

Self-management in people with COPD



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Wat is a self-management intervention?

- > Structured intervention aimed at improvement in self-health behaviours and self-management skills
- > Includes training with feedback to improve:
 - problem solving
 - decision making
 - resource utilisation
 - formatting patient-provider partnerships
 - action planning
 - self-tailoring

Conceptual definition of a COPD self-management intervention

A COPD self-management intervention is structured but personalised and often multi-component, with goals of motivating, engaging and supporting the patients to positively adapt their health behaviour(s) and develop skills to better manage their disease.

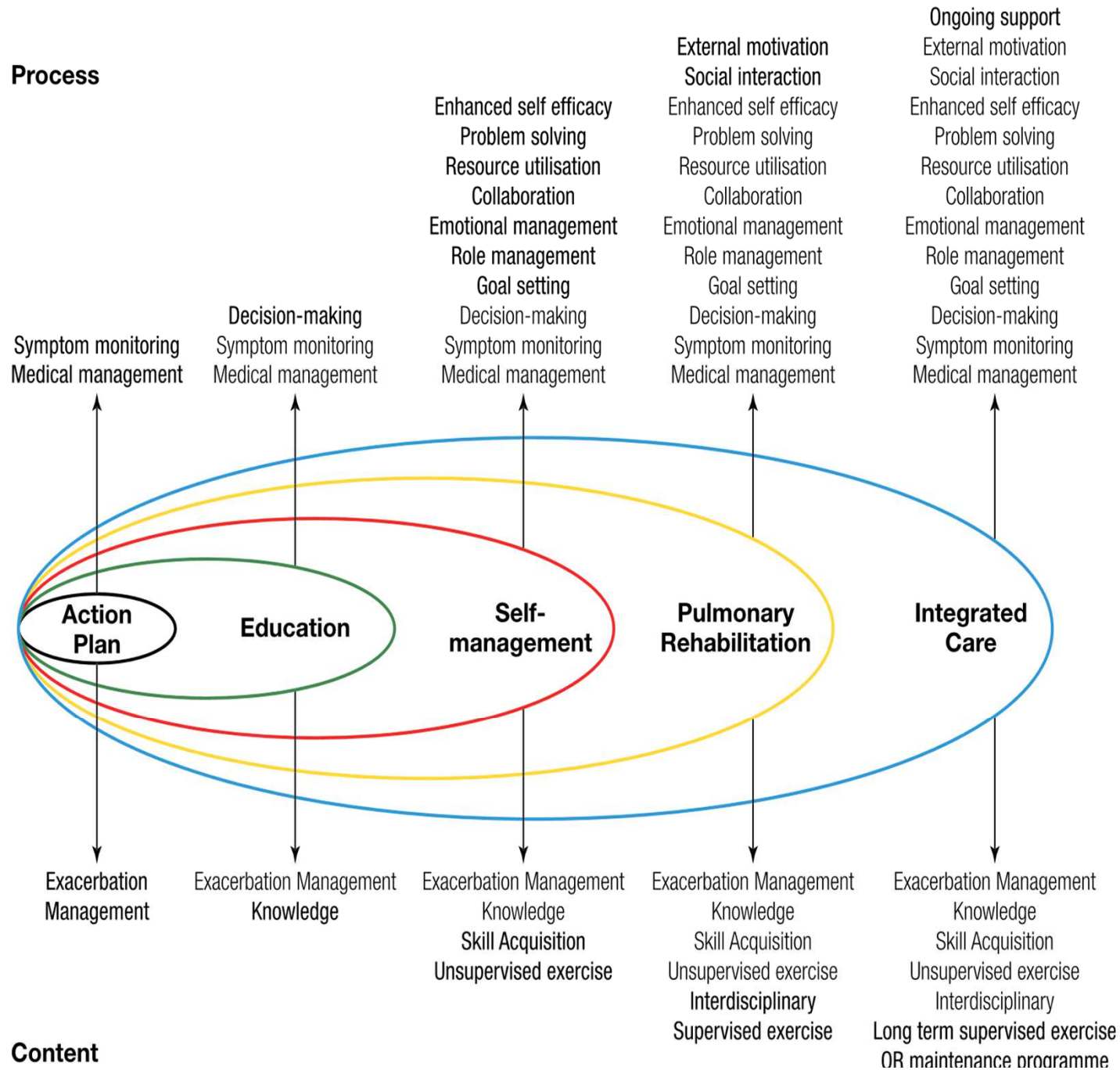
The ultimate goals of self-management are: a) optimising and preserving physical health; b) reducing symptoms and functional impairments in daily life and increasing emotional well-being, social well-being and quality of life; and c) establishing effective alliances with healthcare professionals, family, friends and community.

The process requires iterative interactions between patients and healthcare professionals who are competent in delivering self-management interventions. These patient-centred interactions focus on: 1) identifying needs, health beliefs and enhancing intrinsic motivations; 2) eliciting personalised goals; 3) formulating appropriate strategies (e.g. exacerbation management) to achieve these goals; and if required 4) evaluating and re-adjusting strategies. Behaviour change techniques are used to elicit patient motivation, confidence and competence. Literacy sensitive approaches are used to enhance comprehensibility.



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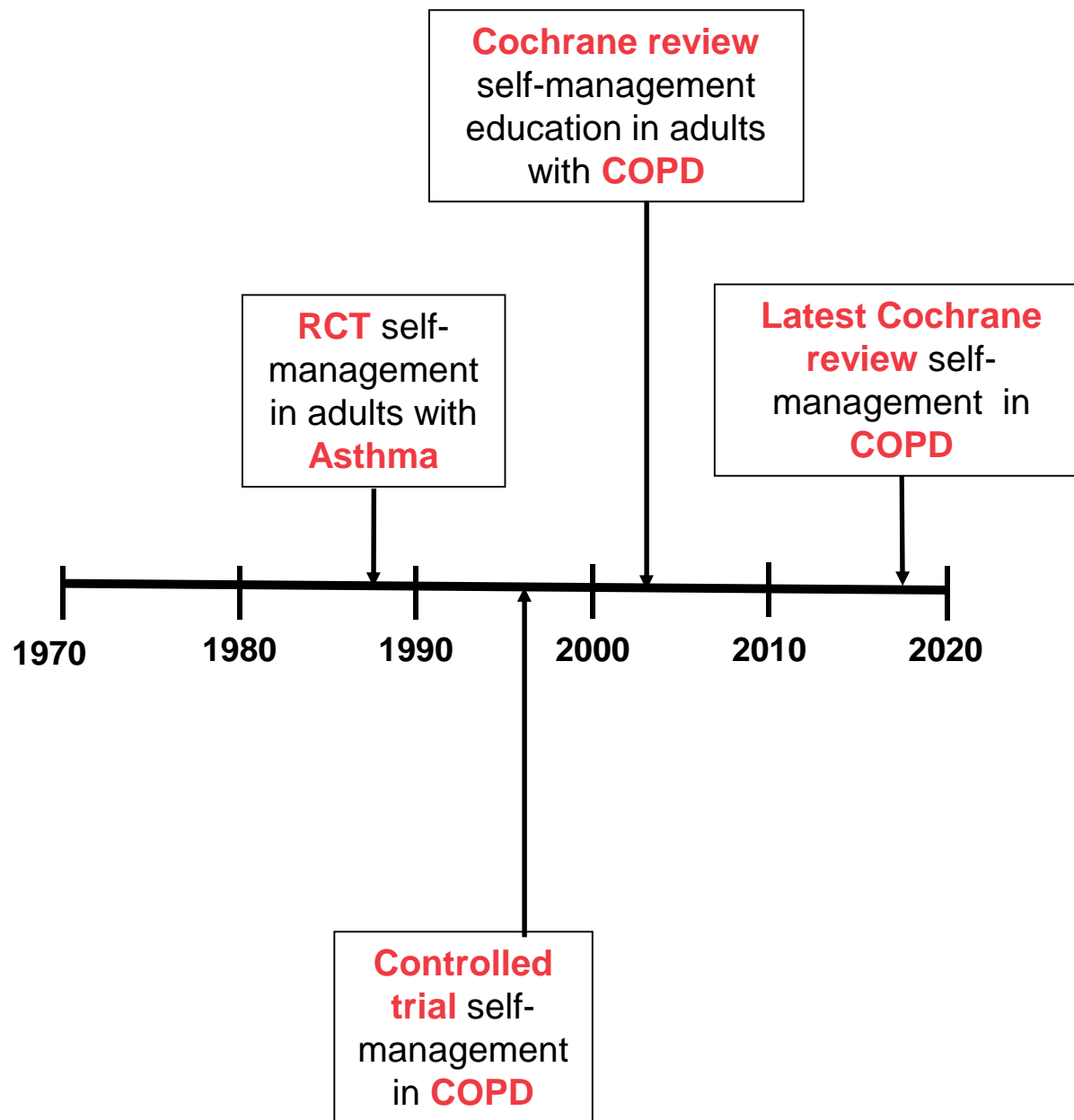
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Self-management ~~education~~

Patient education is an indispensable component of self-management, however education alone is insufficient to achieve the goal of behavioural change





Reduction of Hospital Utilization in Patients With Chronic Obstructive Pulmonary Disease

A Disease-Specific Self-management Intervention

Jean Bourbeau, MD; Marcel Julien, MD; François Maltais, MD; Michel Rouleau, MD; Alain Beaupré, MD; Raymond Bégin, MD; Paolo Renzi, MD; Diane Nault, RN; Elizabeth Borycki, RN; Kevin Schwartzman, MD; Ravinder Singh, MSc; Jean-Paul Collet, MD; for the Chronic Obstructive Pulmonary Disease axis of the Respiratory Network, Fonds de la Recherche en Santé du Québec

Self-management intervention:

Self-recognition of COPD exacerbations, action plans for COPD exacerbations, iterative process with feedback on actions by case-manager, education regarding COPD, and an exercise component

Significant outcomes after 12 months:

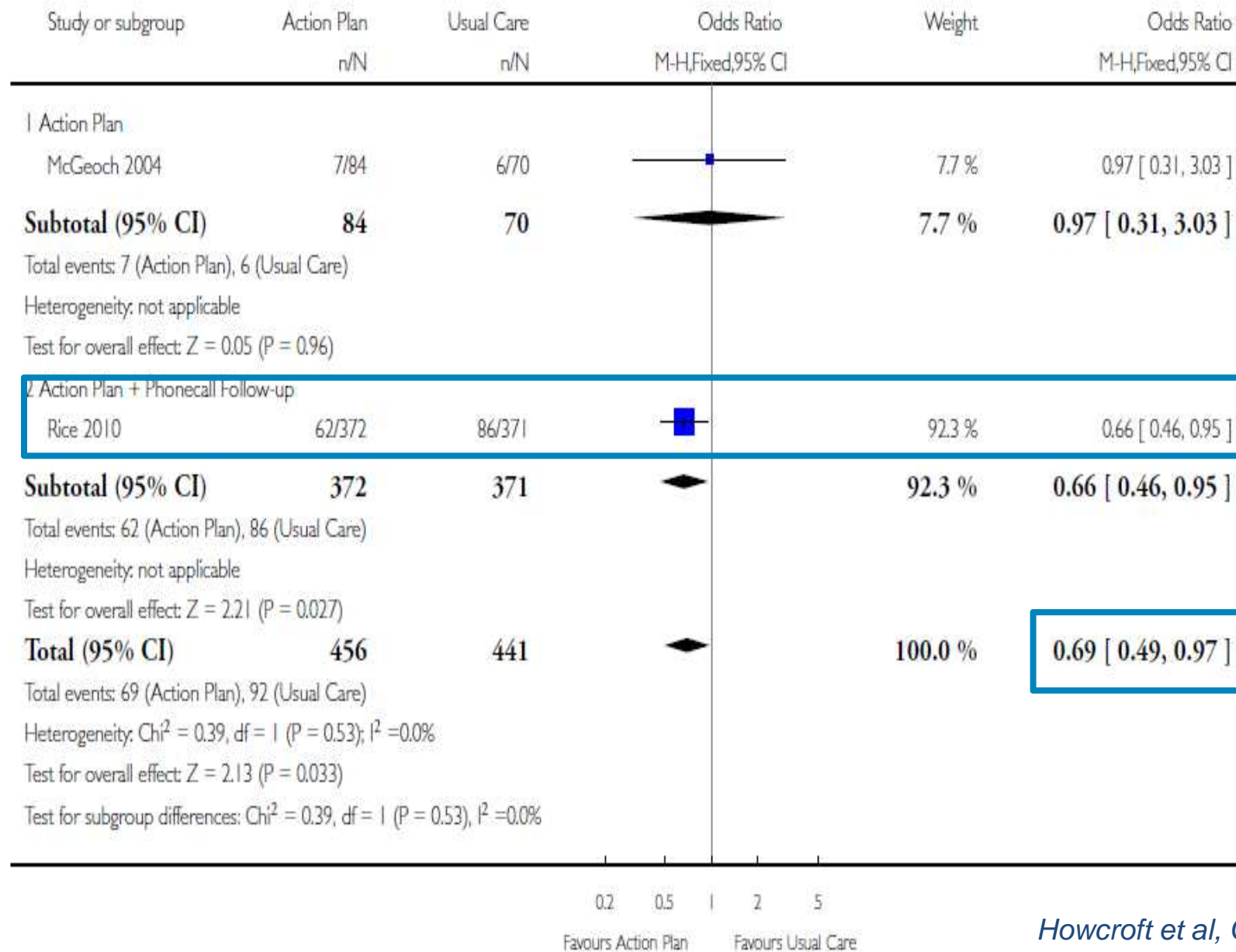
- ↓ Respiratory hospitalisations: 39.8%
 - ↓ Emergency department visits: 41.0%
 - ↓ Unscheduled physician visits: 58.9%
- Improvements QoL impact score

Cochrane reviews

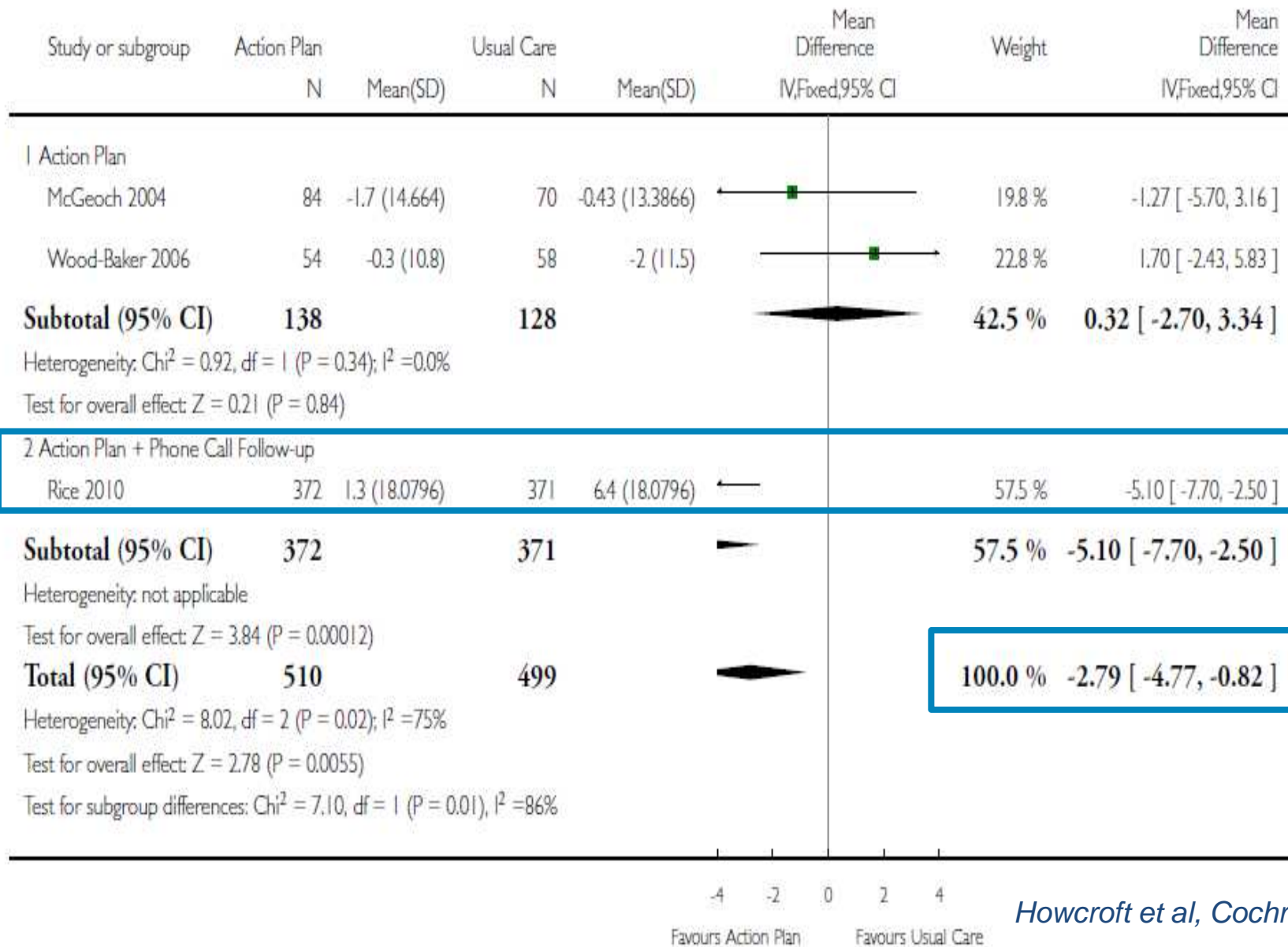
COPD self-management / COPD action plans

Study	N total	SGRQ-total	N	Hospital admissions	N
Monninkhof (2002) COPD Self-management	9	No effect	2	No effect	4
Turnock (2005) Use of an AP in COPD	3	No effect	2	No effect	2
Effing (2007) COPD Self-management (update)	14	Improved	7	Reduction - Respiratory related	7
Walters (2010) AP with limited patient education	5	No effect	4	No effect	2
Zwerink (2014) COPD Self-management (update)	23	Improved	10	Reduction - Respiratory related - All cause	9
Howcroft (2016) AP with limited patient education (update)	7	Improved	3	Reduction - All cause	2
Lenferink (2017) COPD Self-management including AP	22	Improved	10	Reduction - Respiratory related	14

HOSPITALISATIONS



Quality of Life - SGRQ





What components are essential?

- > COPD exacerbation action plan
 - Included in most studies
 - Positive effects in individual RCT

Zwerink et al. Cochrane 2014
Lenferink et al. Cochrane 2017
Effing et al. Thorax 2009



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- > Smoking cessation component

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- Quality of life (+)
- Respiratory-related hospitalisations (-)

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- > Number of behavioural change techniques (-)

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- > Number of behavioural change techniques (-)

Lenferink et al. Cochrane 2017

- > Use of an exercise component (-)

Lenferink et al. Cochrane 2017



Individual Patient Data analyses

COPD self-management interventions lead to:

- ↓ respiratory-related hospitalisations
- ↓ all cause hospitalisations
- Modest effect QoL

Duration of a self-management intervention is linked to reduction in all-cause hospitalisations



COPD self-management interventions effective in all patients?

- > Male patients and those having a high body mass index had better outcomes for **COPD-related hospitalisations** at 6 months
- > Under patients with a high body mass index there was less **mortality** at 6 months
- > Patients with severe lung function had better **all-cause hospitalisation** outcomes at 6 months
- > Patients with moderate self-efficacy had better **COPD-related hospitalisation** outcomes at 12 months



COPD self-management interventions effective in all patients?

- > 42% of the intervention group participants were successful self-managers'
 - Patients that started treatment after a recorded symptom deterioration

Bucknall et al. BMJ 2012

- > 40% of the intervention patients were successful self-managers
 - Good action plan adherence → quicker recovery from an exacerbation

Bischoff et al. Thorax 2011



COPD self-management interventions effective in all patients?

- > Patients monitored in a COPD clinic: up to 60% of the patients had the ability to properly self-manage acute exacerbations
- > Unknown how long patients should be trained before they are able to manage their exacerbations properly
- > Adherence to self-management instructions takes time



Summary evidence

- > Self-management interventions are effective on group level
- > Self-management interventions do not work for all patients
- > Exacerbation action plans should be offered with training
- > Predictive factors for success are still unclear
- > Longer interventions do better



Self-management interventions in practice



Health Literacy

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Health literacy

- > Just over a third of patients with low literacy are able to show how many tablets should be taken when given a written label containing the instruction

'Take two tablets by mouth twice daily'

Davis et al. Ann Intern Med 2006

- > Single question may be useful for detecting patients with inadequate health literacy:

"How confident are you filling out medical forms by yourself?"

Chew et al. J Gen Intern Med 2008

- > Use of a simple single step action plan or pictograms in patients in with low literacy



Co-morbidities



Taking into account co-morbidities

- > COPD frequently co-exists with other diseases

Barnes et al. ERJ 2009
Vanfleteren AMCCM 2013

- > ‘One size fits all’ approach that focuses solely on traditional markers of respiratory disease is probably inadequate for patients with (severe) comorbidities



Training of health care providers



Training of health care providers

- > Aim of any self-management program should be behavioural change
- > Health care provider delivering the self-management intervention should be trained
- > Trial fidelity – quality control



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