Supplementary material

Table S1. Characteristics of excluded studies

Study	Reason(s) for exclusion
Alexander 2012 [1]	No outcome measure for uptake/completion
Altenburg 2015 [2]	No outcome measure for uptake/completion; Not enrolled on pulmonary rehabilitation
Avent 2015 [3]	Not a randomised trial
Casaburi 2005 [4]	No outcome measure for uptake/completion
Coultas 2005 [5]	No outcome measure for uptake/completion; Not enrolled on pulmonary rehabilitation
Coultas 2014 [6]	No outcome measure for uptake/completion; Not enrolled on pulmonary rehabilitation
Coultas 2016 [7]	No outcome measure for uptake/completion; Not enrolled on pulmonary rehabilitation
De Blok 2006 [8]	No outcome measure for uptake/completion
Deering 2011 [9]	No outcome measure for uptake/completion
De Godoy 2003 [10]	No outcome measure for uptake/completion
Duiverman 2008 [11]	No outcome measure for uptake/completion
Duiverman 2011 [12]	No outcome measure for uptake/completion
Fan 2008 [13]	Compared different pulmonary rehabilitation programmes
Garrod 2000 [14	No outcome measure for uptake/completion
Graves 2010 [15]	Not a randomised trial
Haugen 2007 [16]	No outcome measure for uptake/completion
Kawagoshi 2015 [17]	No outcome measure for uptake/completion; Not enrolled on pulmonary rehabilitation
Kesten 2008 [18]	No outcome measure for uptake/completion
Maa 1997 [19]	No outcome measure for uptake/completion
Mador 2005 [20]	No outcome measure for uptake/completion
Marquese 2015 [21]	No outcome measure for uptake/completion
Mazzoleni 2014 [22]	No outcome measure for uptake/completion
Ng 1999 [23]	No outcome measure for uptake/completion
Novitch 2013 [24]	No outcome measure for uptake/completion
Puente-Maeestu 2000 [25]	No outcome measure for uptake/completion
Petty 2006 [26]	No outcome measure for uptake/completion; Not enrolled on pulmonary rehabilitation
Ringbaek 2013 [27]	No outcome measure for uptake/completion
Rodgers 2014 [28]	No outcome measure for uptake/completion
Sharifibad 2010 [29]	No outcome measure for uptake/completion
Song 2014 [30]	No outcome measure for uptake/completion
Sridhar 2008 [31]	No outcome measure for uptake/completion
Steele 2008 [32]	No outcome measure for uptake/completion
Tasdemir 2015 [33]	No outcome measure for uptake/completion
Van Gestel 2012 [34]	No outcome measure for uptake/completion
Vivodtzev 2006 [35]	No outcome measure for uptake/completion
Zakrisson 2011 [36]	No outcome measure for uptake/completion; Not enrolled on pulmonary rehabilitation
Zanotti 2012 [37]	No outcome measure for uptake/completion
Zwar 2012 [38]	No outcome measure for uptake/completion

Table S2. Example search strategy of a bibliographic database (Medline)

	Search term	Field
1	Lung diseases, Obstructive	MH
2	Pulmonary Disease, Chronic Obstructive	MH (explode)
3	COPD	TX
4	COAD	TX
5	COBD	TX
6	AECB	TX
7	emphysema*	TX
8	Chronic N3 bronchiti*	TX
9	obstruct* N3 airflow* OR airway* OR bronch* OR lung* OR pulmonary OR respirat*	TI, AB
10	1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9	
11	Exercise therapy	MH (explode)
12	Activities of Daily Living	MH (explode)
13	Rehabilitation research	MH
14	Physical and rehabilitation medicine	MH (explode)
15	Physical fitness	MH
16	Exercise Movement techniques	MH (explode)
17	Physical endurance	MH
18	Telerehabilitation	MH
19	Rehabilitat*****	TX
20	11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19	
21	Health Behavior	MH (explode)
22	adherence	TX
23	attendance	TX
24	completion	TX
25	compliance	TX
26	cooperation	TX
27	uptake	TX
28	graduation	TX
29	21 OR 23 OR 24 OR 25 OR 26 OR 27 OR 28	
30	Randomised Controlled Trials as Topic	MH (explode)
31	Random allocation	MH
32	Double-blind method	MH
33	Single-blind method	MH
34	randomised OR randomized	AB, TI
35	Randomly allocated	AB, TI
36	trial	AB, TI
37	groups	AB,TI
38	allocated N2 random*	AB, TI
39	placebo	AB, TI
40	30 OR 31 OR 32 OR 33 OR 34 OR 35 OR 36 OR 37 OR 38 OR 39	
41	10 AND 20 AND 29 AND 40	

References (Excluded studies)

1 Alexander JL, Wagner CL. Is harmonica playing an effective adjunct therapy to pulmonary rehabilitation? *Rehabil Nursing*. 2012; 37: 207–12.

2 Altenburg WA, ten Hacken NHT, Bossenbroek L, Kerstjens HAM, de Greef MHG, Wempe JB. Short- and long-term effects of a physical activity counselling programme in COPD: a randomized controlled trial. *Respir Med* 2015; 109: 112–121.

3 Avent TC, Colclough RC, Edgar RG, Owen C, Swindells KH, Gompertz S. Do structured exercise classes for inpatients with COPD increase community pulmonary rehabilitation referral and completion rates? *Thorax* 2015; 70: 144–5.

4 Casaburi R, Kukafka D, Cooper CB, Witek TJ, Jr., Kesten S. Improvement in exercise tolerance with the combination of tiotropium and pulmonary rehabilitation in patients with COPD. *Chest.* 2005; 127 :809–17.

5 Coultas D, Frederick J, Barnett B, Singh G, Wludyka P. A randomized trial of two types of nurse-assisted home care for patients with COPD. *Chest* 2005; 128 :2017–2024.

6 Coultas DB, Jackson BE, Russo R, et al. Six month results of a behavioral self-management intervention to enhance lifestyle physical activity among patients with COPD. *American Journal of Respiratory and Critical Care Medicine* 2014; 189: A3643.

7 Coultas D, Bradford E, Russo R, et al. A Lifestyle Physical Activity Intervention for Patients with COPD: A Randomized Control Trial. Ann *Am Thorac Soc* 2016; 13, 617–626.

8 de Blok BMJ, de Greef MHG, ten Hacken NHT, Sprenger SR, Postema K, Wempe JB. The effects of a lifestyle physical activity counseling program with feedback of a pedometer during pulmonary rehabilitation in patients with COPD: a pilot study. *Patient Educ And Couns*. 2006; 61: 48–55.

9 De Godoy DV, De Godoy RF. A randomized controlled trial of the effect of psychotherapy on anxiety and depression in chronic obstructive pulmonary disease. *Arch Phys Med Rehabil.* 2003; 84: 1154–7.

10 Deering BM, Fullen B, Egan C, et al. Acupuncture as an adjunct to pulmonary rehabilitation. *J Cardiopulm Rehabil Prev* 2011; 31:392–399.

11 Duiverman ML, Wempe JB, Bladder G, et al. Nocturnal non-invasive ventilation in addition to rehabilitation in hypercapnic patients with COPD. *Thorax* 2008; 63:1052–1057.

12 Duiverman ML, Wempe JB, Bladder G, et al. Two-year home-based nocturnal noninvasive ventilation added to rehabilitation in chronic obstructive pulmonary disease patients: a randomized controlled trial. *Respiry Res* 2011; 23: 1-10.

13 Fan VS, Giardino ND, Blough DK, et al. Costs of pulmonary rehabilitation and predictors of adherence in the National Emphysema Treatment Trial. *COPD* 2008; 5:105–16.

14 Garrod R, Mikelsons C, Paul EA, Wedzicha JA. Randomized controlled trial of domiciliary noninvasive positive pressure ventilation and physical training in severe chronic obstructive pulmonary disease. *Am J Respir Crit Care Med* 2000;162: 1335–1341.

15 Graves J, Sandrey V, Graves T, Smith DL. Effectiveness of a group opt-in session on uptake and graduation rates for pulmonary rehabilitation. *Chron Respir Dis*. 2010; 7: 159–64.

16 Haugen TS, Stavem K. Rehabilitation in a warm versus a colder climate in chronic obstructive pulmonary disease: a randomized study. *J Cardiopulmy Rehabil Prev* 2007; 27: 50–56.

17 Kawagoshi A, Kiyokawa N, Sugawara K, et al. Effects of low-intensity exercise and home-based pulmonary rehabilitation with pedometer feedback on physical activity in elderly patients with chronic obstructive pulmonary disease. *Respir Med* 2015; 109: 364–371.

18 Kesten S, Casaburi R, Kukafka D, Cooper CB. Improvement in self-reported exercise participation with the combination of tiotropium and rehabilitative exercise training in COPD patients. *Intl J Of Chron Obstruct Pulmon Dis* 2008; 3: 127–36.

19 Maa SH, Gauthier D, Turner M. Acupressure as an adjunct to a pulmonary rehabilitation program. *J Cardiopulm Rehabil* 1997;17:268-276.

20 Mador MJ, Deniz O, Aggarwal A, Shaffer M, Kufel TJ, Spengler CM. Effect of respiratory muscle endurance training in patients with COPD undergoing pulmonary rehabilitation. *Chest* 2005; 128:1216–1224.

21 Marquese A, Jacome C, Cruz J, Gabriel R, Brooks D, Figueiredo D. Family-based psychosocial support and education as part of pulmonary rehabilitation in COPD: A randomized controlled trial. *Chest* 2015; 147: 662–72.

22 Mazzoleni S, Montagnani G, Vagheggini G, et al. Interactive videogame as rehabilitation tool of patients with chronic respiratory diseases: preliminary results of a feasibility study. *Respir Med* 2014; 108: 1516–1524.

23 Ng JYY, Tam SF, Yew WW, Lam WK. Effects of video modeling on self-efficacy and exercise performance of COPD patients. *Soc Behav Personal* 1999; 27: 475–486.
24 Novitch R, Sirey JA, Raue P, et al. A targeted intervention for depression initiated during pulmonary rehabilitation improves adherence to exercise, mood and dyspnea after acute exacerbation of COPD (AECOPD). *Eur Respir J* 2013; 42: P3577
25 Puente-Maestu L, Sánz ML, Sánz P, Cubillo JM, Mayol J, Casaburi R. Comparison of effects of supervised versus self-monitored training programmes in patients with chronic obstructive pulmonary disease. *Eur Respir J* 2000; 15: 517–25.
26 Petty TL, Dempsey EC, Collins T, et al. Impact of customized videotape education on quality of life in patients with chronic obstructive pulmonary disease. *J Cardiopulm Rehabil* 2006; 26: 112–7.
27 Ringbaek T, Martinez G, Lange P. The long-term effect of ambulatory oxygen in normoxaemic COPD patients: a randomised study. *Chron Respir Dis* 2013; 10: 77–84.
28 Rodgers W, Selzler A-M, Haennel R, Holm S, Wong E, Stickland M. An experimental assessment of the influence of exercise versus social implementation intentions on physical activity during and following pulmonary rehabilitation. *J Behav Med* 2014; 37:480–90.
29 Sharifabad MA, Hurewitz A, Spiegler P, Bernstein M, Feuerman M, Smyth JM. Written Disclosure Therapy for Patients With Chronic Lung Disease Undergoing Pulmonary Rehabilitation. *J Cardiopulmon Rehabil Prev* 2010; 30: 340–345.
30 Song HY, Yong SJ, Hur HK. Effectiveness of a brief self-care support intervention for pulmonary rehabilitation among the elderly patients with chronic obstructive pulmonary disease in Korea. *Rehabil Nursing* 2014; 39: 147–56.
31 Sridhar M, Taylor R, Dawson S, Roberts NJ, Partridge MR. A nurse led intermediate care package in patients who have been hospitalised with an acute exacerbation of chronic obstructive pulmonary disease. *Thorax.* 2008; 63: 194–200.
32 Steele BG, Belza B, Cain KC, et al. A randomized clinical trial of an activity and exercise adherence intervention in chronic pulmonary disease. *Arch Phys Med Rehabil*. 2008; 89: 404–12.
33 Tasdemir F, Inal-Ince D, Ergun P, et al. Neuromuscular electrical stimulation as an adjunct to endurance and resistance training during pulmonary rehabilitation in stable chronic obstructive pulmonary disease. *Expert Rev Respir Med* 2015; 9: 493–502.
34 Van Gestel AJR, Kohler M, Steier J, Teschler S, Russi EW, Teschler H. The effects of controlled breathing during pulmonary rehabilitation in patients with COPD. *Respiration* 2012; 83: 115–124.
35 Vivodtzev I, Pepin JL, Vottero G, et al. Improvement in quadriceps strength and dyspnea in daily tasks after 1 month of electrical stimulation in severely deconditioned and malnourished COPD. *Chest* 2006; 129:1540–1548.
36 Zakrisson A-B, Engfeldt P, Hägglund D, et al. Nurse-led multidisciplinary programme for patients with COPD in primary health care: a controlled trial. *Prim Care Respir J* 2011; 20: 427–33.
37 Zanotti E, Berardinelli P, Bizzarri C, et al. Osteopathic manipulative treatment effectiveness in severe chronic obstructive pulmonary disease: a pilot study. *Complement Ther Med* 2012; 20: 16–22.
38 Zwar NA, Hermiz O, Comino E, et al. Care of patients with a diagnosis of chronic obstructive pulmonary disease: a cluster randomised controlled trial. *Med J Aust* 2012; **197**: 394–8.