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Non-adherence to peri-exacerbation pulmonary rehabilitation: The people have spoken

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Exacerbations of COPD, particularly when resulting in hospitalisation, represent important events on both an individual and population level. It is appreciated that the effects of an exacerbation extend beyond the lungs, with significant reduction in physical performance and exercise limitation.[1] In the stable state pulmonary rehabilitation has been shown to be one of the most efficacious treatments[2,3] and is firmly established as a central therapy in standard practice. The nature of pulmonary rehabilitation also lends itself to ameliorating the effects of an exacerbation, and over the past 10 years, post-exacerbation pulmonary rehabilitation has developed[4,5] and is now well recognised and recommended by international guidelines.[6,7]

Whilst post-exacerbation pulmonary rehabilitation is unequivocally beneficial in those that attend, it has more recently been appreciated that this comprises the minority of patients as more than 90% do not complete the programmes.[8] Attempts to improve this uptake have so far been unsuccessful, with treatment earlier into the exacerbation[9,10] or comparing early and late pulmonary rehabilitation resulting in negative outcomes.[11]

In a study reported in this issue, Benzo and colleagues explore the reasons for declining to participate in a study of post-hospitalisation physical activity programmes.[12] This constituted 61% of people approached to take part in the study. Of these, the most frequent reason for non-participation was a lack of interest in taking part. This is not surprising, as the prospect of exercise therapy whilst acutely unwell would put off many healthy people, let alone those with significant baseline dyspnoea. It would be interesting to know how many of this group had previously undergone pulmonary rehabilitation and whether they had benefitted. The authors compare these to the "disenganged phenotype" recently described in a different cohort.[13] It is important to note that this phenotype is valid at that point in time only. Natural recovery is clinically significant in this population,[9] and whether they remain disengaged once back at their baseline has not been shown. Every effort should be made to offer pulmonary rehabilitation again, ensuring they are not denied a proven therapy.

The other large group of non-participants were those that described themselves as too sick or frail. Identification of this cohort is important as there is undoubtedly an unmet need for therapies aimed at patients who cannot exercise to the physiological requirement to evoke adaptation. These patients are likely to already be on maximal bronchodilator therapy and a more "symptoms-based" treatment package based around palliative care and refractory dyspnoea may well offer the best outcome.

One particular strength of this study by Benzo and colleagues was that the group studied would not normally be reported in trials as they declined to participate. This makes them of notable interest, as their health beliefs are likely to be different from the participants in other trials. However, their voice is of particular importance, as not only do they make up the majority of the population, they are also the group we are attempting to involve in treatment.

It is not yet known how best to address the implementation of peri-exacerbation pulmonary rehabilitation. The current model only benefits a small minority of patients, yet requires large and complex organisation. This study provides a clue to the

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direction the area should be headed, by asking those most centrally involved.

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