A systematic review of group walking in healthy people to promote physical activity – Supplement.

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Contents:

Supplementary Table 1. Search terms and searches

Searches were conducted in March 2016 for the years 2011-2016 to find relevant studies. Medline, Embase, PsychInfo, CAB Abstracts, Cochrane Central, and Web of Science, Science Citation Index were searched. Also many relevant studies would have been included in at least one of the three recent systematic reviews on walking interventions, so the included and excluded studies lists of these reviews were examined, using full texts if necessary to establish whether they met our inclusion criteria. The searches for these reviews were dated

- Kassavou SR searches to March 2012
- Hanson SR searches to November 2013
- ScHARR searches not given but presumed to be to end 2011

Medline (OVID) search terms:

(Walk*) AND (program* or group* or led or scheme* or club* or community-based) AND (Healthy Volunteers/ or healthy.mp. or Healthy People Programs/) AND (physical activity or exercise)

Searches were limited to: human, all adults, therapy (maximises sensitivity)

Supplementary Table 2. List of excluded full text papers with reasons for exclusion (n=61)

Study	**Reason for exclusion**
Anton SD, Duncan GE, Limacher MC et al. How much walking is needed to improve cardiorespiratory fitness? An examination of the 2008 Physical Activity Guidelines for Americans. Research Quarterly for Exercise and Sport 2011; 82(2):365-70	Not WG intervention
Armstrong K, Edwards H. The effectiveness of a pram-walking exercise programme in reducing depressive symptomatology for postnatal women. International journal of Nursing Practice 2004;10:177-194	No PA outcomes given
Asikainen T-M, Miilunpalo S, Oja P et al. Randomised controlled walking trials in postmenopausal women: the minimum dose to improve aerobic fitness? British journal of Sports Medicine 2002;36:189-94	Not WG intervention
Baker G, Gray SR, Wright et al. The effect of a pedometer-based community walking intervention "Walking for Wellbeing in the West" on physical activity levels and health outcomes: a 12-week randomised controlled trial. International Journal of Behavioural Nutrition and Physical Activity 2008;5(44):1-15	Not WG intervention
Banks-Wallace J. Outcomes from the Walk the Talk: a nursing intervention for Black women. The ABNF Journal 2007 Winter.	Pre-post design
Becofsky KM*,* Sui X*,* Lee DC*, et al.* A prospective study of fitness, fatness, and depressive symptoms*.* American Journal of Epidemiology 2015*:* 181*:* 311–320*.*	Unavailable (PhD)
Bemelmans RH, Blommaert PP, Wassink AM et al. The relationship between walking speed and changes in cardiovascular risk factors during a 12-day walking tour to Santiago de Compostela: a cohort study. BMJ Open 2012; 2(3): e000875	No comparator group
Bergstrom I, Lombardo C, Brinck J. Physical training decreases waist circumference in postmenopausal borderline overweight women. Acta Obstetricia et Gynecologica Scandinavica 2009;88(3): 308-13	All have osteoporosis
Bird M, Hill KD, Ball M et al. The long-term benefits of a multi-component exercise intervention to balance and mobility in healthy older adults. Archives of Gerontology and Geriatrics 2011;52:211–6	Not WG intervention
Blain H, Tallon G, Jaussent A et al. Effect of exercise tolerance and fat mass of a 6-month brisk walking program in sedentary women aged 60 or older: results of a randomised trial. European Geriatric Medicine 2013;4:S20-80, p126	Conference abstract

Bocalini DS, Serra AJ, Murad N et al. Water- versus land-based exercise effects on physical fitness in older women. Geriatrics & Gerontology International 2008;8(4): 265-71	Not WG intervention
Borg P, Kukkonen-Harjula K, Fogelholm M. Effects of walking or resistance training on weight loss maintenance in obese, middle-aged men: a randomized trial. International Journal of Obesity 2002;26:676–83	Not WG intervention
Brandon LJ, Elliott-Lloyd MB. Walking, body composition and blood pressure dose-response in African American and white women. Ethnicity and Disease 2006;6:675-81	No PA outcomes given
Brousseau L, Wells GA, Kenny GP et al. The implementation of a community-based aerobic walking programme for mild-to moderate knee osteoarthritis: a knowledge translation randomised controlled trial: part II clinical outcomes. BMC Public Health 2012;12:1073	Participants have knee arthritis
Cheng SJ, Yang YR, Cheng FY et al. The changes of muscle strength and functional activities during aging in male and female populations. International Journal of Gerontology 2009;8(4): 197-202	Not WG intervention
Cooper AR, Kendrick A, Stansbie D et al. Plasma homocysteine in sedentary men: Influence of moderately intense exercise. Cardiovascular Reviews & Reports 2000;21(7): 371-374+380	Unavailable
Cox KL, Burke V, Beilin LJ et al. Blood pressure rise with swimming versus walking in older women: the sedentary women exercise adherence trial 2 (SWEAT 2). Journal of Hypertension 2006;24:307-14	Active control group (swimming)
Cox K, Kane E, Burke V et al. Long-term effects of 6-months of home-based physical activity and counselling on the mental health of older adults: The MOVES study. Journal of Science and Medicine in Sport 2011;14S: e1–e119 (29)	Conference abstract
Cyarto EV, Brown WJ, Marshall AL et al. Comparison of the effects of a home-based and group-based resistance training programme on functional ability in older adults. American Journal of Health Promotion 2008;23:13-7	Active control (resistance training)
Duncan J, Gordon NF, Scott CB. Women walking for health and fitness. JAMA 1991;266(23):3295-9	No PA outcomes given
Estabrooks PA, Bradshaw M, Dzewaltowski DA et al. Determining the impact of Walk Kansas: applying a team-building approach to community physical activity promotion. Annals of Behavioural Medicine 2008;36(1):1-12	No numerical results for comparator

Fantin F, Rossi A, Morgante S et al. Supervised walking groups to increase physical activity in elderly women with and without hypertension: effect on pulse wave velocity. Hypertension Research 2012; 35(10):988-93	Pre-post design
Figard-Fabre H, Fabre N, Leonardi A et al. Efficacy of Nordic walking in obesity management. International Journal of Sports Medicine 2011;32:407-14	No inactive control
Foulds HJ, Bredin SS, Warburton DE. The effectiveness of community based physical activity interventions with Aboriginal peoples. Preventive Medicine 2011;53(6): 411-6	Active control group (walk/running or running)
Foulds HJ, Bredin SS, Charlesworth SA et el. Exercise volume and intensity: a dose–response relationship with health benefits. European Journal of Applied Physiology 2014;114:1563–71	Not WG intervention
Garnier S, Gaubert I, Joffroy S et al. Impact of brisk walking on perceived health evaluated by a novel short questionnaire in sedentary and moderately obese postmenopausal women. Menopause-the Journal of the North American Menopause Society 2013;20(8): 804-12	No PA outcomes
Hamdorf PA, Withers RT, Penhall RK et al. Physical training effects on the fitness and habitual activity patterns of elderly women. Archives of Physical Medicine and Rehabilitation 1992;73(7): 603-8	Unavailable
Heydarnejad S, Dehkordi AH. The effect of an exercise program on the health-quality of life in older adults. A randomized controlled trial. Danish Medical Bulletin 2010;57(1): A4113	Not WG intervention
Hincklemann LL, Nieman DC. The effects of a walking programme on body composition and serum lipids and lipoproteins in overweight women. Journal of Sports Medicine & Physical Fitness 1993;33:49-58	Unavailable
Hogue PA. The effects of buddy support on physical activity in African American women. University of Toledo, USA, 2007	Unavailable (PhD)
Hunter R. Tully M, Davis M et al. The 'Physical Activity Loyalty Card Scheme': A RCT investigating the use of incentives to encourage physical activity. Journal of Science and Medicine in Sport 2012;15:S328–S362	Not WG intervention
Ijuin M, Sugiyama M, Sakuma N et al. Walking exercise and cognitive functions in community-dwelling older adults: preliminary results of a randomised controlled trial. International Journal of Geriatric Psychiatry 2013;28:109-10	No PA outcomes
Izumi BT, Schultz AJ, Mentz G et al. Leader behaviours, group cohesion and participation in a walking group program. American Journal of Preventive Medicine 2015;49(1):41-9	No numerical results

Josula LK. Examination of physical activity for health promotion, and attitudes towards aging, among adults - cross-cultural comparisons; healthcare provider recommendations; toolkit evaluation. Dissertation Abstracts International: Section B: The Sciences and Engineering 2011;71(7B):4208	Unavailable (PhD)
Lautenschlager NT, Goh A, Etherton-Beer C et al. The indigo study: A randomized controlled trial of physical activity with individual goal-setting and volunteer mentors to overcome sedentary lifestyle in older adults at risk of cognitive decline. Alzheimer's and Dementia 2014;10:P124	Conference abstract
Lee RE, O'Connor DP, Smith-Ray R et al. Mediating effects of group cohesion on physical activity and diet in women of colour: health is power. American Journal of Health Promotion 2012;26(4):e116-25	Active control group (group meetings promoting good diet)
Lee RE, O'Connor DP, Smith-Ray et al. Mediating effects of group cohesion on physical activity and diet in women of colour: health is power. American Journal of Health Promotion 2006;26(4):e116-25	No PA outcomes
Lim, HJ. The effects of mode of walking exercise on cardiovascular disease risk factors and fitness level changes in the elderly. Unpublished master's thesis, Yonsei University, Seoul, Korea. 2008	Unavailable (MSc)
McAuley E, Courtenya KS, Rudolph DL et al. Enhancing exercise adherence in middle-aged males and females. Preventive Medicine 1994;23:498-506	Active control group (exercise including WG)
McAuley E, Blissmer B, Marquez DX et al. Social relations, physical activity and well-being in older adults. Preventive Medicine 2000;31:608-17	Active control group (stretching and toning for 6 months)
McAuley E, Jerome GJ, Elavsky S et al. Predicting long-term maintenance of physical activity in older adults. Preventive Medicine 2003;37:110-8	Active control group (stretching and toning for 6 months)
Minus-Grimes I, Frankson MA, Hanna-Mahase C. The impact of exercise on cognitive function in ambulatory elderly. American Geriatrics Society Annual Meeting 2013;S191:D24	Conference abstract
Mirghafourvand M, Mohammad Alizadeh Charandabi S, Nedjat S et al. Effects of aerobic exercise on quality of life in premenopausal and postmenopausal women: A randomized controlled trial. [Persian]. Iranian Journal of Obstetrics, Gynecology and Infertility 2014;17(114): 19-26	Unavailable
Negri C, Bacchi E, Morgante S, et al. Supervised walking groups to increase physical activity in type 2 diabetic patients. Diabetes Care. 2010;33(11):2333-5.	All participants have Diabetes Mellitus

Ozsahin AK, Bozkirli E, Bakiner OS et al. Compliance to walking type exercise among obese women without comorbidities. Turkiye Klinikleri Journal Medical Science 2013;33(3):814-9	Not WG intervention
Pahor M, Blair SN, Espeland M, et al. Effects of a physical activity intervention on measures of physical performance: Results of the lifestyle interventions and independence for Elders Pilot (LIFE-P) study. Journals of Gerontology Series A Biological Science and Medical Science. 2006;61(11):1157-65 Ip EH, Church T, Marshall SA et al. Physical activity increases gains in and prevents loss of physical function: Results from the Lifestyle Interventions and Independence for Elders Pilot Study. The Journals of Gerontology: Series A: Biological Sciences and Medical Sciences 2013;68A(4): 426-32	Not WG intervention
Palliard T, Lafont C, Costes-Salon MC et al. Effects of brisk walking on static and dynamic balance, locomotion, body composition, and aerobic capacity in ageing healthy active men. International Journal of Sports Medicine 2004;25(7): 539-46	Not WG intervention
Park J-H, Miyashita M, Takahashi M et al. Effects of low-volume walking programme and vitamin E supplementation on oxidative damage and health-related variables in healthy older adults. Nutrition & Metabolism 2013;10(38):1-9	No PA outcomes reported
Park JH, Park H, Lim ST et al. Effects of a 12-week healthy-life exercise program on oxidized low-density lipoprotein cholesterol and carotid intima-media thickness in obese elderly women. Journal of Physical Therapy Science 2015;27(5): 1435-9	Not WG intervention
Parkkari J1, Natri A, Kannus P et al. A controlled trial of the health benefits of regular walking on a golf course. American Journal of Medicine 2000;109(2):102-8	Not WG intervention
Reger-Nash B, Bauman A, Cooper L et al. Evaluating community-wide walking interventions. Evaluation and Program Planning 2006;29:251-9	Not explicitly WG interventions
Rogers TM. Effectiveness of a walking club and self-directed physical activity programme in increasing moderate intensity physical activity among African American females. University of Oregon, USA. 1997	Unavailable (PhD)
Rooks DS, Ransil BJ, Hayes WC. Self-paced exercise and neuromotor performance in community-dwelling older adults. Journal of ageing and Physiological Activity 1997;5:135-49	Active control group (resistance training)
Rosenberg DE, Kerr J, Sallis JF et al. Promoting walking among older adults living in retirement communities. Journal of Ageing and Physical Activity 2012;20(3):379-94	Not WG intervention

Salesi M, Rabiee SZ, Shikhani-Shahin H et al. Effect of a Walking Program on Metabolic Syndrome Indexes in Non-athlete Menopausal Women during 8 Weeks. Journal of Babol University of Medical Sciences 2014;16(10):68-74	No PA outcomes
Song M-S, Yoo Y-K, Choi C-H et al. Effects of Nordic walking on body composition, muscle strength and lipid profile in elderly women. Asian Nursing Research 2013;7:1-7	No PA outcomes
Staten LK, Scheu LL, Bronson D et al. Pasos Adelante: The effectiveness of a community-based chronic disease prevention programme. Preventing Chronic Disease, Public Health Research, Practice and Policy.2005;2(1):1-11	Pre-post design
Tak EC, van Uffelen JG, Mai JM et al. Adherence to exercise programs and determinants of maintenance in older adults with mild cognitive impairment. Journal of Ageing and Physical Activity 2012;20(1):32-46	Active control group (low intensity activity programme)
Takeda N, Oka K, Sakai K et al. The effects of a group-based walking programme on daily physical activity in middle-aged and older adults. International Journal of Sport and Health Science 2011;9:39-48	Active control group (easy exercises).
Zoeliner J, Connell C, Powers A et al. Does a six-month pedometer intervention improve physical activity and health among vulnerable African Americans? A feasibility study. Journal of Physical Activity and Health 2010;7:224-31	Pre-post design

Supplementary Table 3. Characteristics of included studies

Study, (country)	Study design	Participants	Setting	Intervention (duration)	Comparator	Physical activity outcomes reported	Quality of life and wellbeing outcomes reported	Follow up lengths
Inactive controls								
Avila 1994 @ (USA)	RCT	Latina women aged 18 or more, >20% overweight	Community volunteers	WG – 20 mins on 1 day per week (+ diet modification) (8 weeks)	Weekly cancer screening education for 8 weeks and invited for weight control classes after study	Yes	No	9 weeks (1 week post intervention) and 3 months after end of intervention
Fisher 2004 (USA)	Cluster RCT	Sedentary or inactive adults aged 65 and over and able to walk without assistance	Community volunteers	WG – up to 60 mins on 3 days per week (6 weeks) plus Health education and information programme sent monthly	Health education and information programme sent monthly	No	Yes	6 months (end of intervention)

Study, (country)	Study design	Participants	Setting	Intervention (duration)	Comparator	Physical activity outcomes reported	Quality of life and wellbeing outcomes reported	Follow up lengths
Gusi 2008 (Spain)	RCT	Moderately depressed, obese or overweight elderly women mean (SD) ages 71 (5) in intervention and 74 (6) in control groups	GP referrals	WG – 50 mins 3 days per week (6 months)	Usual care and fitness testing	No	Yes	6 months (i.e. at end of intervention)
Hamdorf 1999 (Australia)	RCT	Healthy older women aged 79-91	Community volunteers	WG – 5 up to 25mins on 2 days per week (26 weeks)	Usual activities (waiting list after 6 months)	Yes	Yes	6 months (i.e. at end of intervention)
Isaacs 2007 (UK)	RCT	Adults aged 40-74 with cardiovascular risk factors (raised cholesterol or BP, obesity, smoking, diabetes (13%), family history)	GP referrals	WG –choice from easy to hard walks on 2-3 days per week (10 weeks)	Advice only then waiting list	Yes	Yes	6 months (i.e. 3½ months after end of intervention) 1 year (i.e. 9½ months after end of intervention)

Study, (country)	Study design	Participants	Setting	Intervention (duration)	Comparator	Physical activity outcomes reported	Quality of life and wellbeing outcomes reported	Follow up lengths
Jancey 2008 (Australia)	Cluster RCT	Reasonably healthy insufficiently active older people aged 65-74	Population sample from random invitation via telephone number	WG – 10 up to 45 mins on 2 days per week (6 months)	No WG	Yes	No	6 months (i.e. at end of intervention)
Krieger 2009 (USA)	Cohort with historical controls	Walking group volunteers from the housing community aged 18 - >65 yrs (mode 45-64)	Public housing development of diverse and low income residents	WG up to 1 hour on 5 days per week (depending on participant capacity) (3 months)	High Point Housing community	Yes	No	3 months (i.e. at end of intervention)
Kriska 1986 (Pereira 1998) (USA)	RCT	Post-menopausal women, aged 50-65, free from physical handicaps	Recruitment method unclear	WG up to 3 miles on 2 days per week, plus encouraged to walk on their own (8 weeks) then continuing social walking group encouragement	Unclear	Yes	No	1 year and 2 years after start of trial (i.e. 44 weeks and 96 weeks post intervention)

Study, (country)	Study design	Participants	Setting	Intervention (duration)	Comparator	Physical activity outcomes reported	Quality of life and wellbeing outcomes reported	Follow up lengths
								10 years (Pereira 1998)
Lamb 2002 (UK)	RCT	Adults aged 40-70 years, with no serious medical problems	Random sample from GP practice lists.	Physiotherapist advice plus WG attendance encouraged for 1 year, choice of walks in groups or alone/with own family and friends	Physiotherapist advice but no specific WG encourage-ment	Yes	No	6 months 1 year (i.e. at end of intervention)
Maki 2012 (Japan)	RCT	Adults aged 65-80 yrs, healthy but at risk of mental decline	Community volunteers	WG – 90 mins on 1 day per week (3 months)	Educational lectures on food, nutrition and oral care	Yes	Yes	3 months (i.e. at end of intervention)
Moore-Harrison 2008 (USA)	RCT	Adults aged over 60, (mean age 71.5 (SD 8.1)) free from any illnesses aggravated by exercise	Community volunteers	WG – 10 up to 40 mins on 3 days per week (16 weeks)	Nutrition education then waiting list	No	Yes	4 months (i.e. at end of intervention)

Study, (country)	Study design	Participants	Setting	Intervention (duration)	Comparator	Physical activity outcomes reported	Quality of life and wellbeing outcomes reported	Follow up lengths
Palmer 1995 (USA)	RCT	Premenopausal women aged 29-50 without significant health problems and not highly physically fit	Community volunteers	WG – 20 up to 50 mins per session. Number of sessions per week not reported. (8 weeks)	Waiting list	Yes	No	8 weeks (i.e. at end of intervention)
Resnick 2002 (USA)	RCT	Sedentary older women (mean age 87 (3.1) in intervention or 89 (4.5) in control groups with MMSE score less than 20 and able to walk 50 ft or more	Retirement community	WG or walking alone – 20 mins on 3 days per week. (6 months)	Routine care	Yes	Yes	6 months (i.e. at end of intervention)
Takahashi 2013 (Japan)	Experimental study	Older adults aged 65-78, mostly physically inactive	Community volunteers	WG – 30-60 mins on 2 days per week (12 weeks)	Control (unspecified)	Yes	No	12 weeks (i.e. at end of intervention)
Walking alone controls								

Study, (country)	Study design	Participants	Setting	Intervention (duration)	Comparator	Physical activity outcomes reported	Quality of life and wellbeing outcomes reported	Follow up lengths
Cox 2008 (Australia)	RCT	Healthy sedentary women aged 50-70 yrs	Community volunteers	WG 30 mins on 3 days per week (6 months) then behavioural intervention to continue exercise in groups (6 months)	WG 30 mins on 3 days per week (6 months), then usual care with newsletters encouraging walking (6 months)	Yes	No	6 months and 1 year (i.e. at end of intervention)
Lee 2011 (South Korea)	Case control	Healthy middle-aged obese women aged 30 to 60 years (mean age 45 (intervention) and 47 (control)).	Public health centre	WG 1 hr on 3 days per week (12 weeks)	Monthly group workshops on health education plus walking alone plus encouraging text messages	Yes	No	12 weeks (i.e. at end of intervention)

Study, (country)	Study design	Participants	Setting	Intervention (duration)	Comparator	Physical activity outcomes reported	Quality of life and wellbeing outcomes reported	Follow up lengths
Nguyen 2002 (Canada)	Case control	Walking club members (mean age 54.6 (11.2)) and former walking club members (mean age 54.5 (11.7))	Community walking clubs	Current walking club members	Former walking club members	Yes	No	Not applicable
Thomas 2012 (Hong Kong)	Cluster RCT	Healthy people in community centres aged over 60 yrs	Community centres for older people	1. Pedometer – extra 3500 steps per day on 3-25 days/week 2. Buddy support – 30 mins on 3-5 days per week with a partner (12 months)	1. No pedometer 2. No buddy support	Yes	No	12 months (i.e. at end of intervention)

@ details from Blank et al (2012) (21)

Abbreviations: ft – feet, GP – general practice, hr – hour, mins – minutes, MMSE – Mini-Mental State Examination, RCT – randomised controlled trial, SD – standard deviation, UK – United Kingdom, USA – United States of America, WG – walking group, yrs - years

Supplementary Table 4. Quality assessment

Study	Study design	Selection biases	Performance biases	Attrition biases	Detection biases	Other issues	Overall risk of bias
Avila 1994[@]	RCT	Population representative of the source population. Intervention and comparator well described and appropriate, no allocation concealment	No blinding of investigators, exposure to intervention and comparison adequate, other interventions similar in both groups	Retention rate: 96% intervention; 82% control	Intention to treat (ITT) not reported, estimates of effect size not reported.	Small sample. Quality assessment from NICE Centre for Public Health Excellence Manual report	Medium
Cox 2008	Cluster RCT	Randomisation via computer-generated random numbers in blocks of 8. Stratified and matched for age and BMI. Allocation concealment unclear.	Unclear blinding of control participants. Unclear if controls met.	Retention rate at 6 months: 87% intervention; 76% control; at 12 months: 71% intervention; 69% control. Being older was significantly associated with retention.	ITT used for adherence outcome.	Unclear if intra-class correlation used for reporting of results	Low
Fisher 2004	Cluster RCT	Neighbourhoods randomly assigned by coin toss. Individual participants randomly	No blinding to intervention by investigators. Unclear blinding of participants. Probably	Retention rate 70% intervention group, unclear control group. No significant difference in socio-demographic	Unclear who monitored outcome results or	Unclear if intra-class correlation used for	Low

Study	Study design	Selection biases	Performance biases	Attrition biases	Detection biases	Other issues	Overall risk of bias
		selected from telephone lists.	no socialising in the control group.	characteristics or baseline quality of life.	whether they were blinded.	reporting of results	
Gusi 2008	RCT	Randomised by a random number table. Investigators did not know to which group each patient was referred prior to exercise prescription.	Blinding to intervention not possible. Probably no socialising in the control group.	Retention rate: 86% intervention; 81% control. Participants lost to follow up had a slightly higher probability of being moderately depressed.	Unclear who monitored outcome results or whether they were blinded. ITT reported.	Trial also included a cost-effective-ness analysis	Low
Hamdorf 1999	RCT	Randomised by coin toss. Patients matched by age, height and body mass.	Blinding to intervention not possible. Probably no socialising in the control group.	Retention rate: 75% intervention; 80% control. Reasons for dropping out two in control based on medical advice, three due to family commitments. In intervention two due to medical reasons, 1 due to overseas travel, and 3 due to family commitments.	Unclear who monitored outcome results or whether they were blinded.	Small sample	Medium
Isaacs 2007	RCT	Block randomisation of variable block sizes (3, 6 or	Unclear description of control group intervention. Blinding	Retention rate 60% at 6 months and 50% at 1 year	Outcome assessors not blinded.	Sample size calculation	Medium

Study	Study design	Selection biases	Performance biases	Attrition biases	Detection biases	Other issues	Overall risk of bias
		9). Good allocation concealment.	to intervention not possible. Probably no socialising in the control group.		Participants frequently revealed their assignment to assessors. ITT analysis.	fully reported.	
Jancey 2008	Cluster RCT	Unit of randomisation was neighbourhood, matched by Socioeconomic Index for Areas#*. Only those with entries in the local telephone directory were included.	Unclear description of control group intervention. Blinding to intervention not possible. Probably no socialising in the control group.	Retention rate: intervention 68%; controls 75%	Unclear if outcome assessment blinded. Unclear ITT.	Unclear if intra-class correlation used for reporting of results	High
Krieger 2009	Cohort	Participants non-randomly selected volunteers, so selection bias likely.	Controls were the housing community residents who completed a survey (n=155 from 1600 housing units)	Retention rate: 91%	Outcomes measured by self-report surveys	-	High
Kriska 1986 (Pereira 1998)	RCT	Methods of randomisation /	High proportion of those randomised to	Retention rate 100%	ITT reported	Research was still ongoing	High

Study	Study design	Selection biases	Performance biases	Attrition biases	Detection biases	Other issues	Overall risk of bias
		allocation concealment not given	walking did not comply (39%)			when paper published	
Lamb 2002	RCT	Participants randomly selected from GP practices, asked whether they would participate then randomised using remote randomisation service. Enrolling nurse unaware of allocation.	33% of those eligible attended the accompanied walks. Controls met once for advice. Blinding unclear	Retention rate: 73% intervention; 72% control. No significant difference in baseline characteristics between those lost to follow up and those who completed study	Outcomes measured blind to allocation	Sample size calculation given	Medium
Lee 2011	Case-control	Allocation to group by participant preference.	Control intervention was home-based plus monthly group workshops.	Retention rate 55% intervention, 45% control.	Unclear if outcome assessment blinded. Unclear ITT.	-	High
Maki 2012	RCT	Methods of randomisation / allocation concealment not given	Attendance rate during the intervention was 87.5%. Blinding unclear.	Retention rate: 88% intervention; 89% control.	ITT given. Investigators and outcome assessors 'were separated'	-	Medium

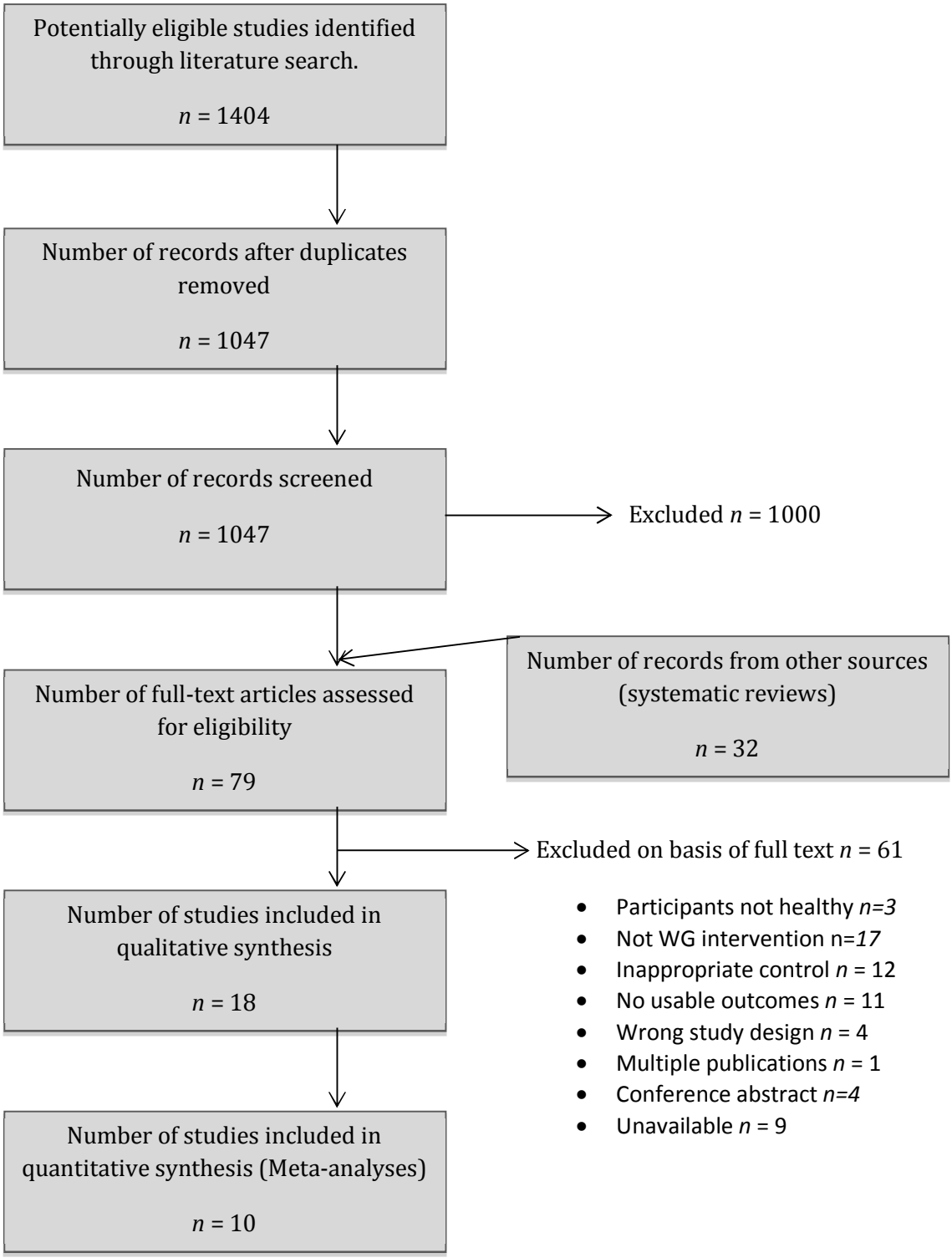
Study	Study design	Selection biases	Performance biases	Attrition biases	Detection biases	Other issues	Overall risk of bias
Moore-Harrison 2008	RCT	Methods of randomisation / allocation concealment not given. Control group participants knew they could join the walking intervention from the start of the trial	Unclear if controls were in groups. Blinding unclear.	Retention rate: 92% (retention by group NR).	Unclear if outcome assessment blinded. Unclear ITT.	Small sample	High
Nguyen 2002	Case Control	Historical control group.	Controls had been in groups before they left the walking project.	Retention rate: NR. States about 60% maintained involvement in the club for at least 6 months.	Unclear if outcome assessment blinded. Unclear ITT.	Some outcome results unclear.	High
Palmer 1995	RCT	Methods of randomisation / allocation concealment not given.	Unclear if control participants ever met when controls. (NB waiting list controls).	Retention rate: 100%	Unclear if outcome assessment blinded. Unclear ITT.	Small sample	High
Resnick 2002	RCT	Randomisation using SPSS package. Participants also randomly chosen from a pool of 120 eligible using	Intervention included multiple complex interventions in addition to walking in groups. Unclear if	Retention rate: 91% intervention; 78% control. The three individuals were lost due to illness.	Unclear if outcome assessment blinded. ITT	Small sample	High

Study	Study design	Selection biases	Performance biases	Attrition biases	Detection biases	Other issues	Overall risk of bias
		SPSS. Unclear if allocation concealment.	control participants ever met.		not conducted.		
Takahashi 2013	Experi-mental	Unclear whether participants assigned by random allocation or not. Unclear if allocation concealment	Unclear description of control group intervention.	Retention rate: 100%	Unclear if outcome assessment blinded.	Small sample	High
Thomas 2012	Cluster RCT	Computer-generated block randomisation in blocks of 4. Allocation concealment conducted.	Unclear if controls ever met.	Retention rate: 100%	Unclear if outcome assessment blinded. ITT conducted	Intra-class correlation used for reporting of results	Low

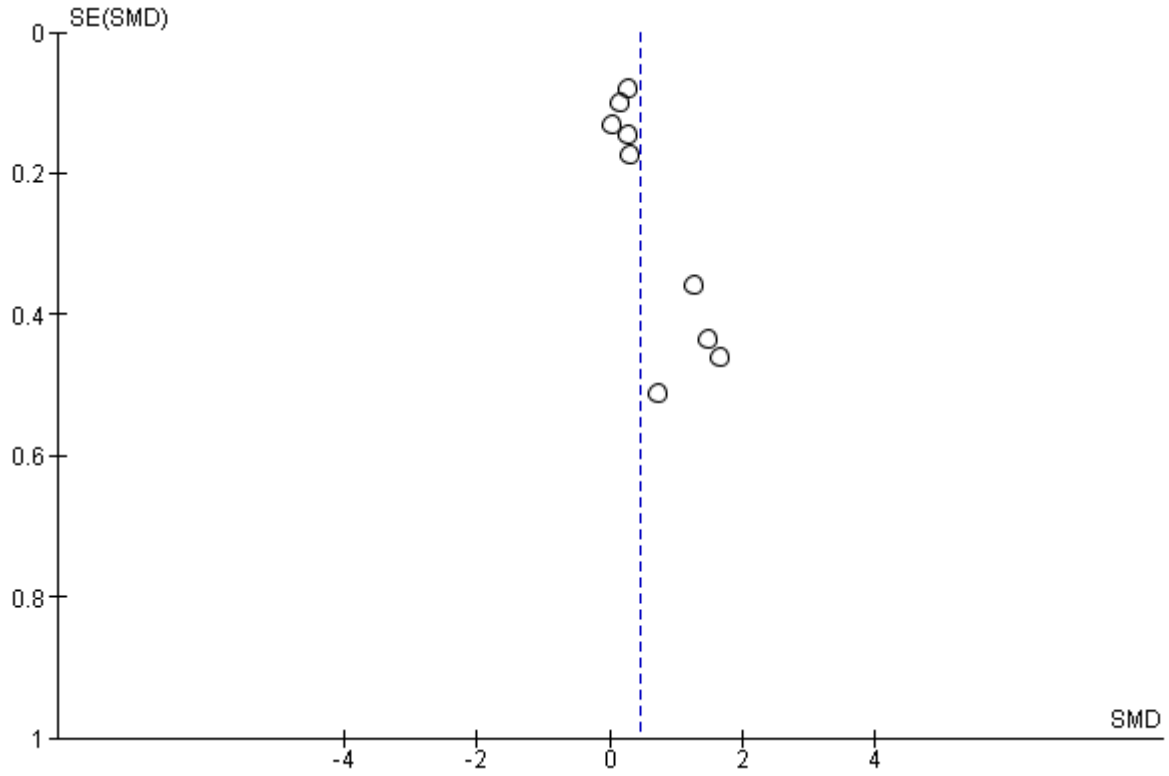
@ details from Blank et al (2012) (21)

SEIFA includes income, educational attainment, employment status and skill level of neighbourhood residents.

Supplementary Figure 1. PRISMA flow diagram



Supplementary Figure 2. Funnel plot



Axis labels - SMD – standardised mean difference, SE (SMD) – standard error of the standardised mean difference.

Supplementary Figure 3. Meta-analysis of proportions physically active in Set 1 (inactive controls)