

**Table S1.** Effectiveness of pulmonary rehabilitation at group level ( $n = 446$ ).

|                                               | Pre-PR        | Post-PR       | $\Delta(\text{post-pre})$ | <i>p</i> -value  |
|-----------------------------------------------|---------------|---------------|---------------------------|------------------|
| Clinical features                             |               |               |                           |                  |
| BMI, kg/m <sup>2</sup> <sup>a</sup>           | 25.9 ± 5.5    | 25.9 ± 5.0    | -0.0 ± 1.3                | 0.744            |
| FFMi, kg/m <sup>2</sup> <sup>b</sup>          | 16.5 ± 2.2    | 16.7 ± 2.1    | 0.1 ± 1.1                 | <b>&lt;0.001</b> |
| FEV1, L <sup>c</sup>                          | 1.2 ± 0.5     | 1.3 ± 0.7     | 0.1 ± 0.3                 | 0.058            |
| FEV1, % predicted <sup>c</sup>                | 42.6 ± 17.8   | 44.3 ± 20.0   | 1.7 ± 8.7                 | 0.018            |
| 6MWD, m <sup>d</sup>                          | 379.3 ± 102.6 | 436.9 ± 97.6  | 57.6 ± 73.2               | <b>&lt;0.001</b> |
| 6MWD, % predicted <sup>d</sup>                | 58.0 ± 15.3   | 66.0 ± 14.9   | 7.9 ± 11.6                | <b>&lt;0.001</b> |
| Quadriceps muscle strength, Nm <sup>e</sup>   | 296.3 ± 105.2 | 322.3 ± 106.7 | 26.0 ± 64.0               | <b>&lt;0.001</b> |
| Anxiety (SCL-90-A, 10-50), p <sup>f</sup>     | 17.6 ± 7.2    | 14.7 ± 6.4    | -3.0 ± 5.7                | <b>&lt;0.001</b> |
| NCSI – Symptoms                               |               |               |                           |                  |
| Subjective dyspnoea, p <sup>g</sup>           | 13.0 ± 3.8    | 9.8 ± 4.2     | -3.2 ± 4.4                | <b>&lt;0.001</b> |
| Dyspnoea (Dyspnoea VAS, 0-10), p <sup>g</sup> | 5.8 ± 1.9     | 4.7 ± 2.0     | -1.1 ± 2.1                | <b>&lt;0.001</b> |
| Dyspnoea emotions, p <sup>h</sup>             | 12.9 ± 4.0    | 11.0 ± 3.9    | -1.9 ± 3.8                | <b>&lt;0.001</b> |
| Fatigue (CIS-Fatigue, 8-56), p                | 41.9 ± 9.3    | 31.5 ± 10.4   | -10.4 ± 11.7              | <b>&lt;0.001</b> |
| NCSI – Quality of life                        |               |               |                           |                  |
| General QoL, p <sup>i</sup>                   | 26.8 ± 14.8   | 19.3 ± 12.3   | -7.4 ± 12.5               | <b>&lt;0.001</b> |
| HRQoL (2-10), p <sup>i</sup>                  | 5.8 ± 1.7     | 4.0 ± 1.7     | -1.8 ± 2.0                | <b>&lt;0.001</b> |
| Depression (BDI-PC, 0-21), p <sup>*</sup>     | 3.4 ± 3.0     | 1.9 ± 2.2     | -1.5 ± 2.6                | <b>&lt;0.001</b> |
| Satisfaction with relations, p                | 3.8 ± 1.8     | 3.3 ± 1.6     | -0.6 ± 2.1                | <b>&lt;0.001</b> |
| NCSI – Functional impairment                  |               |               |                           |                  |
| Subjective impairment, p                      | 16.4 ± 5.2    | 12.9 ± 5.1    | -3.5 ± 5.5                | <b>&lt;0.001</b> |
| Behaviour impairment, p                       | 27.2 ± 14.0   | 25.3 ± 14.5   | -1.9 ± 14.6               | <b>&lt;0.001</b> |

Data is presented as mean ±SD. P-value in bold indicates a significant difference. \* The BDI-PC is part of the subdomain 'HRQoL' of the NCSI. <sup>g</sup> The Dyspnoea VAS is part of the subdomain 'Subjective dyspnoea' of the NCSI. Alphabetic characters in superscript indicates a sample size deviant from  $n = 446$  with: <sup>a</sup>  $n = 389$ , <sup>b</sup>  $n = 310$ , <sup>c</sup>  $n = 373$ , <sup>d</sup>  $n = 270$ , <sup>e</sup>  $n = 311$ , <sup>f</sup>  $n = 434$ , <sup>g</sup>  $n = 445$ , <sup>h</sup>  $n = 440$ , and <sup>i</sup>  $n = 445$ . Abbreviations: PR, Pulmonary Rehabilitation;  $n$ , number;  $\Delta$ , Post-PR score minus Pre-PR score; BMI, Body Mass Index; FFMi, Fat-Free Mass index; FEV1, Forced Expiratory Volume in first second; L, Litre; 6MWD, Six Minute Walking Distance test; m, metre; Nm, Newton meter; SCL-90-A, 90-items Symptom Checklist – Subscale Anxiety; p, points; NCSI, Nijmegen Clinical Screening Instrument; Dyspnoea VAS, Dyspnoea Visual Analogue Scale; CIS-Fatigue, Checklist Individual Strength – Subscale Subjective Fatigue; QoL, Quality of Life; HRQoL, Health-Related Quality of Life; BDI-PC, Beck Depression Inventory for Primary Care.

**Table S2.** Bivariate correlation between change in fatigue ( $\Delta$ fatigue) and change in other outcome measures.

|                                                  | <i>n</i> | Correlation coefficient | <i>p</i> -Value  |
|--------------------------------------------------|----------|-------------------------|------------------|
| Clinical features                                |          |                         |                  |
| $\Delta$ BMI, kg/m <sup>2</sup>                  | 389      | 0.012                   | 0.812            |
| $\Delta$ FFMi, kg/m <sup>2</sup>                 | 310      | -0.126                  | 0.026            |
| $\Delta$ FEV <sub>1</sub> , % predicted          | 373      | -0.053                  | 0.303            |
| $\Delta$ 6MWD, % predicted                       | 270      | -0.323                  | <b>&lt;0.001</b> |
| $\Delta$ Lower limb strength, Nm                 | 311      | -0.035                  | 0.537            |
| $\Delta$ Anxiety (SCL-90-A), p                   | 434      | 0.243                   | <b>&lt;0.001</b> |
| NCSI—Symptoms                                    |          |                         |                  |
| $\Delta$ Subjective dyspnoea, p <sup>#</sup>     | 445      | 0.368                   | <b>&lt;0.001</b> |
| $\Delta$ Dyspnoea (Dyspnoea VAS), p <sup>#</sup> | 445      | 0.321                   | <b>&lt;0.001</b> |
| $\Delta$ Dyspnoea-emotions, p                    | 440      | 0.245                   | <b>&lt;0.001</b> |
| NCSI—Quality of Life                             |          |                         |                  |
| $\Delta$ General QoL, p                          | 445      | 0.300                   | <b>&lt;0.001</b> |
| $\Delta$ HRQoL, p <sup>*</sup>                   | 445      | 0.424                   | <b>&lt;0.001</b> |
| $\Delta$ Depression (BDI-PC), p <sup>*</sup>     | 446      | 0.276                   | <b>&lt;0.001</b> |
| $\Delta$ Satisfaction with relations, p          | 446      | 0.142                   | <b>0.003</b>     |
| NCSI – Functional Impairment                     |          |                         |                  |
| $\Delta$ Behaviour Impairment, p                 | 446      | 0.131                   | <b>0.005</b>     |
| $\Delta$ Subjective Impairment, p                | 446      | 0.306                   | <b>&lt;0.001</b> |

Data is presented as Pearson correlation coefficient unless otherwise stated. P-value in bold indicates a significant difference. <sup>\*</sup> The BDI-PC is part of the subdomain 'HRQoL' of the NCSI. <sup>#</sup> The Dyspnoea VAS is part of the subdomain 'Subjective dyspnoea' of the NCSI. Abbreviations:  $\Delta$ , Post-PR score minus Pre-PR score; *n*, number; BMI, Body Mass Index; FFMi, Fat-Free Mass index; FEV<sub>1</sub>, Forced Expiratory Volume in first second; 6MWD, Six Minute Walking Distance test; Nm, Newton meter; SCL-90-A, 90items Symptom Checklist – Subscale Anxiety; p, points; NCSI, Nijmegen Clinical Screening Instrument; Dyspnoea VAS, Dyspnoea Visual Analogue Scale; QoL, Quality of Life; HRQoL, Health-Related Quality of Life; BDI-PC, Beck Depression Inventory for Primary Care.