

Methods

Symptom assessment using the modified Borg scale

Prior to the beginning of the study protocol participants were instructed that they would be asked about what their breathing “feels like” (sensory-perceptual measurement of dyspnea intensity), in accordance with the updated ATS statement on dyspnea.¹ During CPAP titration participants rated their sensation of breathlessness (“how strong is your breathing discomfort”) at the end of each pressure level using the modified Borg scale.² Zero points (“0”) indicated no discomfort during CPAP use and ten points (“10”) represented the worst discomfort imaginable (Figure S1). The assessment of breathlessness intensity, as measured by the respiratory muscle activity, reflects the sensation that is described as “physical breathing effort” and “air hunger” (Sensory Dimension).³ This approach was chosen as it comes close to the assessment of dyspnea intensity during physiological exercise protocols.^{4,5}

Briefing of patients regarding breathlessness score

Prior to the CPAP titration patients were briefed to report their sensation of “discomfort” while breathing when pointing to the modified Borg scale. They were instructed that “0” meant no discomfort at all and that “10” indicated the worst sensation of breathlessness imaginable. Patients predominantly reported qualitative ‘discomfort’ and laboured ‘physical breathing effort’ with higher CPAP levels.

References

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3. Banzett RB, O'Donnell CR, Guilfoyle TE, Parshall MB, Schwartzstein RM, Meek PM, et al. Multidimensional Dyspnea Profile: an instrument for clinical and laboratory research. *ERJ Express.* 2015;doi:10.1183/09031936.00038914.
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Shortness of Breath Modified Borg Dyspnea Scale

0	Nothing at all
0.5	Extremely Slight (just noticeable)
1	Very Slight
2	Slight
3	Moderate
4	Somewhat Severe
5	Severe
6	
7	Very Severe
8	
9	Extremely Severe (almost maximal)
10	Maximal

Figure S1: modified Borg scale, range 0-10, with 0 indicating no discomfort and 10 indicating maximal imaginable dyspnea.