu.	Psychologist/ Counsellor	No	Group	Face to Face	Community	3	3	18	15 weekly and 3 post-treatment fu	2 hours	No
	Non-behavior therapy plus post-treatment contact	Diet only	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face; Telephone; Print	Community	9	3	18	15 weekly and 3 post-treatment fu PLUS 5-10min phone calls up to 9 months	2 hours	No
	Behavior therapy	Diet only	No	Nutrition Edu.	Psychologist/ Counsellor	No	Group	Face to Face	Community	3	3	18	15 weekly and 3 post-treatment fu	2 hours	No
	Behavior therapy plus relapse prevention training	Diet only	No	Nutrition Edu.	Psychologist/ Counsellor	No	Group	Face to Face; Telephone	Community	3	3	18	15 weekly and 3 post-treatment fu	2 hours	No
	Behavior therapy plus post-	Diet only	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face; Telephone; Print	Community	9	3	18	15 weekly and 3 post-treatment fu PLUS 5-10min	2 hours	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	treatment contact												phone calls up to 9 months		
	Behavior therapy plus relapse prevention training plus post-treatment contact	Diet only	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face; Telephone; Print	Community	9	3	18	15 weekly and 3 post-treatment fu PLUS 5-10min phone calls up to 9 months	2 hours	No
Perri 1986	Behavior therapy	Diet and exercise	No	Nutrition Edu.; Fin. Incentives	Psychologist/ Counsellor	Yes	Group	Face to Face; Print	Community	4.6	4.6	20	Weeks 1-20: Weekly	Group therapy sessions: 2 hours	No
	Behavior therapy plus maintenance	Diet and exercise	Yes	Nutrition Edu.; Fin. Incentives; Help following programme end	Nurse (General); Psychologist/ Counsellor	Yes	Individual and Group	Face to Face; Telephone; Print	Community	16.6	16.6	98	Weekly	Group therapy sessions: 2 hours Client-therapist telephone contacts were scheduled to occur weekly during the 12 months following treatment. Buddy groups were encouraged to meet twice a month during the year following treatment.	Yes
	Behavior therapy plus aerobic exercise	Diet and exercise	No	Nutrition Edu.; Fin. Incentives	Nurse (General); Psychologist/ Counsellor	Yes	Group	Face to Face Print	Community	4.6	4.6	32	Weeks 1-20: Weekly; Exercise program: weekly	Group therapy sessions: 2 hours Exercise program goals: Initial levels of exercise were set at a minimum of 32 min per week (8 min per day of stationary cycling, 4 days per week). Weekly increases	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														of 4 rain were scheduled over 12 consecutive weeks to a target level of 80 min per week (20 rain per day, 4 days per week).	
	Behavior therapy behavior therapy plus aerobic exercise plus maintenance	Diet and exercise	Yes	Nutrition Edu.; Fin. Incentives; Help following programme end	Nurse (General); Psychologist/ Counsellor	Yes	Individual and Group	Face to Face; Telephone; Print	Community	16.6	16.6	110	Weekly	Group therapy sessions: 2 hours Exercise program goals: Initial levels of exercise were set at a minimum of 32 min per week (8 min per day of stationary cycling, 4 days per week). Weekly increases of 4 rain were scheduled over 12 consecutive weeks to a target level of 80 min per week (20 rain per day, 4 days per week).	Yes
Perri 1987	Behavior therapy only	Diet and exercise	No	Nutrition Edu.	Nurse (General); Physician; Psychologist/ Counsellor	Unclear	Group	Face to Face	Community	4.6		20			No
	Behavior therapy plus a peer self-help group maintenance program	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Nurse (General); Physician; Psychologist/ Counsellor	Unclear	Group	Face to Face	Community	7	7	35	20 weekly; 15 biweekly		No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Behavior therapy plus a therapist-contact maintenance program	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Nurse (General); Physician; Psychologist/ Counsellor	Unclear	Group	Face to Face	Community	7	7	35	20 weekly; 15 biweekly		Yes
Perri 1989	Standard treatment group	Diet and exercise	No		Psychologist/ Counsellor	No	Group	Face to Face	Community	5	5	20	Weekly		No
	Extended treatment regimen	Diet and exercise	No		Psychologist/ Counsellor	No	Group	Face to Face	Community	10	10	40	Weekly		No
Perri 1997	WL + Home-based exercise	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	Yes	Group	Face to Face; Print	Community	12	12	39	WL sessions (26 weekly, 13 biweekly)	2-hour WL sessions. 30 min of exercise on 5 days per week	No
	WL + Group-based exercise	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Health Trainer	Yes	Group	Face to Face	Community	12	12	169	WL sessions (26 weekly, 13 biweekly); Exercise sessions: 3 x weekly (0-26 weeks); 2 x weekly sessions (27 -52 week)	2-hour WL sessions; 30 min of exercise on 5 days per week	No
Perri 2001	Control, Standard Behavioural Therapy (BT)	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor		Group	Face to Face	Community	5	5	20	Weekly	2 hours	
	BT + Relapse prevention training	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor		Group	Face to Face; Print	Community	17	5	46	Weekly and biweekly	2 hours	Yes
	BT + problem-solving therapy	Diet and exercise	Yes	Help following programme end	Psychologist/ Counsellor		Group	Face to Face; Print	Community	17	5	46	Weekly and biweekly	2 hours	Yes
Perri 2014	Control, Education group	Diet and exercise		Nutrition Edu.	Other	Yes	Group	Face to Face; Telephone	Community; Home	24	6	21	Weekly		No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Low dose, (low intensity lifestyle counselling)	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Other	Yes	Individual and Group	Face to Face; Telephone	Community; Home	24	6	21	Weekly		Yes
	Moderate dose, (Moderate intensity lifestyle counselling)	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Other	Yes	Individual and Group	Face to Face; Telephone	Community; Home	24	6	42	Weekly		Yes
	High dose, (High intensity lifestyle counselling)	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Other	Yes	Individual and Group	Face to Face; Telephone	Community; Home	24	6	63	Weekly		Yes
Pettman 2009	Control	Control	No	Nutrition Edu.		No	Individual	Print							No
	Intervention B - Passive follow-up	Diet and exercise	No	Nutrition Edu.	Health Trainer	Unclear	Group	Face to Face; Telephone; Other	Community	4	12	32	Weekly group session and exercise session	2 hour group sessions: 1 hour exercise session.	No
	Intervention A - Active follow-up	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Health Trainer	Unclear	Group	Face to Face; Telephone; Other	Community	4	12	40	Weekly group session and exercise session	2 hour group sessions; 1 hour exercise session.	No
Poelman 2015	Control Condition	Control	No									0			No
	Intervention condition	Diet only	No	Nutrition Edu.	Dietitian; Health care professional (not specified)	No	Individual and Group	Face to Face; Internet	Community	12	3	3	Biweekly	3 hour cooking class, 8-minute video	No
Promrat 2010	Control	Diet and exercise	No	Nutrition Edu.	Nutritionist; Health Trainer	Unclear	Group	Face to Face	Health Care	12	12	4	Once every 12 weeks.		
	Lifestyle Intervention	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Nutritionist; Health Trainer	Unclear	Individual and Group	Face to Face	Health Care	12	6	36	Months 1-6: weekly; Months 7-12: biweekly		Yes
	Control group	Control	No												

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Provencher 2009	Social support	Diet only	No	Nutrition Edu.	Psychologist/ Counsellor; Dietitian	Yes	Group	Face to Face	Community	4	4	14	Weekly	2 hours	Yes
	Health-At-Every-Size	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor; Dietitian	Yes	Group	Face to Face; Print	Community	4	4	14	Weekly	"13 three-hour evening sessions and 1 intensive-day session of 6 hours)."	Yes
Ptomey 2018	Conventional Diet	Diet and exercise	Yes	Nutrition Edu.; Fin. Incentives	Health Trainer; Other	Yes	Individual	Face to Face	Home	18	6	20	Monthly. Plus baseline and at 2 weeks	Baseline 60-90 mins; 2 weeks: 30mins; Monthly sessions: 45 mins	Yes
	Enhanced Stop Light Diet	Diet and exercise	Yes	MR-P; Nutrition Edu.; Fin. Incentives;	Health Trainer; Other	Yes	Individual	Face to Face	Home	18	6	20	Monthly. Plus baseline and at 2 weeks	4Baseline 60-90 mins. 2 weeks 30mins. Monthly sessions 45 mins	
Ramirez 2001	Weight control only	Diet and exercise	No	Nutrition Edu.		No	Group	Face to Face	Community	4	4	16	Weekly	1 hour	No
	Weight control plus body image therapy	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor; Dietitian	No	Group	Face to Face; Other	Community; Home	4	4	16	Weekly	2 hours with the psychologist or predoctoral psychology graduate student, and 1 hour with the dietitian; 12 weeks with 2 hour sessions and 4 weeks with 1 hour sessions.	No
Rejeski 2011	Successful aging control arm	Control				No						18			No
	Physical activity	Exercise only	Yes	Help following programme end	Health Trainer	Unclear	Individual and Group	Face to Face; Telephone	Community; Home	18	6	48		Group sessions lasted 90 mins, and individual sessions lasted 30 mins. Phone session and the	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														last group session lasted 10-20 mins.	
	Weight loss and physical activity	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Dietitian; Health Trainer	Unclear	Individual and Group	Face to Face; Telephone	Community; Home	18	6	48			Yes
Ridgeway 1999	Control	Control	No			No									No
	Intervention Group	Diet and exercise	No	Nutrition Edu.	Nurse (General); Dietitian	Unclear	Individual and Group	Face to Face; Print	Health Care	12	6	7	Monthly; Plus single follow-up session at 12 months	90 minutes group sessions	Yes
Rock 2015	Control	Diet and exercise	Yes	Nutrition Edu.	Other	Unclear	Individual	Face to Face; Telephone; Internet	Community	6	12	14	2 individual sessions (baseline and 6 months); monthly telephone calls and/or e-mails		Yes
	Intervention	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Other	Unclear	Individual and Group	Face to Face; Telephone; Internet	Community	6	12	73	Group sessions: weekly for 4 months; biweekly for two months; monthly for 6 months; Newsletters: quarterly from 6 to 24 months.	1 hour group sessions; Group sessions were reinforced by brief (10- to 15-minute) personalized guidance delivered by telephone and/or e-mail.	Yes
Rolls 2005	Comparison-control	Control	No			No									
	Two snacks	Diet and exercise	No	MR-P; Nutrition Edu.; Help following programme end	Dietitian	No	Individual	Face to Face		12	6	24	Weekly from 1 to 3 months, fortnightly 4 to 6 months, and monthly from 7 to 12 months	15 – 30	No
	One soup	Diet and exercise	No	MR-P; Nutrition Edu.; Help following programme end	Dietitian	No	Individual	Face to Face		12	6	24	Weekly from 1 to 3 months, fortnightly 4 to 6 months, and monthly from 7 to 12 months	15 – 30	No
	Two soups	Diet and exercise	No	MR-P; Nutrition Edu.; Help	Dietitian	No	Individual	Face to Face		12	6	24	Weekly from 1 to 3 months, fortnightly	15 - 30	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
				following programme end									4 to 6 months, and monthly from 7 to 12 months		
Rolls 2017	Standard advice	Diet and exercise	Yes	Nutrition Edu.	Dietitian; Other	Yes	Individual	Face to Face; Print	Community	12	1	19	Weekly in month 1 and biweekly in months 2–6, and 1-hour sessions were scheduled monthly in months 7–12	Thirty-min weekly and biweekly sessions; 1-hour monthly sessions.	Yes
	Pre-portioned foods group	Diet and exercise	Yes	MR-P; Nutrition Edu.; Help following programme end	Dietitian; Other	Yes	Individual	Face to Face; Print	Community	12	1	19	Weekly in month 1 and biweekly in months 2–6, and 1-hour sessions were scheduled monthly in months 7–12	Thirty-min weekly and biweekly sessions; 1-hour monthly sessions.	Yes
	Portion selection group	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Dietitian; Other	Yes	Individual	Face to Face; Print	Community	12	1	19	Weekly in month 1 and biweekly in months 2–6, and 1-hour sessions were scheduled monthly in months 7–12	Thirty-min weekly and biweekly sessions; 1-hour monthly sessions.	Yes
Rosas 2015	Usual care		No		GP	No	Individual	Face to Face	Health Care						No
	Case-management intervention		Yes	Nutrition Edu.; Help following programme end	Health Trainer	No	Individual and Group	Face to Face	Health Care	24	6	20	16 sessions from 0-12 months. 4 sessions from 12-24 months.	Group sessions last 2 hours, individual sessions last 30 minutes.	Yes
	Case-management + Community health worker intervention		Yes	Nutrition Edu.; Help following programme end	Health Trainer	No	Individual and Group	Face to Face	Health Care; Community; Home	24	6	27	Same as CM group, with additional 5 home visits from 0-12 months and 2 home visits from 12-24 months.	Same as CM group. The length of the additional CHW home visits is not clear.	Yes
Ross 2012	Control condition	Control	No	Nutrition Edu.	Physician	No	Unclear	Face to Face	Health Care				Usual schedule (typically once a year).		Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Behavioral intervention group	Diet and exercise	No	Nutrition Edu.; Help following programme end	Health Trainer	Yes	Individual and Group	Face to Face		24	6	33	First 6m: 8 sessions in first 6 weeks, then every 2 weeks. Months 7-24, monthly sessions.	(0–6 months, 15 sessions, 15 hours); Months 7–12 (6 sessions, 3–6 hours); Months 13–24 (12 sessions, 6–12 hours)	Yes
Samaras 1997	Control	Control	No												
	Intervention	Exercise only	No	Help following programme end	Nurse (General); Physician; Dietitian; Exercise physiologist; Other	Yes	Group	Face to Face; Print; Video	Community	6	6	6	Monthly	1 hour	Yes
Santanasto 2011	Physical Activity plus Successful Ageing	Diet only	Yes	Nutrition Edu.; Help following programme end		Unclear	Individual and Group	Face to Face	Community; Home	12	6	68.	Monthly SA session; Exercise sessions: 3 x sessions/week (Weeks 1 – 8); two sessions/week (weeks 9–24); optional exercise session at the center once per week (weeks 25–52)	60 min exercise sessions	No
	Physical Activity plus Weight Loss	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Nutritionist	Unclear	Individual and Group	Face to Face	Community; Home	12	6	87	Nutrition sessions: 24 weekly, 2 bimonthly, and 5 monthly; Exercise sessions: 3 x sessions/week (Weeks 1 – 8); two sessions/week (weeks 9–24); optional exercise session at the center once per week (weeks 25–52)	60 minutes exercise sessions	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Sattin 2016	Health Education intervention	Control	No	Nutrition Edu.	Health care professional (not specified)	Yes	Group	Face to Face	Community	9	3	18	Weekly for the first 12 weeks and monthly for the remaining 6m		Yes
	Fit body and soul intervention	Diet and exercise	No	Nutrition Edu.; Help following programme end	Health care professional (not specified)	Yes	Group	Face to Face	Community	9	3	18	Weekly for the first 12 weeks and monthly for the remaining 6m		Yes
Schubel 2016	Control group	Control	Yes	Nutrition Edu.	Dietitian; Nutritionist	Yes	Individual	Face to Face; Telephone	Community	11.5	3	8	Biweekly phone calls (Week 1-12); Two single sessions at the beginning and end of the Intervention phase	"The number of personal contacts and counseling sessions was the same for all study participants overall, but individuals in the ICR and CCR arms received longer and more comprehensive counseling sessions with personalized dietary plans, specific for the ICR or CCR regimens."	No
	Continuous Calorie Restriction	Diet only	Yes	Nutrition Edu.; Help following programme end	Dietitian; Nutritionist	Yes	Individual	Face to Face; Telephone; Print	Community	11.5	3	8	Biweekly phone calls (Week 1-12); Two single sessions at the beginning and end of the Intervention phase	"The number of personal contacts and counseling sessions was the same for all study participants overall, but individuals in the ICR and CCR arms received longer and more comprehensive	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														counseling sessions with personalized dietary plans, specific for the ICR or CCR regimens."	
	Intermittent Calorie Restriction	Diet only	Yes	Nutrition Edu.; Inter. Fasting; Help following programme end	Dietitian; Nutritionist	Yes	Individual	Face to Face; Telephone; Print	Community	11.5	3	8	Biweekly phone calls (Week 1-12); Two single sessions at the beginning and end of the Intervention phase	"The number of personal contacts and counseling sessions was the same for all study participants overall, but individuals in the ICR and CCR arms received longer and more comprehensive counseling sessions with personalized dietary plans, specific for the ICR or CCR regimens."	Yes
Seligman 2011	Standard-of-care strategy	Diet only		Nutrition Edu.		Unclear	Individual	Print		3	3				Yes
	Healthy diet and step counter	Diet and exercise		Nutrition Edu.		Unclear	Individual	Face to Face; Print		3	3	2			No
	Healthy diet and fitness	Diet and exercise		Nutrition Edu.		Unclear	Individual	Face to Face; Print		3	3	2			Yes
Shikany 2013	Food-based diet	Diet only	Yes	Nutrition Edu.		No	Individual	Face to Face; Telephone; Internet; Print	Health Care; Home	12	6	10	Fortnightly until week 4, monthly until week 20, then six weeks, followed by one fortnight, followed by one		Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
													month to week 32, two months to week 40 and then six weekly until week 52.		
	Meal replacement	Diet only	Yes	MR-P; Nutrition Edu.	Dietitian; Health Trainer	No	Individual	Face to Face; Telephone; Internet	Health Care; Home	12	6	10	Fortnightly until week 4, monthly until week 20, then six weeks, followed by one fortnight, followed by one month to week 32, two months to week 40 and then six weekly until week 52.		Yes
Sikand 1988	No exercisers	Diet only	No	MR-F; Nutrition Edu.		Unclear	Individual and Group	Face to Face	Health Care	4	4	16	Weekly VLCD program		No
	Exercisers	Diet and exercise	No	MR-F; Nutrition Edu.		Unclear	Individual and Group	Face to Face	Health Care	4	4	32	Exercise program: 2 x per week; VLCD program: weekly		No
Silva 2010	Comparison group		No	Nutrition Edu.	Psychologist/ Counsellor; Dietitian; Nutritionist; Exercise physiologist	Unclear	Group	Face to Face	Community	12	12	29			
	Intervention	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian; Nutritionist; Exercise physiologist	Unclear	Group	Face to Face; Print	Community	12	12	30	Weekly or twice a month	120	
Snel 2012	VLCD only	Diet only	No	MR-F; Nutrition Edu.		Unclear	Unclear	Face to Face	Health Care	4	4				No
	VLCD + exercise	Diet and exercise	No	MR-F; Nutrition Edu.	Physiotherapist	Unclear	Unclear	Face to Face	Health Care; Home	4	4	16	Weekly at minimum	One-hour supervised	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														exercise sessions plus at least 4 home training sessions	
Solbrig 2019	Motivational interviewing	Diet and exercise	Yes		Psychologist/ Counsellor	No	Individual	Face to Face; Telephone; Print	Community	6	6	13	2 sessions after baseline assessment and fortnightly calls up to 6 months	Session 1: 1 hour Session 2: 35min phone calls: 5–15 min	Yes
	Functional imagery training	Diet and exercise	Yes		Psychologist/ Counsellor	No	Individual	Face to Face; Telephone; App	Community	6	6	13	2 sessions after baseline assessment and fortnightly calls up to 6 months	Session 1: 1 hour Session 2: 35min phone calls: 5–15 min	Yes
Somers 2012	Standard Care	Control	No			No	Unclear	Unclear	Health Care						
	Lifestyle behavioral weight management intervention only	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Exercise physiologist	Yes	Group	Face to Face; Telephone; Unclear	Community	12	6	21	Group sessions (12 weekly, 12 biweekly); 3 exercise sessions in 12 weeks; 6 monthly maintenance calls	Group sessions (60 minutes); Exercise sessions (90 minutes); Maintenance calls (20 minutes)	Yes
	Lifestyle behavioral weight management intervention + Pain Coping Skills Training	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Exercise physiologist	Yes	Group	Face to Face; Telephone; Unclear	Community	12	6	21	Group sessions (12 weekly, 12 biweekly); 3 exercise sessions in 12 weeks; 6 monthly maintenance calls	Group sessions (120 mins); Exercise sessions (90 mins); Maintenance calls (20 mins)	Yes
	Pain Coping Skills Training only (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Spring 2013	MOVE standard care	Diet and exercise	Yes	Nutrition Edu.	Physician; Psychologist/ Counsellor; Dietitian; Other AHPs	Unclear	Group	Face to Face	Community	12	6	19	Biweekly	1.5 hours	Yes
	MOVE + personal	Diet and exercise	Yes	Nutrition Edu.	Physician; Psychologist/	Unclear	Individual and Group	Face to Face;	Community; Home	12	6	32	Biweekly	1.5 hours	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	digital assistant				Counsellor; Dietitian			Telephone; Other							
Spring 2017	Control self-guided program	Diet and exercise	Yes	Nutrition Edu.; Fin. Incentives;		Unclear	Group	Face to Face; Print; Video	Community; Home	6	6	1	Single session	60	No
	Standard weight loss program	Diet and exercise	Yes	Nutrition Edu.; Fin. Incentives	Psychologist/ Counsellor; Exercise physiologist	Unclear	Individual and Group	Face to Face; Telephone; Print	Community	6	6	19	Weekly group sessions and calls (Months 1-2); Monthly calls (Months 3-6)	Group session (90 mins); Guided walking exercise (30 mins); Telephone calls (10-15 mins)	Yes
	Technology-supported	Diet and exercise	Yes	Nutrition Edu.; Fin. Incentives	Psychologist/ Counsellor; Exercise physiologist	Unclear	Individual and Group	Face to Face; Telephone; Internet; App; Print; SMS	Community; Home	6	6	19	Weekly group sessions and calls (Months 1-2); Monthly calls (Months 3-6)	Group session (90 mins); Guided walking exercise (30 mins); Telephone calls (10-15 mins)	Yes
Stahre 2005	Control	Control	No												
	Cognitive treatment	Diet only	No	Nutrition Edu.			Group	Face to Face	Health Care	2.3	6	10	Weekly	3 hours	Yes
Stahre 2007	Control Group (weight-reducing program	Diet and exercise	No	Nutrition Edu.	Nurse (General); Physician; Physiotherapist; Other	No	Group	Face to Face	Community	2.3	2.3	10	Weekly	2 hours	No
	Cognitive treatment group	Diet only	No	Nutrition Edu.	Other AHPs	Unclear	Group	Face to Face	Community	2.3	2.3	10	Weekly	2 hours	No
Stalonas 1978	Basic weight loss program	Diet only	No	Nutrition Edu.	Other	Unclear	Individual and Group	Face to Face	Community	2.3	2.3	10	Weekly	1 hour	Yes
	WL program plus contingency component	Diet only	No	Nutrition Edu.	Other	Unclear	Individual and Group	Face to Face	Community	2.3	2.3	10	Weekly	1 hour	Yes
	WL program plus exercise and	Diet and exercise	No	Nutrition Edu.	Other	Unclear	Individual and Group	Face to Face; Print	Community	2.3	2.3	10	Weekly	1 hour	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	contingency components														
	WL program plus exercise component	Diet and exercise	No	Nutrition Edu.	Other	Unclear	Individual and Group	Face to Face; Print	Community	2.3	2.3	10	Weekly	1 hour	Yes
Stenius - Aamial a 2000	Control	Diet only	No	Nutrition Edu.		No	Group	Face to Face	Health Care	3.2	3.2	12	Weekly	30	
	Treatment with VLCD	Diet only	No	MR-F; Nutrition Edu.		Yes	Group	Face to Face	Health Care; Home	3.2	3.2	12	Weekly sessions for 14 weeks, 8 weeks VLCD		
Stevens 1993	Control	Control	No			No				0	0	0			No
	Intervention	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian; Exercise physiologist	Unclear	Individual and Group	Face to Face; Telephone; Internet; Print	Community	18	3	54		90 minutes group, individual length not reported. 'The intervention started with an individual counseling session, followed by 14 weekly group meetings led by dietitians or health educators. After this 14-week intensive phase, participants attended six biweekly group meetings and then monthly group meetings. Beginning in the 18th month, participants were offered a variety of options to keep them involved in the intervention,	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														including individual counseling sessions and special group sessions focused on selected weight loss topics.'	
Stevens 2001	Control	Control	No			Unclear						0			
	Intervention	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Dietitian; Health Trainer	Unclear	Individual and Group	Face to Face; Telephone; Print; Other	Community	36	6	51	Intensive phase (0-6 Months): 1 individual, 14 weekly, 6 biweekly sessions. Extended phase (7-36 Months): biweekly contacts with monthly face-to-face meetings until the intensive intervention is completed for the first cohort then mini-modules to be offered with continued biweekly contact. Specifically tailored follow-up where indicated.	90 mins in first phase	Yes
	Sodium only intervention (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Combined intervention (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Stolley 2017	Moving Forward Self-Guided program	Diet and exercise	No	Nutrition Edu.; Help following programme end	Other	No	Unclear	Face to Face; Telephone; Print	Community	12	6	6	Single session plus monthly phone calls and monthly newsletters after 6m		No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Moving Forward Interventionist-Guided program	Diet and exercise	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian; Nutritionist; Personal Trainer	Yes	Group	Face to Face; Telephone; Print; SMS	Community	12	6	52	Twice-weekly in-person classes; Twice-weekly text messaging; Monthly newsletters for 6m	Class 1 (90 mins) plus 45-60 mins exercise class; Weekly Class 2 (60 mins)	Yes
Strobl 2013	Control, Usual care	Diet and exercise	No	Nutrition Edu.		Yes	Individual and Group	Face to Face	Inpatient	0.7	0.7	NR		3-week treatment (nutrition therapy, physical exercise, and psychoeducation), number and length of sessions not stated.	Yes
	Telephone aftercare	Diet and exercise	Yes	Nutrition Edu.	Personal Trainer	Yes	Individual and Group	Face to Face; Telephone	Inpatient; Health Care; Home	6	0.7	NR + 8		3-week treatment (nutrition therapy, physical exercise, and psychoeducation), number and length of sessions not stated. PLUS 8 sessions [1 x 50 min group session; 1 x 10 min individual; 6 x 5-10 min telephone call].	Yes
Sundfor 2018	Continuous energy restriction	Diet only	Yes	Nutrition Edu.; Help following programme end	Dietitian	Unclear	Individual	Face to Face; Telephone; Print; Internet	Health Care	12	6	10	"Follow-up visits were scheduled at biweekly intervals up to eight weeks, and thereafter monthly up to six months for a total of 10 visits."		Yes
	Intermittent energy restriction	Diet only	Yes	Nutrition Edu.; Inter. Fasting; Help	Dietitian	Unclear	Individual	Face to Face; Telephone;	Health Care	12	6	10	"Follow-up visits were scheduled at biweekly intervals		Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
				following programme end				Print; Internet					up to eight weeks, and thereafter monthly up to six months for a total of 10 visits.		
Tapsell 2017	Usual care (Control)	Diet and exercise	Yes	Nutrition Edu.	Nurse (General)	Unclear	Individual	Face to Face; Telephone; Print	Health Care	12	3	11	Months 1-3: Monthly; Months 1 – 12: Quarterly; Phone calls: Quarterly	30 mins clinics; 15 min phone calls	Yes
	Intervention Group	Diet and exercise	Yes	Nutrition Edu.	Dietitian; Health Trainer	Yes	Individual	Face to Face; Telephone; Print	Health Care	12	3	11	Months 1-3: Monthly; Months 1 – 12: Quarterly; Phone calls: Quarterly	1 hour clinics; 15 min phone calls	Yes
	Intervention plus food supplement group (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tarraga Marcos 2017	G3	Diet and exercise	No	Nutrition Edu.		Unclear	Group	Face to Face	Health Care			1			No
	G2	Diet and exercise	Yes	Nutrition Edu.		Unclear	Group	Face to Face; Internet; Other	Health Care; Home	12	3	6	After the initial visit, visits were scheduled after 15 days, 1m, 3m, 6m and one year.		No
	G1	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Nurse (General)	Unclear	Group	Face to Face	Health Care	8	3	10	Every two weeks from weeks, 1 to 12 and then monthly from weeks 13 to 32	1 hour	No
Teerinie mi 2018	Control	Control	No	Nutrition Edu.		No	Other	Print	Health Care			0			Yes
	SHG Counselling	Diet and exercise	No	Nutrition Edu.	Nurse (General)	Yes	Group	Face to Face	Community	0.7	0.7	2		90	No
	CBT Counselling	Diet and exercise	Yes	Nutrition Edu.	Nutritionist	No	Group	Face to Face	Community	4.1	4.1	8	7 sessions every second week, last	90	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
													session after 1 month		
	Control plus HBCSS	Diet and exercise	No	Nutrition Edu.; Help following programme end		No	Other	Internet; Print	Health Care; Community	12	12	0		52-week access to Web-based HBCSS	Yes
	SHG Counselling plus HBCSS	Diet and exercise	No	Nutrition Edu.; Help following programme end	Nurse (General)	Yes	Group	Face to Face; Internet	Community	12	12	2		90 minutes 52-week access to Web-based HBCSS	Yes
	CBT Counselling plus HBCSS	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Nutritionist	No	Group	Face to Face; Internet	Community	12	12	8	7 sessions every second week, last session after 1 month	90 minutes 52-week access to Web-based HBCSS	Yes
ter Bogt 2009	GP usual care	Control	No		GP	Unclear	Individual	Face to Face	Health Care			1		10	No
	Lifestyle counselling from NP	Diet and exercise	Yes	Nutrition Edu.	Nurse (General)	Yes	Individual	Face to Face; Telephone	Health Care	36	8	11	Four visits (at months 1, 2, 3, 8); 1 telephone call (5 months) in the first year; one visit and one telephone call per year (year 2, 3)	Average duration of the visits was 35 minutes for the first and second visit (range 15–60 minutes) and 25 minutes for the third visit (range 15–40 minutes).	Yes
The Look AHEAD Research Group 2010	Diabetes support and education	Diet and exercise	No	Nutrition Edu.; Help following programme end	Nurse (General); Dietitian; Health Trainer; Personal Trainer	Yes	Group	Face to Face; Telephone; Print; Other	Community		48	22	3 sessions annually for the first 4 years of follow-up; thereafter, one session was provided annually	60 – 90	No
	Intensive lifestyle intervention	Diet and exercise	Yes	MR-P; Nutrition Edu.; Help following programme end	Nurse (General); Physician; Psychologist/ Counsellor; Dietitian;	Yes	Individual and Group	Face to Face; Telephone; Internet; Print; Other	Community	115	12	134	Months: 1-6: weekly; Months 7-12: 3/month; Years 2-4: Minimum of 1/month;	Months 1-6: Group sessions: 60 to 75 minutes; Individual sessions: 20 to 30 minutes.	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
					Personal Trainer								Year 5+: Monthly recommended.		
Trepanowski 2017	No-intervention control group	Control	No			Unclear			Community			0			No
	Daily calorie restriction group	Diet only	No	Nutrition Edu.; Help following programme end	Dietitian; Nutritionist	Unclear	Individual	Face to Face; Other	Community	12	6	14	Counselling: Months 4 – 6: weekly; Months 6 – 12: monthly		Yes
	Alternate-day fasting group	Diet only	No	Nutrition Edu.; Inter. Fasting; Help following programme end	Dietitian; Nutritionist	Unclear	Individual	Face to Face; Other	Community	12	6	14	Counselling: Months 4 – 6: weekly; Months 6 – 12: monthly		Yes
Tsai 2010	Control	Control	No	Nutrition Edu.	GP	No	Individual	Face to Face; Print	Health Care	12	12	4	Quarterly	2 – 3	No
	Brief counselling	Diet and exercise	No	Nutrition Edu.	Other AHPs; Health care professional (not specified)	Yes	Individual	Face to Face; Telephone; Print	Health Care	12	6	12	PCP visits: quarterly. MA visits: weeks 0, 2, 4, 8, 12, 16, 20, 24	15 – 20	Yes
Tuomilehto 2009	Control	Diet and exercise	No	Nutrition Edu.	Nurse (General); Physician	Yes	Individual			12		3	At baseline, 3ms and 12m		No
	Intervention	Diet and exercise	Yes	MR-F; Nutrition Edu.	Nutritionist; Physiotherapist	Unclear	Individual and Group	Face to Face	Health Care; Home	12	3	14	Every 2 weeks until week 12 then monthly	60 – 90	Yes
van de Glind 2017	Comparison group	Control	No	Nutrition Edu.		No		Print	Community						No
	EuroFIT group	Diet and exercise	No	Nutrition Edu.; Help following programme end	Health Trainer	Yes	Group	Face to Face; App; Print; Other	Community	6 - 9	3	13	Weekly for Weeks 1 to 12; One reunion meeting held 6–9 months after the program end.	90	Yes
vanWier 2011	Control – Brochure	Control	No	Nutrition Edu.			Other – information booklet								No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Internet Group	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor; Health Trainer	Yes	Individual	Internet	Workplace; Home	6	6	10	Every 2 weeks	Work on module on internet. Email contact after completion of each module.	No
	Phone Group	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor; Health Trainer	Yes	Individual	Telephone	Workplace; Home	6	6	10	Every 2 weeks	Call every 2 weeks. Work on modules individually in between calls.	No
Viegener 1990	Intermittent diet	Diet and exercise	No	Nutrition Edu.; Fin. Incentives; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face		12	6	26	Weekly	2 hours	No
	Standard treatment	Diet and exercise	No	Nutrition Edu.; Fin. Incentives; Inter. Fasting; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face		12	6	26	Weekly	2 hours	No
Vissers 2010	Control	Control	No			No									
	Diet only group (Diet)	Diet only	Yes	Nutrition Edu.	Dietitian	Unclear	Individual	Face to Face	Community	12	3	12	During the first 3 months participants had a dietary counseling every fortnight. During the next 3 months there was a dietary counseling once a month. 3 more visits months 6-12		Yes
	Diet + fitness training group (Fitness)	Diet and exercise	Yes	Nutrition Edu.	Dietitian; Physiotherapist	Unclear	Individual and Group	Face to Face	Health Care; Community; Home	12	3	51	As per diet only plus 2 x week for first 3m, 1 x week for second 3m		Yes
	Diet + WBV group (Vibration)	Diet and exercise	Yes	Nutrition Edu.	Dietitian; Physiotherapist	Unclear	Individual and Group	Face to Face	Community; Home	12	3	51	As per diet only plus 2 x week for first 3m, 1 x week for second 3m		Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
Volpe 2008	Exercise only	Exercise only	Yes	Help following programme end	Other	Yes	Group	Face to Face; Telephone; Internet	Community; Home	12	6	96	3/4/5 days/week exercise sessions; Monthly and periodic phone/email contact	30	
	Diet only	Diet only	Yes	Nutrition Edu.; Help following programme end		Unclear	Group	Face to Face; Telephone; Internet	Community	12	6	18	Weekly; biweekly nutrition sessions; Monthly; periodically phone/email contact		
	Combination of diet and exercise	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Other	Yes	Group	Face to Face; Telephone; Internet	Community; Home	12	6	114	3/4/5 days/week exercise sessions; Weekly; biweekly nutrition sessions; Monthly; periodically phone/email contact	30 mins exercise sessions; duration of nutritional sessions not reported.	
von Gruenigen 2012	Control	Control	No	Nutrition Edu.;		Unclear	Individual	Face to Face; Print	Health Care			1	Once		No
	Intervention	Diet and exercise	Yes	Nutrition Edu.	Physician; Psychologist/ Counsellor; Dietitian; Physiotherapist	Unclear	Individual and Group	Face to Face; Print; Internet	Health Care	12	6	16	Group sessions (10 weekly followed by 6 bi-weekly); Physician face-to-face counseling visits occurred at 3, 6 and 12 months	Group sessions were 60 min	Yes
von Gruenigen 2008	Control, Usual care	Control	No	Nutrition Edu.			Unclear	Print	Health Care			0			No
	Lifestyle intervention	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian; Other		Individual and Group	Face to Face; Telephone; Print	Health Care	6	6	24	Weekly for 6 weeks, bi-weekly for I month, and monthly for 3 months.		Yes
Wadden 1986	VLCD	Diet only	No	Nutrition Edu.	Psychologist/ Counsellor	No	Group	Face to Face		16	4	20	Weekly	90	No
	Behaviour	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face		24	6	35	Weekly	90	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Combined	Diet and exercise	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face		24	6	35	Weekly	90	No
Wadden 1994	Balanced deficit diet	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian	Yes	Group	Face to Face		18	12	65	First 52 weeks: weekly. Weeks 53-78; fortnightly	1.5 hours	Yes
	Very low-calorie diet	Diet and exercise	Yes	MR-P; MR-F; Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian	Yes	Group	Face to Face		18	12	65	First 52 weeks: weekly. Weeks 53-78; fortnightly	1.5 hours	Yes
Wadden 1998	Diet alone, Control	Diet only	Yes	MR-P; Nutrition Edu.	Psychologist/ Counsellor		Group	Face to Face; Print	Community; Home	11.1	3.9	38	First 28 weeks: weekly. Then fortnightly for 20 weeks. Once every 3 months in 2nd year.	1.5	No
	Diet plus aerobic exercise	Diet and exercise	Yes	MR-P; Nutrition Edu.	Psychologist/ Counsellor	Yes	Group	Face to Face; Print	Community; Home	11.1	3.9	160	First 28 weeks: weekly. Then fortnightly for 20 weeks. Once every 3 months in 2nd year.	1.5	No
	Diet plus strength training	Diet and exercise	Yes	MR-P; Nutrition Edu.	Psychologist/ Counsellor	Yes	Group	Face to Face; Print	Community; Home	11.1	3.9	160	First 28 weeks: weekly. Then fortnightly for 20 weeks. Once every 3 months in 2nd year.	1.5	No
	Diet plus aerobic and strength training	Diet and exercise	Yes	MR-P; Nutrition Edu.	Psychologist/ Counsellor	Yes	Group	Face to Face; Print	Community; Home	11.1	3.9	160	First 28 weeks: weekly. Then fortnightly for 20 weeks. Once every 3 months in 2nd year.	1.5	No
Wadden 2004	Nondieting approach	Diet and exercise	Yes	Nutrition Edu.	Psychologist/ Counsellor; Dietitian	No	Group	Face to Face		14	10	31	Weekly for 20 weeks, every other week for weeks 22-40, follow up sessions 52 and 65	90	No
	Balanced-deficit diet	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian	No	Group	Face to Face		14	10	31	Weekly for 20 weeks, every other week for weeks 22-	90	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
													40, follow up sessions 52 and 65		
	Meal replacement plan	Diet and exercise	Yes	MR-P; Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian	No	Group	Face to Face		14	10	31	Weekly for 20 weeks, every other week weeks 22-40, follow up sessions 52 and 65	90	No
Waleekhachonloet 2007	Individual behavior therapy	Diet only	No	Nutrition Edu.	Health Trainer		Individual	Face to Face	Community	3	3	5	One per two weeks	First session: 2h all the rest: 30 min.	Yes
	Group behavior therapy	Diet only	No	Nutrition Edu.	Health Trainer		Group	Face to Face	Community	3	3	5	One per two weeks	First session: 2h all the rest: 60 min.	Yes
Weinstock 2013	Conference Call DPP	Diet and exercise	Yes	Nutrition Edu.	Nurse (General); Dietitian; Other	Yes	Group	Telephone; Print	Health Care	24	24	40 plus 6 optional	Educators: weekly-5 weeks, monthly-1 year; Coaches: Monthly (Year 1)		Yes
	Individual Call DPP	Diet and exercise	Yes	Nutrition Edu.	Nurse (General); Dietitian; Other	Yes	Individual	Telephone; Print	Health Care	24	24	40 + 6 optional	Educators: weekly-5 weeks, monthly-1 year; Coaches: Monthly (Year 1)		Yes
West 2007	Attention control	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Nutritionist; Exercise physiologist; Health Trainer	No	Group	Face to Face		18	6	47	Weekly for 6m, Biweekly for 6m, and then monthly for 6m.	45	No
	Motivational interviewing	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Nutritionist; Exercise physiologist; Health Trainer	No	Individual and Group	Face to Face		18	6	47	Weekly for 6m, Biweekly for 6m, and then monthly for 6m. Five individual motivational interviewing sessions were offered, with the first session before starting group	45	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
													therapy and then at 3, 6, 9, and 12m.		
West 2011	Control	Control	No												No
	Lifestyle Intervention	Diet and exercise	No	Nutrition Edu.; Help following programme end	Health Trainer	Yes	Group	Face to Face; Print	Community	12	4	20	Weekly for first 4m (12 weeks?), then monthly for 8m	60	Yes
West 2016	Internet behavioral weight control treatment	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	No	Group	Internet	Community	18	6	36	Weekly for 6m; Monthly for 12m	1 hour	Yes
	Internet behavioral weight control treatment + Motivational interviewing	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Health Trainer	Yes	Individual and Group	Telephone; Internet	Community	18	6	42	Weekly for 6m; Monthly for 12m plus 1 MI session before first group session, 1 at session 5 the remaining 4 at 3m intervals.	1 hour1 hour group sessions; 30 minutes MI sessions	Yes
Whelton 1998	Non-weight loss (Usual lifestyle, control group plus sodium reduction)	Control	No			Unclear	Group	Face to Face	Community	12	12	3	Quarterly for 1 year		No
	Weight loss (Weight loss alone plus weight loss and sodium reduction combined intervention)	Diet and exercise	Yes	Nutrition Edu.;	Nutritionist; Personal Trainer	Unclear	Individual and Group	Face to Face; Telephone; Print	Community	30	8	46	Weekly during the intensive phase (Months 0-4); Biweekly during the extended phase (Months 5-8); Monthly during the maintenance phase.		Yes
Wilson 2010	Guided Self-help Based on CBT	Diet only	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	Yes	Individual	Face to Face; Print	Health Care	5.5	5.5	10	The first 4 sessions were weekly, the next 2 occurred at 2-week intervals, and the last 4 occurred at 4-week intervals.	First session: 60 minutes; All following sessions: 25 minutes	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	Behavioral Weight Loss Treatment	Diet and exercise	Yes	Nutrition Edu.	Psychologist/ Counsellor	Yes	Individual	Face to Face	Health Care	5.5	5.5	20	16 weekly sessions; 4 sessions at 2-week intervals	Individual weekly sessions: 50 mins	Yes
	Interpersonal Psychotherapy	Diet only	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	Yes	Individual	Face to Face	Health Care	5.5	5.5	19	3 sessions over 2 weeks; 12 weekly sessions; 4 sessions over 2 week intervals	First session: 2 hours; All following sessions: 50 to 60 minutes. The total therapy time was the same as that for BWL group.	Yes
Wilson 2016	Control - Self Study Group	Diet and exercise	No	Nutrition Edu.		No	Other – self-study	Print	Home			1			No
	Phone Fuel Your Life	Diet and exercise	Yes	Nutrition Edu.	Health Trainer	No	Individual	Telephone; Print	Home	12	6	11	0-2m: biweekly. 2-6m: monthly. 6-12m: bimonthly.	20 mins' 8 sessions with a health coach	Yes
	Group Fuel Your Life	Diet and exercise	Yes	Nutrition Edu.	Health Trainer	No	Group	Face to Face; Print	Workplace	12	6	11	0-2m: biweekly. 2-6m: monthly. 6-12m: bimonthly.	60 mins' 8 sessions with a health coach	No
Wilson 2016b	Control	Control	No			No									No
	FUEL Your Life peer health coaches + nurse education	Diet and exercise	No	Nutrition Edu.	Nurse (General); Dietitian; Health Trainer	Yes	Individual and Group	Face to Face; Print	Workplace	6	6	6	Monthly	Baseline: initial 1:1 session 0-6m: 6 x 10 min group sessions and weekly announcements.	Yes
Wing 1985	Standard-care condition	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor; Nutritionist	No	Group	Face to Face		4	4	4	Monthly		No
	Nutrition education	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor; Nutritionist	No	Group	Face to Face		4	4	16	Weekly		No
	Behavior modification	Diet and exercise	No	Nutrition Edu.; Fin. Incentives	Psychologist/ Counsellor; Nutritionist	No	Group	Face to Face		4	4	16	Weekly		No
Wing 1988	Diet plus placebo exercise	Diet only	Yes	Nutrition Edu.; Fin. Incentives; Help			Group	Face to Face	Health Care; Home	8.5	2.5	26	Both groups participated in a behavioural weight	1 hour	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
				following programme end									control programme, with group meetings held twice a week for 10 weeks and monthly for the following 6m.		
	Diet plus moderate exercise	Diet and exercise	Yes	Nutrition Edu.; Fin. Incentives; Help following programme end			Group	Face to Face	Health Care; Home	8.5	2.5	26	Both groups participated in a behavioural weight control programme, with group meetings held twice a week for 10 weeks and monthly for the following 6m.	1 hour	No
Wing 1988b	Diet only	Diet only	Yes	Nutrition Edu.; Fin. Incentives; ; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face	Health Care; Home	14	2.5	52	Both groups attended treatment sessions 3 times/week (versus 2 times/week in Study 1) for 10 weeks. After this intensive training period, subjects met weekly for an additional 10 weeks and then monthly for a year.	1 hour	No
	Diet plus exercise	Diet and exercise	Yes	Nutrition Edu.; Fin. Incentives; Help following programme end	Psychologist/ Counsellor	No	Group	Face to Face	Health Care; Home	14	2.5	52	Both groups attended treatment sessions 3 times/week (versus 2 times/week in Study 1) for 10 weeks. After this intensive training period, subjects met weekly for an additional 10 weeks	1 hour	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
													and then monthly for a year.		
Wing 1991	Behavior therapy alone	Diet and exercise	Yes	Nutrition Edu.	Psychologist/ Counsellor	No	Group	Face to Face	Inpatient; Home	17	5	25	Weekly meetings for 20 weeks, Maintenance meetings at 24, 28, 46, 72 weeks		No
	Behavior therapy plus VLCD	Diet and exercise	No	MR-P; Nutrition Edu.	Psychologist/ Counsellor	No	Group	Face to Face	Inpatient; Home	17	5	31	Weekly meetings for 20 weeks, Maintenance meetings at 24, 28, 46, 72 weeks PLUS biweekly meetings with the physician for 3m.		No
Wing 1996	Standard Behavioral Treatment (SBT)	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor	No	Group	Face to Face		6	6	26	Weekly		No
	SBT plus structured meal plans and grocery lists (menu)	Diet and exercise	No	Nutrition Edu.	Psychologist/ Counsellor	No	Group	Face to Face		6	6	26	Weekly		No
	SBT plus structured meal plans plus food provision with participants sharing the cost of the food (Buy food)	Diet and exercise	No	MR-F; Nutrition Edu.	Psychologist/ Counsellor	No	Group	Face to Face		6	6	26	Weekly		No
	SBT plus structured meal plans plus food	Diet and exercise	No	MR-F; Nutrition Edu.	Psychologist/ Counsellor	No	Group	Face to Face		6	6	26	Weekly		No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	provision with the food provided free (free food)														
Wing 1998	Control	Diet and exercise	No	Nutrition Edu.		No		Print							No
	Diet	Diet only	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian	No	Group	Face to Face	Community; Home	24	6	51	Weekly for the first 6m; Biweekly for the next 6m		No
	Exercise	Exercise only	No		Psychologist/ Counsellor; Exercise physiologist	No	Group	Face to Face	Community; Home	24	6	51	Weekly for the first 6m; Biweekly for the next 6m	50 – 60 min walk with the therapist at each of these weekly meetings.	No
	Diet plus exercise	Diet and exercise	No	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian; Exercise physiologist	No	Group	Face to Face	Community; Home	24	6	51	Weekly for the first 6m; Biweekly for the next 6m		No
Wing 2003	No break group (control)	Diet and exercise	No	Nutrition Edu.; Help following programme end			Group	Face to Face		4	4	14	Weekly	The control group completed the 14 sessions on 14 consecutive weeks, as would be typical of a behavioral weight loss program.	Yes
	Long break group	Diet and exercise	No	Nutrition Edu.; Help following programme end			Group	Face to Face		5	5	14		The long break group (LB) took a 6-week break after the seventh lesson.	Yes
	Short break group	Diet and exercise	No	Nutrition Edu.; Help following programme end			Group	Face to Face		5	5	14		The short break group (SB) took 2-week breaks after the	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														third, sixth, and ninth lessons.	
Wing 2010	Structured Education Program	Diet and exercise	Yes	Nutrition Edu.	Psychologist/ Counsellor	Unclear	Group	Face to Face	Community	15	6	7	Months 1, 2, 3, 4, 6, 9, and 15	1 hour	No
	Weight Loss Intervention (Skills Based maintenance)	Diet and exercise	Yes	MR-P; Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	Yes	Group	Face to Face	Community	18	6	50	Weekly for 6 months and every other week for 12 months	1 hour	Yes
	Weight Loss Intervention (Motivation Based maintenance)	Diet and exercise	Yes	MR-P; Nutrition Edu.; Help following programme end	Psychologist/ Counsellor	Yes	Group	Face to Face	Community	18	6	50	Weekly for 6 months and every other week for 12 months	1 hour	Yes
Yannakoulia 2008	Usual care group	Control	No	Nutrition Edu.	Dietitian	No	Individual	Face to Face	Health Care			1			Yes
	Intensive care group	Diet and exercise	No	Nutrition Edu.	Dietitian	No	Individual	Face to Face	Health Care	2	2	5	Every two weeks		Yes
Yardley 2014	Usual care	Control	No		Other AHPs	No			Health Care			0			
	Web-based only	Diet and exercise	No	Nutrition Edu.; Help following programme end		No	Individual	Internet; Other	Health Care; Home	3	3	0	Instructed to access website weekly		Yes
	Basic nurse support	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Nurse (General)	No	Individual	Face to Face; Telephone; Internet	Health Care; Home	3	3	3	2 weeks, 1m, 3m	15 – 20	Yes
	Regular nurse support	Diet and exercise	No	Nutrition Edu.; Help following programme end	Nurse (General)	No	Individual	Face to Face; Telephone; Internet	Health Care; Home	6	6	7	2 weeks, and then monthly for the first 6m	15 – 20	Yes
Yates 2009	Control group	Control	No			No		Print				0			No
	PREPARE group	Diet and exercise	No	Nutrition Edu.	Health Trainer	No	Individual and Group	Face to Face	Community	6	6	3	1, 3 and 6m	The first session lasted 180 min and the follow-up review progress lasted 10 mins.	Yes

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
	PREPARE with pedometer	Diet and exercise	No	Nutrition Edu.	Health Trainer	No	Individual and Group	Face to Face	Community	6	6	3	1, 3 and 6m	The first session lasted 180 min and the follow-up review progress lasted 10 mins.	Yes
Yates 2018	Placebo + no lifestyle	Control	No												
	Metformin + no lifestyle (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Placebo + lifestyle	Diet and exercise	No	Nutrition Edu.		No	Individual and Group	Face to Face		4	4	16	Weekly		Yes
	Metformin + lifestyle (N/A)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Yeh 2003	Counseling based intervention	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Dietitian	No	Individual	Face to Face	Community	6	6	6	Monthly	2 x 1 hour. 4 x 30 min.	Yes
	Skills based intervention	Diet only	No	Nutrition Edu.; Help following programme end	Dietitian	No	Individual and Group	Face to Face; Telephone; Internet	Community; Home	6	6	7	Monthly	2 x 90 mins 2 x 2 hour (supermarket) 2 x 90 mins (restaurant) 1 x 2 hr (home)	Yes
Yeh 2016	Control group	Control	No			No									
	Intervention group	Diet and exercise	Yes	Nutrition Edu.	Health Trainer	No	Group	Face to Face	Community	12	6	18	Every second week the first six months and monthly during the second semester	1.5-2 hours	Yes
Yin 2018	Comparison-Control Group	Diet and exercise	No	Nutrition Edu.	Nurse (General)	No	Individual and Group	Face to Face	Health Care	6	6	7	Every three-four weeks	Participants in the comparison group received a counselling session and were invited to attend 6 general health education classes on PA,	

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														nutrition, chronic diseases (obesity, diabetes, heart diseases) and menopause at the same venue as the intervention group.	
	Intervention Group	Diet and exercise	No	Nutrition Edu.	Health Trainer	Yes	Individual and Group	Face to Face; Telephone	Health Care; Home	6	6	22	Weekly	1 hour	Yes
Zhang 2016	Control	Control	Yes		Other	No	Group	Face to Face		12	12	18	Biweekly	All participants attended group health education sessions, which were held biweekly in the first 6m and monthly in the last 6m of the intervention.	No
	Moderate exercise	Exercise only	No		Other	No	Other - education sessions: group-based; moderate-exercise sessions unsupervised	Face to Face; Telephone	Home	12	12	18	Biweekly and weekly	Participants were instructed to briskly walk at approximately 120 steps per minute for 30 minutes per session and 5 sessions per week. All participants attended group health education sessions, which were held biweekly in the first 6m and monthly in the last	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														6m of the intervention. plus, Participants in the moderate exercise program were required to wear pedometers and record their daily exercise in a log, which was reviewed weekly by study staff.	
	Vigorous-moderate exercise	Exercise only	No		Physician; Other	No	Individual and Group	Face to Face; Telephone	Community; Home	12	12	138	Biweekly and weekly	Participants were required to participate in 5, 30-min., vigorous exercise sessions each week supervised by a study physician at a local community health center. All participants attended group health education sessions, which were held biweekly in the first 6m and monthly in the last 6m of the intervention. Participants were required to participate in 5	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														vigorous exercise sessions each week supervised by a study physician at a local community health center. After 6 months of vigorous exercise, participants switched to moderate exercise for another 6 months. plus, Participants in the moderate exercise program were required to wear pedometers and record their daily exercise in a log, which was reviewed weekly by study staff.	
Zwickert 2016	CBT + Minimal	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian	No	Individual and Group	Face to Face; Telephone; SMS	Community	6	3			All sessions were 90 min in duration, with the exception of the first session which was 120 min.	No
	CBT + Intensive	Diet and exercise	Yes	Nutrition Edu.; Help following programme end	Psychologist/ Counsellor; Dietitian	No	Individual and Group	Face to Face; Telephone; Internet; SMS	Community	9	3			All sessions were 90 min in duration, with the exception of the first session which was 120 min. 3-6m daily text	No

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	
														messages, 6-9m weekly text messages	

Approx.: Approximately; **Appt.**: Appointment/s; **Fin. Incentives;** Financial Incentives**; GP:** General Practitioner **Inter. Fasting:** Intermittent Fasting; **Min/s:** Minute/s **M/Mths:** month/s**; MR – F =** Meal replacement (Full); **MR – P =** Meal replacement (Partial); **N:** Number; **N/A:** Not applicable; **NR:** Nor reported; **Nutrition Edu.** = Nutrition Education; **PA:** Physical Activity**; SMS**: Short Message Service; **VLCD:** Very low-calorie diet

[a] See table below for Provider category descriptions [b] Unless otherwise stated; [c] Exercise sessions were assumed to be unsupervised and did not contribute to the number of sessions unless otherwise stated.

Provider	Provider descriptions as reported in included studies
Nurse (Specialist)	
Nurse (General)	Nurse educator; RNS;
GP	General internists
Physician (Any doctor not a GP)	Medical doctors; Specialists in endocrinology, and internal medicine; Clinicians; Endocrinologists; Graduates in medicine; Research cardiologist; Doctoral-level clinicians (with an average of 4.8 years of experience delivering behavioral weight loss treatment); Occupational doctor.
Psychologist/ Counsellor	Therapist; Masters-level counseling psychology students; MA in behavioural psychology; Lifestyle counsellor; Graduates In psychology; Psychology graduate students; Advanced degree in behavioral psychology; Mental health counsellor; Wellness counsellors; Professional Counsellor; Psychotherapist; Psychotherapists and masters students graduate students in clinical psychology; Clinical psychology graduate students; Lifestyle counsellor; Clinical psychology graduate students; Experienced behavioural weight control counsellors; Behavior therapist; Counsellor with a degree in nutrition or physical activity
Dietitian	Dietitian; Masters of Dietetics Students
Nutritionist	Provider described by authors as nutritionist; Nutrition technician; Graduates in nutrition; Advanced degree in nutrition; Nutritional interventionist; Nutritionist (MSc in nutrition); Nutrition/Diet interventionists; Two qualified or student clinical nutritionists
Physiotherapist	Physical therapist; Physical/recreational therapists
Exercise physiologist	Exercise consultants; MA in exercise physiology; Graduates in physical activity and sport science (SPAS); Advanced degree in exercise physiology; Exercise counsellors
Other Allied Health Professionals	Occupational therapist; Pharmacist; Nurses/physician assistants; Hospital staff; Social worker with special competence in CT; Medical-assistant
Health trainer	Lifestyle coaches; Mindfulness meditation instructors; Community health educator; MA in health education; Behavioural consultant; Health educator; Telephone counsellors; Trained lifestyle coaches; Health Promotion coaches; Weight loss coaches; Wellness leader; Weight Watchers leader; Trained interventionists with expertise in both content area (i.e., physical activity and nutrition) and behavioral therapy; Food advisors recruited from local community; Community Health Workers; Lifestyle activity consultant; Trained lifestyle coaches; Lifestyle Coach/ medical assistant; Masters-level staff with extensive training in behavioral weight loss; Nutrition health educator; IHM health staff graduates; 6 trained CAMWEL advisors recruited from various occupational backgrounds including healthcare, in line with the NHS health trainers initiative; Weight loss group leaders supervised by an exercise physiologist; Study coordinator (with health/nutrition background) together with a peer leader/study coordinator (experienced in adult training and self-management programs); Health educator; Degree in health sciences; Trainers (for meal replacement group); Health coach and health practitioner backgrounds and trained by the senior psychologists; Diabetes educators; EuroFIT coaches; Program providers who were trained in nutrition, education, and behavioral interventions; Masters degree–level health educators delivered health education sessions; Behaviorist; Trained lay health educators (LHEs) (community volunteers or existing senior center staff); Peer health coach; Educators held an undergraduate degree in a relevant discipline (dietician, sports scientist)
Personal Trainer	Certified exercise trainer; Trained fitness instructor; Physical activity specialist; Football coaching staff; Physical Activity Counselor; Trained interventionist and exercise coaches who were skilled in exercise science; Exercise programme supervised by a professional trainer; Fitness professional; Exercise interventionists; Exercised in a supervised setting; Trained certified technicians assessed each participant; Sports therapist; Exercise specialists;

Study ID	Groups:	Intervention type	Intervention faded in intensity	Features (meal replacements, nutrition education, financial incentives, intermittent fasting, content designed to help participants following programme end)	Provider [a]	Provider training received	Delivery		Intervention setting	Intervention timing (months)		Sessions			Intervention personalised, titrated or adapted
							Mode	Format		Last contact	End (step change in intensity)	N[c]	Frequency	Length per session with description for varying lengths. (minutes [b])	

Health care professional (not specified)	Church health advisors (CHAs) were members of their respective church's health ministry (e.g., nurses, pharmacists, physicians) and were trained by a co-investigator certified to perform GLB training; Standard clinical care provider; Hospital based care; Primary care providers; Master's trained health professionals; health professional
Other	Research staff; Behavioral specialist; PhD-level interventionists; Doctoral level graduate students; Research assistant; Case manager; Coaches; YMCA staff; Peer leader; Teacher; Interventionist; Successful group members selected through interview; Varied, may be successful slimmers; Well-trained investigators; Research assistant; PhD holders or PhD candidates in at least their third year of study; BE WELL intervention staff; Physical activity, psychological support male researcher; The tutors; Study investigator; Ergonomist; Study coordinator; Interventionist; Cooperative Extension Service Family and Consumer Sciences Agents or individuals with bachelors or masters degrees in nutrition, exercise science, or psychology; Study partner; Trained interventionists; Group facilitator; External people representing diverse areas of expertise; Two experienced coleaders; Administrative study staff (not intervention staff); Trained graduate or undergraduate students; Had backgrounds in dietetics, psychology and/or exercise physiology; Primary investigator; Study staff
If it was an OR between providers, both were listed	

Table 6. Results from sensitivity analyses; univariate

Characteristic	Pre-planned (removing studies at high risk)		Post-hoc (removing studies at unclear and high risk)	
	Trend estimate (kg/month)	**95% confidence interval**	**Trend estimate (kg/month)**	**95% confidence interval**
Weight loss at programme end (kg)	0.013	0.01 to 0.017	0.0099	0.0062 to 0.014
Rate of weight loss during the programme (kg per year)	0.032	0.02 to 0.044	0.022	0.0094 to 0.035
Partial meal replacement	0.15	0.087 to 0.21	0.11	-0.0033 to 0.23
Total meal replacement	0.071	0.017 to 0.12	0.067	0.017 to 0.12
Programme involved changes to diet	0.021	-0.12 to 0.081	-0.17	-0.19 to 0.53
Programme involved changes to physical activity	0.019	-0.013 to 0.052	-0.024	-0.084 to 0.038
Intervention help	-0.026	-0.05 to -0.0022	0.0056	-0.039 to 0.051
Intervention faded in intensity	-0.011	-0.039 to 0.017	0.039	-0.014 to 0.092
Setting (inpatient)	0.17	-0.012 to 0.34	-0.069	-0.62 to 0.48
Setting (Residential)	-0.014	-0.11 to 0.08	NE	NE
Financial incentives	0.11	0.026 to 0.2	0.15	-0.079 to 0.37
Fasting (yes)	0.07	-0.32 to 0.46	-0.0093	-0.32 to 0.3
Outside (yes)	-0.3	-0.44 to -0.17	-0.013	-0.23 to 0.21
Last contact (months)	-0.00002	-0.0017 to 0.0017	-0.015	-0.044 to 0.015

Table 7. Results from sensitivity analysis; model a

	Pre-planned (removing studies at high risk)		Post-hoc (removing studies at unclear and high risk)	
Characteristic	**Trend estimate (kg/month)**	**95% confidence interval**	**Trend estimate (kg/month)**	**95% confidence interval**
Weight loss at programme end (kg)	0.026	0.018 to 0.034	0.05	0.03 to 0.06
Rate of weight loss during the programme (kg per year)	-0.047	-0.073 to -0.021	-0.07	-0.15 to 0.01

Table 8. Results from sensitivity analysis; model b

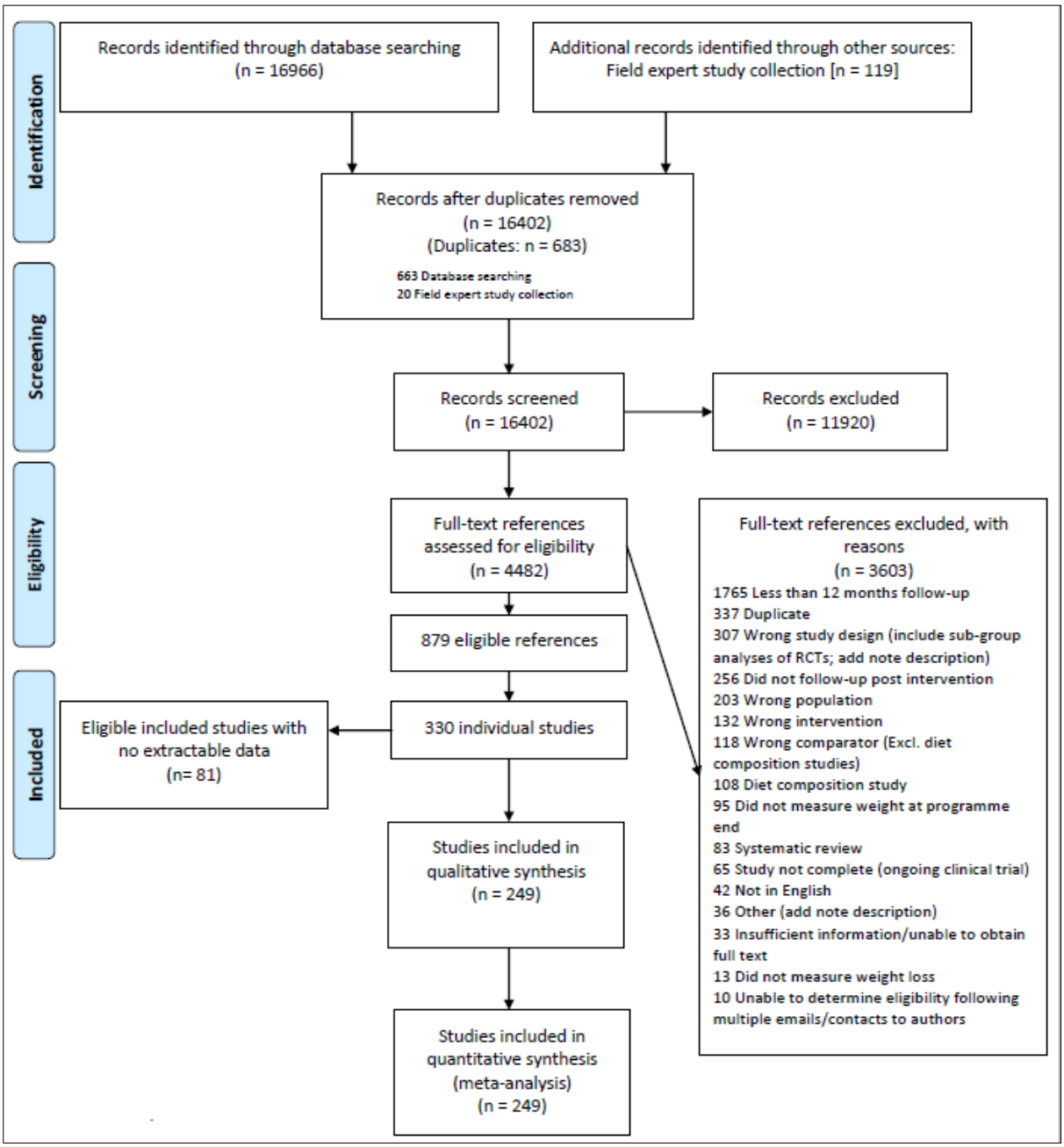
	Pre-planned (removing studies at high risk)		Post-hoc (removing studies at unclear and high risk)	
Characteristic	**Trend estimate (kg/month)**	**95% confidence interval**	**Trend estimate (kg/month)**	**95% confidence interval**
Partial meal replacement	0.134	0.071 to 0.196	0.093	-0.03 to 0.22
Total meal replacement	0.074	0.022 to 0.126	0.061	0.009 to 0.112
Setting (inpatient)	0.144	-0.025 to 0.313	0.022	-0.033 to 0.077
Financial incentives	0.087	0.004 to 0.169	0.095	-0.137 to 0.329
Outside (yes)	-0.305	-0.433 to -0.177	0.022	-0.191 to 0.236

Table 9. Results from sensitivity analysis; model c

	Pre-planned (removing studies at high risk)		Post-hoc (removing studies at unclear and high risk)	
Characteristic	**Trend estimate (kg/month)**	**95% confidence interval**	**Trend estimate (kg/month)**	**95% confidence interval**
Weight loss at programme end (kg)	0.023	0.015 to 0.031	0.02	0.01 to 0.02
Rate of weight loss during the programme (kg per year)	-0.043	-0.070 to -0.015	-0.01	-0.03 to 0.01
Partial meal replacement	0.11	0.049 to 0.161	-0.02	-0.05 to 0.00
Total meal replacement	0.025	-0.032 to 0.083	-0.02	-0.04 to 0.01
Intervention faded in intensity	-0.020	-0.045 to 0.006	-0.03	-0.05 to 0.00
Financial incentives	0.040	-0.033 to 0.112	0.09	0.02 to 0.16
Outside (yes)	-0.30	-0.42 to -0.18	-0.24	-0.35 to -0.14

SUPPLEMENTAL FIGURES

Supplemental Figure 1. PRISMA diagram of study flow



Supplemental Figure 2. Weight change trajectory after programme end in studies where programme was available outside the study, with most influential study removed (Perri 1984)