

Appendix 6: Table of Systematic Reviews Evaluating the Effect of Self Management in COPD

Authors	Design	Studies included	Participant n=	Aims	Intervention	HRQoL	All-cause hospitalisations	Respiratory-related hospitalisations	Mortality	ED presentations	Anxiety & depression	Dyspnoea	6MWD	Respiratory-related mortality	Medication use	Urgent healthcare
Dickens 2014	RCT	32 studies, database inception-2013	3941	To examine the characteristics of complex interventions intended to reduce the use of urgent and unscheduled healthcare among people with COPD	Multiple components and/or professionals, individual, group, phone or computer. Including education, rehabilitation, psychological therapy, social intervention, organisational intervention (e.g. collaborative care or case management), psychological drug trials. Simple interventions, e.g. new treatment for underlying long-term condition, compared to treatment as usual excluded											😊
Majothi 2015	RCT	9 studies, Moderate-severe COPD, database inception-2012	1466	To evaluate the effect of COPD self-management following admission to hospital	1+ components commonly included in self-management interventions, e.g. action plans, exercise, education, inhaler technique, bronchial hygiene and breathing techniques, stress management and relaxation, nutritional programs, patient empowerment, support groups and telecare, provided in hospital or community setting with a usual care, control, sham intervention or other self-management intervention comparator.	😊	😊		😊	😊						
Cannon 2016	RCT	25 studies, 1990-2016	4082	To analyse the outcome of self-management RCTs and their impact upon COPD patients' health outcomes using meta-analysis	Self-management intervention including at least 4 of the following: Exacerbation action plan, COPD education, medication information, management of exacerbations, management of stress and/or anxiety, nutritional guidance, exercise program/information, or managing a healthy lifestyle.	😊	😊				😊		😊			
Howcroft 2016	RCT, quasi RCT	7 studies, Database inception - 2015	1550	Compare COPD exacerbation action plans with a single short educational component + ongoing support directed at use of action plan	Action plan with a single educational component of short duration allowing time for the clinician to personalise plan. Ongoing support delivered by phone or direct contact. Studies with broader self-management support interventions, e.g. education in multiple sessions over a longer period or exercise programmes, with or w/out an action plan were excluded. Active intervention was compared to 'usual care'.	😊			😊	😊	😊				😊	
Jolly 2016	RCT	173 studies, database inception-2012	n/a	To identify the most effective components of interventions to facilitate self-management of health care behaviours	Include 3+ components e.g. structured group-based PR programs (to teach self-management skills); educational self-management interventions delivered in an outpatient setting or at home, sometimes with telephone follow-up; integrated disease management with multidisciplinary input and often some element of monitoring by health professionals; exercise-only interventions (with some dyspnoea management) and respiratory muscle training using threshold devices.	😊	😊									
Jonkman 2016	RCT	14 studies, 1985-2013	3282	Determine if self-management programs were associated with better outcomes and if any subgroups benefit more	Interventions providing information to patients and including 2+ of: stimulation of sign/symptom monitoring; education in problem solving skills, i.e. self-treatment of acute exacerbations and stress/symptom management; smoking cessation; and stimulation of medical treatment adherence; physical activity; or improving dietary intake. Components aimed at enhancing the patient's active role and responsibility.	😊	😊	😊	😊							
Lenferink 2017	RCT	22 studies, 1995-2017	3854	To evaluate the efficacy of COPD-specific self-management interventions that include an action plan for exacerbations	Must include a written action plan for AECOPD and an iterative process between participant and healthcare provider(s) in which feedback was provided.	😊	😊	😊	😊	😊		😊		😞		

Newham 2017	RCT	26 RCTs identified from 11 systematic reviews	3,518 (1,827 intervention, 1,691 control)	To summarize the current evidence base surrounding the effectiveness of self-management interventions for improving HRQoL in people with COPD.	Intervention descriptions were coded for behaviour change techniques (BCTs) that targeted self-management behaviours to address 1) symptoms, 2) physical activity, and 3) mental health. Comparator was usual care.	😊				😊						
Long 2017	RCT	10 studies, database inception-August 2018	1,959	To systematically review the evidence for health coaching as an intervention to improve health-related quality of life (HRQoL) and reduce hospital admissions in people with chronic obstructive pulmonary disease (COPD)	Intervention must include evidence of goal setting, motivational interviewing techniques, and COPD-related health education. Interventions that do not have clear evidence of all three components will be excluded. The intervention must be delivered by a qualified HCP, over a minimum of two sessions, either face to face, by telephone, online, email, tablet, smartphone, or a combination of these methods. Interventions that include group, instead of individual, coaching sessions will be excluded. Trials must consist of one group that received the health coaching intervention and one group that received either treatment as usual, wait-list control, or a no intervention control group.	😊	😊	😊							😊	
Jolly 2018	RCT	12 studies, database inception-2012	10,647	To evaluate whether self-management intervention in COPD patients recruited from primary care lead to improved health-related quality of life, improved health outcomes and reduced health care utilisation.	Interventions were heterogeneous by duration (one month to at least 2 years); provider (GPs, nurse practitioners, medical assistants, respiratory physician nurses, health psychologists and trained peers, or a combination); and focus (exacerbation management and responding to participants self-management queries or very comprehensive programmes including information about educational materials, physical activity advice, smoking cessation, breathing and medication management). The control arm of studies was most frequently usual care, with two studies providing information booklets as part of the control arm and one using usual care with an assessment of the patients' health status every 2 months.	😊				😊						
Aranburu-Imatz 2022	Systematic review and meta-analysis of observational studies (case-control, cohort and cross-sectional) or intervention study (randomised or non-randomised)	48 studies met the inclusion criteria for qualitative analysis, of which 25 were considered for meta-analysis, 2009-2021	5,215 patients in 48 studies	To analyse the effect of hospital or community nurse-led interventions in the follow-up and management of COPD patients in terms of mental, physical, and clinical status	Nurse-led intervention. Heterogeneity was observed as regards the type of interventions and scope of care.	😊	😊			😊		😊				
Schrijver 2022	RCTs and cluster RCTs	27 studies, 1995-2022	6,008	To evaluate the effectiveness of COPD self-management interventions compared to usual care in terms of health-related quality of life (HRQoL), respiratory-related hospital admissions, respiratory-related mortality and all-cause mortality.	Self-management interventions compared to usual care.	😊		😊	😊					😊		

Table 😊= improved, 😐= no change, 😞= worsened., grey shading indicates outcome was not analysed. HRQoL= health-related quality of life, 6MWD= 6-minute walk distance, RCT= randomised controlled trial, CCT= controlled clinical trials, COPD= chronic obstructive pulmonary disease, ED= emergency department, PR = pulmonary rehabilitation