

Behaviour change interventions for physical activity in adults with chronic obstructive pulmonary disease (COPD); protocol for a systematic review

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Introduction:

Improving physical activity in community dwelling people with COPD in challenging. To better understand what behaviour change strategies are effective in these patients a systematic mapping of behaviour change interventions against a theoretical framework is needed.

Aims:

This systematic review aims to evaluate the effectiveness of behaviour change interventions to improve physical activity in community dwelling adults with COPD.

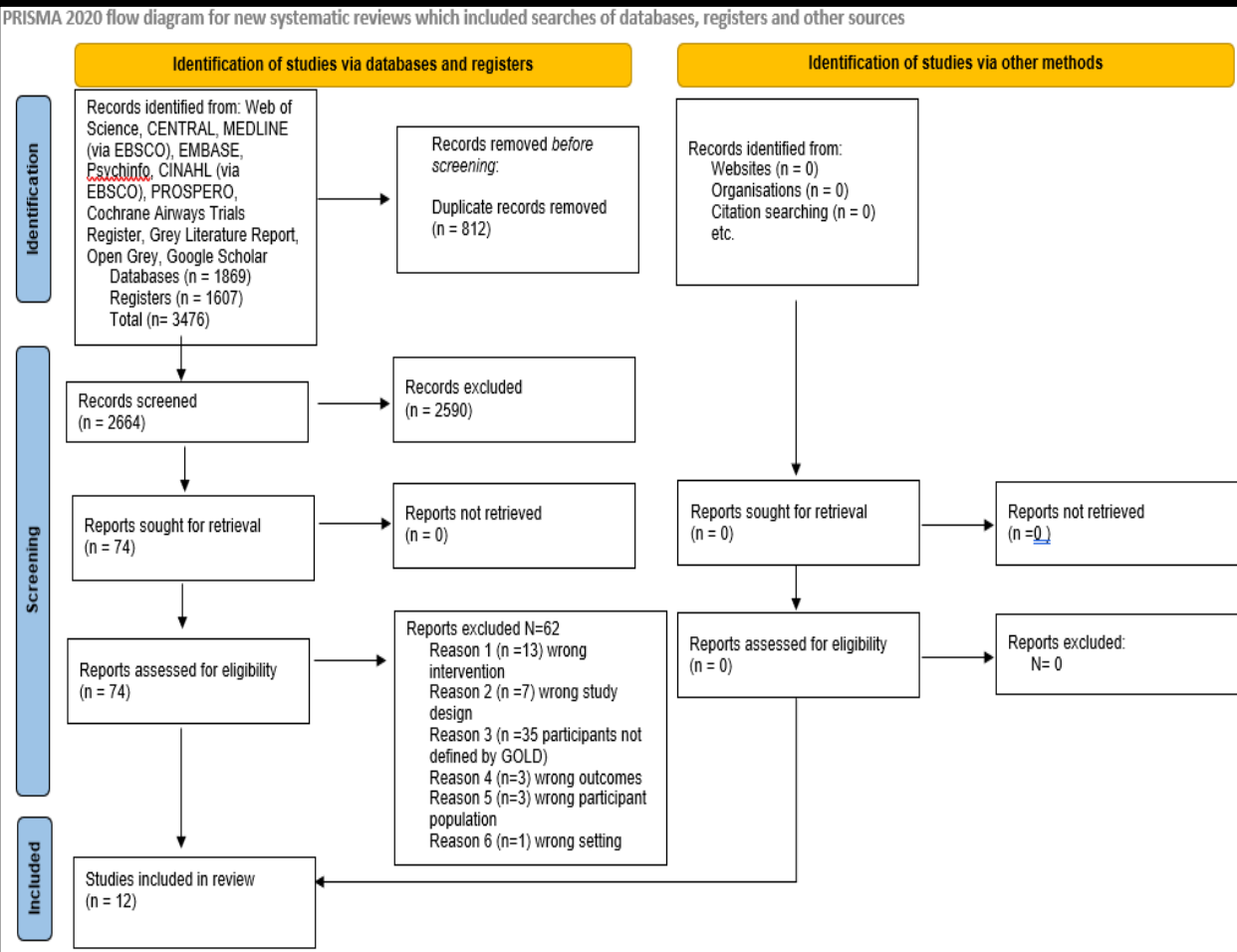
Methods:

Review conducted as per PRISMA guidelines 2020.

Eight databases will be searched from inception - Feb 2022.

- Data extracted independently by two reviewers: study design; participant characteristics; interventions; outcomes used and results
- BCTs independently extracted by two reviewers and mapped against the BCT taxonomy coding and the TDF
- A narrative synthesis will be conducted
- Risk of Bias will be assessed by the Cochrane Risk of Bias2 Tool.

| Inclusion criteria | Exclusion criteria |
|--|--|
| Adults 18yrs or older | Interventions targeting caregivers, healthcare professionals or organisations |
| Diagnosis of stable COPD (GOLD) (best recorded post-bronchodilator ratio FEV1/FVC <70%) | Studies that do not focus on physical activity levels or sedentary time as therapeutic target will be excluded |
| Studies in English | |
| Where the study has mixed diagnostic groups, studies to be included if data from participants with COPD is presented separately or participants with COPD comprise >80% of mixed diagnostic groups | |
| Randomised controlled trials that investigate any behavioural change intervention in relation to its effect on physical activity engagement or sedentary time | |
| The intervention must have a physical activity focus and can be out-patient pulmonary rehabilitation, community or home-based interventions, supervised or non-supervised by a healthcare professional | |



Results:

- 3476 studies were identified for title and abstract screening.
- Twelve RCTs (n=1211) included for review.
- A narrative synthesis with respect to nature, effectiveness on target population and setting/environment will be provided.
- Across all studies various behaviour change interventions were utilized, including counselling, step count monitoring/feedback, social support e.g. home visits, phone-calls, goal setting, motivational interviewing and tele-coaching.
- Interventions were predominantly delivered in the community and primary care setting by physiotherapists.

Conclusions:

- This systematic review will document and evaluate behaviour change interventions for physical activity in community dwelling adults with COPD
- The outcomes of this review will be applicable to patients, clinicians and policy-makers and inform treatment and future research
- On completion, the results of this review will be submitted for peer-reviewed publication in this field and disseminated among relevant patient groups, clinicians and policy- makers at conferences, seminars and via social media.

References

1. Michie S, Richardson M, Johnston M, Abraham C, Francis J, Hardeman W, et al. The Behavior Change Technique Taxonomy (v1) of 93 Hierarchically Clustered Techniques: Building an International Consensus for the Reporting of Behavior Change Interventions. Annals of Behavioral Medicine. 2013;46(1):81-95.
2. Global Initiative for Chronic Obstructive Lung Disease. 2020 GOLD Report. 2020 Accessed 19.08.20.