

Self-management behaviors to reduce exacerbation impact in COPD patients: a Delphi study.



YJG Korpershoek, JC Bruins Slot, TW Effing, MJ Schuurmans, JCA Trappenburg.

UMC Utrecht

University Medical Center Utrecht / University of Applied Sciences – Utrecht – The Netherlands.

Background

- COPD is a major problem for health care worldwide¹. The natural course of COPD is interrupted by **exacerbations**, which are associated with decline in quality of life,^{2,3} increased mortality⁴ and increased health care utilization.⁵
- Self-management interventions** have positive effects on exacerbation recovery time, reduce hospital admissions and are associated with increased quality of life.^{6,7} However, it remains unclear which intervention components are most effective, and at which moment in time these should be applied, to reduce **exacerbation impact**.
- So far, evidence regarding the most **relevant** and **feasible** self-management behaviors to reduce exacerbation impact is inconclusive. By investigating **expert opinion** regarding self-management behaviors, including those for which limited evidence is available, a deeper understanding of self-management behaviors can be reached.⁸

Study aim

To reach consensus with experts on the most relevant and feasible set of self-management behaviors, prior to, during and after an exacerbation, to maximally reduce the impact of exacerbations.

Methods

A two-round Delphi study, based on components of the RAND/UCLA appropriateness method,⁹ was performed to reach consensus on the relevance and feasibility of self-management behaviors. This Delphi study consists of different phases of data collection and data analysis following an iterative process (Figure 1). Descriptive statistics and qualitative analyses were used.

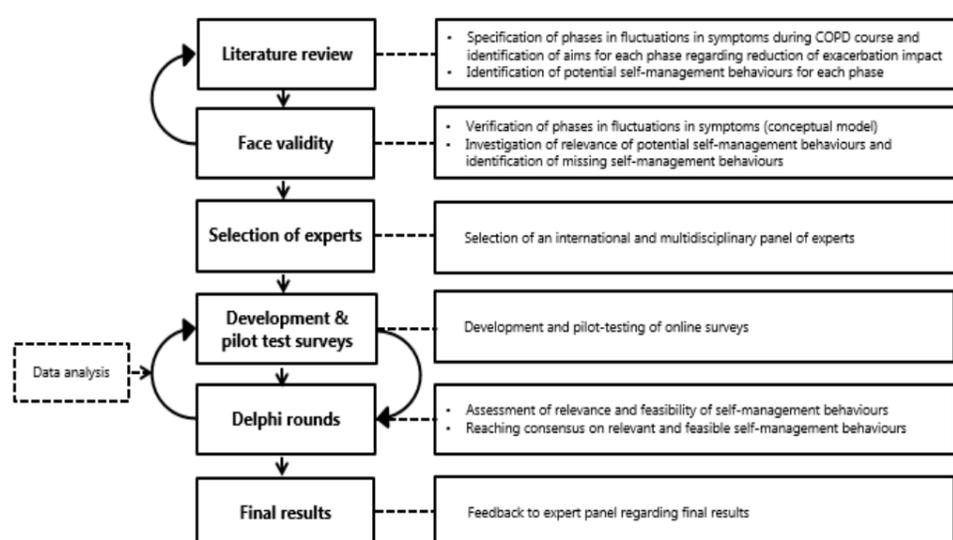


Figure 1. Study design of the Delphi study
Aim of Delphi rounds: to assess the relevance and feasibility of self-management behaviors for each phase of the conceptual model (Figure 2) and to gain insight into the degree of consensus between experts.

Each behavior was rated on three statements:

- the association between a behavior and reduction of exacerbation impact in a specific phase (relevance),
- the extent to whether there is room for improvement (relevance to intervene on a behavior),
- the feasibility to influence a behavior.

All statements were scored on a 9 point Likert scale (1= strongly disagree, 9 =strongly agree).⁹

Results

In total, 19 of the 30 (63%) invited experts agreed to participate in this study. The second Delphi round was completed by 16 experts. Based on two Delphi rounds, the expert panel reached consensus on a set of 17 self-management behaviors, distributed among five phases of symptom fluctuations during the course of COPD, that are both relevant and feasible to reduce exacerbation impact (Figure 2).

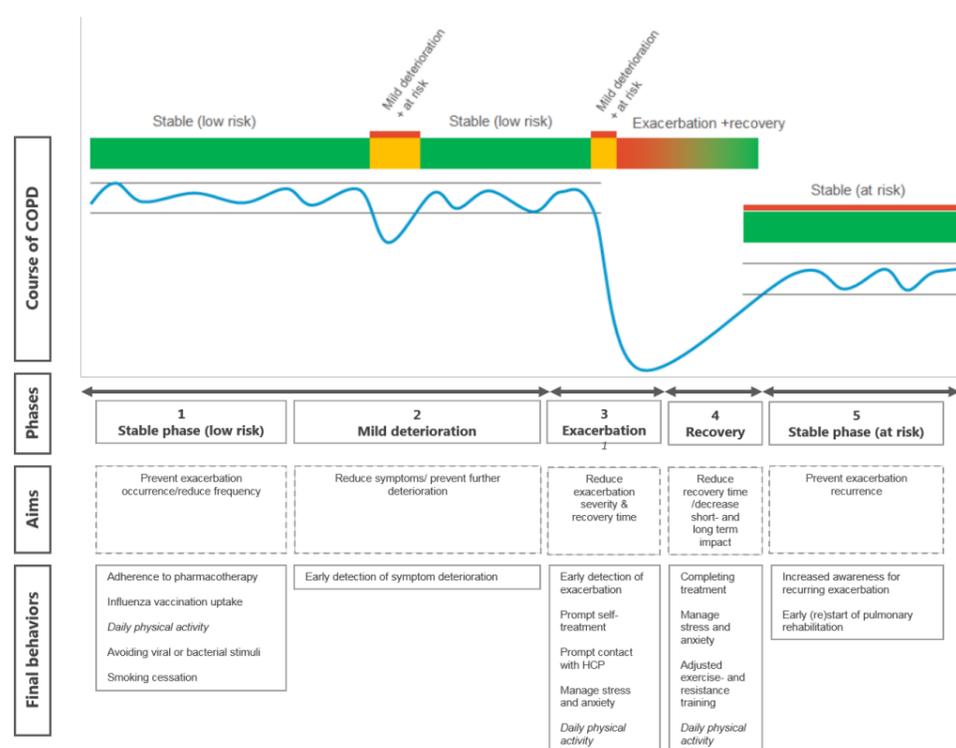


Figure 2. Conceptual model of patients' fluctuations in symptoms during the course of COPD including final self-management behaviors.

Conclusion

- This study identified a set of 17 relevant and feasible self-management behaviors to maximize reduction of exacerbation impact based on consensus within an international expert panel.
- To exert the highest magnitude of influence on the impact of exacerbations, it is important that patients perform specific self-management behaviors before, during and after an exacerbation.
- Future research should focus at developing and evaluating more comprehensive interventions supporting patients in exacerbation-related self-management.

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Key message

This study has provided insight into expert opinion on the most relevant and feasible self-management behaviours before, during and after an exacerbation to exert the highest magnitude of influence on the impact of exacerbations. This knowledge is essential for the development of future targeted and tailored self-management interventions that can potentially further reduce exacerbation impact.