Supplementary material BMJ Open Resp Res

## Online supplement

Validation of the Swedish Multidimensional Dyspnea Profile (MDP) in outpatients with cardiorespiratory disease

**Table S1.** Confirmatory factor analysis (CFA) of the proposed two factor model of the Swedish version of the Multidimensional Dyspnea Profile (MDP)

**Table S2.** MDP measurement properties between patients with COPD (n=45) and patients with other diagnoses (n=137) as main cause of breathlessness.

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**Table S1.** Confirmatory factor analysis of the proposed two factor model of the Swedish version of the Multidimensional Dyspnea Profile (MDP)

	All patients (n=182)		Patients with COPD* (n=45)		Patients with non-COPD* (n=137)	
Item	Immediate perception	Emotional response	Immediate perception	Emotional response	Immediate perception	Emotional response
Muscle work or effort	0.790	0.287	0.783	0.433	0.777	0.254
Air hunger	0.794	0.308	0.794	0.365	0.798	0.293
Chest tightness or constriction	0.573	0.440	0.568	0.680	0.551	0.391
Mental effort or concentration	0.752	0.391	0.727	0.532	0.752	0.358
Breathing a lot	0.631	0.318	0.757	0.323	0.618	0.272
A1 unpleasantness	0.670	0.389	0.750	0.294	0.657	0.416
Depressed	0.316	0.756	0.293	0.916	0.297	0.735
Anxious	0.324	0.840	0.376	0.763	0.322	0.841
Frustrated	0.393	0.648	0.614	0.537	0.334	0.684
Angry	0.326	0.639	0.497	0.699	0.258	0.623
Afraid	0.375	0.772	0.369	0.695	0.395	0.772

<sup>\*</sup> Underlying main cause of breathlessness as judged by the responsible clinician. *Abbreviation:* COPD = chronic obstructive pulmonary disease.

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**Table S2.** MDP measurement properties between patients with COPD (n=45) and patients with other diagnoses (n=137) as main cause of breathlessness

MDP score	Patients with COPD*	Patients with non- COPD*
	(n=45)	(n=137)
Internal consistency, Cronbach's alpha		
Total	0.956	0.925
Immediate perception	0.859	0.818
Emotional response	0.815	0.793
Test-retest reliability over 2 weeks, ICC (95% CI)#		
Total	0.69 (0.31 to 0.88)	0.87 (0.78 to 0.93)
Immediate perception	0.70 (0.31 to 0.89)	0.80 (0.65 to 0.89)
Emotional response	0.63 (0.27 to 0.84)	0.85 (0.74 to 0.91)
A1 unpleasantness	0.71 (0.38 to 0.88)	0.67 (0.49 to 0.79)
Concurrent validity, Pearson's correlation coefficients		
of:		
MDP total score with:		
FEV <sub>1</sub> % of predicted	-0.298	-0.342
mMRC	0.530	0.412
CAT total	0.540	0.650
EQ-5D-5L	-0.673	-0.627
HADS total	0.468	0.391
HADS anxiety	0.620	0.500
HADS depression	-0.234	-0.088
FACIT-Fatigue	-0.708	-0.647
A1 unpleasantness with:		
FEV <sub>1</sub> % of predicted	-0.440	-0.225
mMRC	0.595	0.380
CAT total	0.594	0.551
EQ-5D-5L	-0.568	-0.508
HADS total	0.231	0.232
HADS anxiety	0.310	0.325
HADS depression	-0.113	-0.077
FACIT-Fatigue	-0.569	-0.576

<sup>\*</sup> Underlying main cause of breathlessness as judged by the responsible clinician.

*Abbreviations:* COPD = chronic obstructive pulmonary disease; ICC = intraclass correlation coefficient; MDP = Multidimensional Dyspnea Profile.

<sup>#</sup> Test-retest reliability between two weeks and baseline in people who rated their breathlessness as unchanged.