hospital admissions, had higher activity impairment and reported worse quality of life and sleep, whilst asymptomatic patients utilised the least resources and reported the best quality of life and sleep. The remaining groups suffered similar levels of burden.

Conclusions In this analysis, patients experiencing morning, daytime and night-time symptoms have the worst PROs and more disease burden. Clearer recognition of symptom burden and an individualised treatment approach may be warranted for these patients.

Outcomes	None	D only	M/D only	D/N only	M, N or	M/D/N
(Mean, S.	(n = 2060)	(n = 1274)	(n = 1378)	(n = 477)	M/N only	(n = 2651
D.)					(n = 345)	
PCP	2.8 (2.9)	3.1 (3.0)	3.0 (3.0)	3.8 (3.2)	3.1 (3.1)	4.4 (4.5)
consultations						
Specialist	1.7 (1.8)	2.3 (2.2)	2.4 (2.2)	2.1 (2.0)	1.7 (1.9)	2.8 (2.8)
consultations						
ER visits	0.0 (0.3)	0.1 (0.4)	0.1 (0.4)	0.2 (0.5)	0.1 (0.4)	0.3 (0.6)
Hospital	0.0 (0.2)	0.1 (0.5)	0.2 (0.6)	0.2 (0.5)	0.1 (0.5)	0.5 (1.0)
admissions						
% activity	24.6 (20.0)	36.8 (20.1)	41.0 (22.0)	45.0	33.7	56.4 (23.2)
impairment				(19.4)	(22.2)	
EQ-5D-3L	0.89 (0.18)	0.85 (0.19)	0.81 (0.22)	0.80	0.86	0.69 (0.28
				(0.19)	(0.17)	
EQ-VAS	72.7 (15.0)	66.7 (14.8)	63.7 (15.0)	62.9	68.6	56.3 (17.6
				(16.1)	(13.9)	
CAT	14.2 (7.4)	18.4 (7.1)	20.2 (6.9)	21.5 (6.1)	18.9 (7.1)	25.7 (6.6)
JSEQ	2.4 (2.9)	3.6 (3.3)	4.3 (3.9)	5.6 (3.4)	4.4 (3.5)	8.3 (4.8)
Impact on						
Sleep, n (%)						
None	485 (42.1)	212 (32.9)	189 (26.2)	11 (4.5)	42 (20.1)	60 (4.2)
Low	512 (44.5)	295 (45.7)	347 (48.1)	90 (37.0)	86 (41.1)	364 (25.2)
Medium	121 (10.5)	103 (16.0)	142 (19.7)	105	50 (23.9)	557 (38.6)
				(43.2)		
High	30 (2.6)	33 (5.1)	39 (5.4)	36 (14.8)	22 (10.5)	367 (25.5)
Constant	3 (0.3)	2 (0.3)	4 (0.6)	1 (0.4)	9 (4.3)	94 (6.5)

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ASSOCIATIONS BETWEEN THE PSYCHOLOGICAL HEALTH OF PATIENTS AND THEIR INFORMAL CARERS IN ADVANCED COPD: WHAT ARE THE RISK FACTORS FOR ANXIETY AND DEPRESSION IN PATIENTS, CARERS AND PATIENT-CARER DYADS?

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Introduction Anxiety and depression (AD) are highly prevalent in patients with advanced COPD and their informal carers, and are associated with lower quality of life and increased healthcare use. Previous studies have postulated risk factors for patient AD in COPD (including dyspnoea, poor functional status and poor self-management) and carer AD (including female gender, insufficient support and high subjective symptom burden). However, little is known about the association between patient and carer AD. We aimed to determine this and factors associated with patient, carer and dyad AD.

Methods Prospective mixed-method interviews with a population-based cohort of 109 pairs of well-characterised advanced COPD patients and their carers. Clinical anxiety and depression (defined as Hospital Anxiety and Depression Scale [HADS] anxiety or depression score >11) were identified and a dichotomous 'psychological morbidity' (PM) variable created (HADS score >11 for either anxiety or depression) due to small sample size. Mann-Whitney U tests and multivariate logistic regression identified factors associated with patient (n = 39) or carer (n = 30) PM.

Results Prevalence of anxiety and depression was 31.2% and 15.6% in patients and 26.6% and 11% in carers respectively. In univariate analysis, patient and carer PM were significantly associated with each other (p = 0.005), with odds ratio 3.388 (95% CI: 1.414–8.118), and mainly disease-related variables and carer characteristics (including poor coping and unmet support needs), respectively. No demographic factors were significantly associated with patient PM but female gender was associated with carer PM. Table 1 shows the results of multivariate analysis. Finally, dyad PM was associated with male patients/female carers, living apart, parent-child relationship, and more exacerbations.

Conclusions For patients, more exacerbations may indicate disease progression resulting in anxiety, fatigue may limit activity leading to social isolation and depression, and poor self-management may increase symptom burden leading to AD. Patient PM could lead to carer PM by increasing carer burden and impairing intra-dyad communication. Our study, with the strength of a prospective approach and recruitment from primary care, highlights the need to assess AD in carers of COPD patients (particularly with AD), to prevent it with more information and support for carers, and for interventions targeting the dyad.

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IMPROVING CARE AND SUPPORT IN ADVANCED COPD – SIX RECOMMENDATIONS FROM THE POPULATIONBASED LIVING WITH BREATHLESSNESS STUDY

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Introduction Chronic obstructive pulmonary disease (COPD) is a chronic life-limiting condition with high symptom-burden and carer-burden. National guidance on end of life care calls for quality care for patients with any condition, yet we rely on frameworks developed for cancer with its largely predictable trajectory. Aim To develop evidence-based recommendations to inform a new framework to improve care and support of patients living with advanced COPD and their informal carers.

Methods The Living with Breathlessness Study was a multiple-component, population-based, mixed-method longitudinal, multiple-perspective research programme to identify new evidence on health and social care needs and preferences of patients with advanced COPD and their carers. It followed more than 500 patients and carers for up to 18-months through interview and survey methods. Qualitative data on barriers and facilitators to meeting needs were collected from clinicians. Programme-wide evidence was synthesised to identify recommendations. Stakeholder views were then collected through a workshop and online survey.

Results Six inter-related recommendations emerged, linked by the concept of proactive person-centred care: (1) Stop the

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