

Table A1. Full electronic search strategy for each database

Database	Search strategy	Limits / Filters	Records identified
PubMed	("Pulmonary Disease, Chronic Obstructive"[MeSH] OR COPD OR "chronic obstructive pulmonary disease") AND (readmission OR rehospitalization OR "hospital readmission" OR "30-day readmission" OR "early readmission") AND (psychological OR depression OR anxiety OR psychosocial OR "self efficacy" OR coping OR behavior OR behavioural OR adherence OR motivation OR "illness perception") AND (discharge OR "post discharge" OR postdischarge OR transition OR "transitional care" OR "post-hospital")	English; Humans; Adults; 2000–2026	261
Scopus	TITLE-ABS-KEY(("chronic obstructive pulmonary disease" OR COPD) AND (readmission OR rehospitalization OR "hospital readmission" OR "30 day readmission" OR "early readmission") AND (psychological OR depression OR anxiety OR psychosocial OR "self efficacy" OR coping OR behavior OR adherence OR motivation OR "illness perception") AND (discharge OR "post discharge" OR postdischarge OR transition OR "transitional care"))	English; Year >1999	178
Web of Science	TS=(("chronic obstructive pulmonary disease" OR COPD) AND (readmission OR rehospitalization OR "hospital readmission" OR "early readmission") AND (psychological OR depression OR anxiety OR psychosocial OR "self efficacy" OR coping OR behavior OR adherence OR motivation) AND (discharge OR "post discharge" OR transition OR "transitional care"))	English; 2000–2026; Article	109
CINAHL	(MH "Pulmonary Disease, Chronic Obstructive" OR COPD OR "chronic obstructive pulmonary disease") AND (readmission OR rehospitalization OR "hospital readmission") AND (psychological OR depression OR anxiety OR psychosocial OR coping OR "self efficacy" OR behavior OR adherence) AND (discharge OR postdischarge OR "post discharge" OR transition OR "transitional care")	English; Adults; Peer-reviewed; 2000–2026	64

Table A2. Study selection results by database

Stage	PubMed	Scopus	Web of Science	CINAHL	Total
Records identified	261	178	109	64	612
After duplicates + automation removed	185	126	76	47	434
Records screened	185	126	76	47	434
Records excluded (title/abstract)	118	80	48	32	278
Reports sought for retrieval	67	46	28	15	156
Reports not retrieved	35	24	14	7	80
Full text assessed	32	22	14	8	76
Full text excluded	22	17	9	6	54
Included studies	10	5	5	2	22

Table A3. Summary of Full-Text Exclusion Reasons

No.	Exclusion category	Screening decision	Reason for exclusion	Comment
1	Review articles, editorials, protocols, or conference abstracts without full text	Exclude	Not an eligible primary empirical study	Reviews were used for background only when relevant.
2	Non-COPD or mixed populations without separate COPD data	Exclude	Population did not match the PCC framework	Mixed-disease studies were retained only when COPD findings were separable.
3	No psychosocial determinant	Exclude	The study examined only clinical, physiological, administrative, or treatment-related predictors	Psychological, behavioral, cognitive, or social/contextual variables were required.
4	No readmission or post-discharge transition outcome	Exclude	The outcome did not address readmission, rehospitalization, exacerbation, discharge readiness, or transition after discharge	This criterion preserved alignment with the review question.
5	Insufficient data or inaccessible full text	Exclude	Full text could not be obtained or did not provide enough information for charting	Counts are summarized in Appendix Table A2.

Supplementary Table S1. Detailed characteristics of included studies on psychosocial factors and COPD readmission/post-discharge outcomes (n = 22)

Study/country	Design and sample	Outcome/follow-up	Psychosocial factors	Measures/data source	Main findings
Gudmundsson et al. (2005); Nordic countries	Prospective cohort; 406 patients with COPD	Rehospitalization within 12 months	Anxiety, depression, health status	HADS; SGRQ	Anxiety increased rehospitalization risk, particularly among patients with poor health status.
Xu et al. (2008); China/Canada	Prospective cohort; 491 patients with COPD	Exacerbation and hospitalization	Depression and anxiety	HADS	Depression increased hospitalization and exacerbation risk independently of disease severity.
Coventry et al. (2011); United Kingdom	Prospective cohort; 79 patients referred to an early-discharge service	Readmission within 90 days and 12 months	Depression, anxiety, social support, socioeconomic status	HADS; SGRQ; ESSI; Carstairs Index	Depression and socioeconomic status independently predicted readmission after adjustment; social support was not significant.
Martínez-Gestoso et al. (2022); Spain	Prospective observational study; patients hospitalized for AECOPD	Prognosis after exacerbation, including readmission-related outcomes	Anxiety and depression	HADS; clinical follow-up	Depression was associated with poorer prognosis and increased AECOPD-related adverse outcomes.
Iyer et al. (2016); United States	Retrospective cohort; patients hospitalized for AECOPD	30-day, 90-day, and 1-year readmission	Depression and anxiety	Medical records and diagnostic data	Depression independently predicted readmission at 30 days, 90 days, and 1 year.
Tang & Lee (2017); China	Qualitative phenomenology; 22 older adults with COPD	Lived experience of hospital readmission	Emotional response, coping, perceived family burden	In-depth interviews	Readmission experiences were shaped by emotional state, family burden, and the meaning patients assigned to coping and recurrent hospitalization.
Al Aqqad et al. (2017); Malaysia	Multicenter prospective study; 81 older adults with AECOPD	Short-term/3-month readmission	Anxiety, depression, comorbidity burden	GAD-7; GDS-15; clinical data	Anxiety and depression were common; frequent previous admissions and ischemic heart disease were associated with short-term readmission.
Singh et al. (2016); United States	Retrospective cohort using 5% Medicare data; 135,498 hospitalizations among 80,088 beneficiaries	All-cause 30-day readmission	Depression, anxiety, psychosis, alcohol misuse, drug misuse, low socioeconomic status	ICD-9 codes; Elixhauser Index; claims data	Psychological disorders were independently associated with 30-day readmission; anxiety showed the strongest association and improved prediction.

Study/country	Design and sample	Outcome/follow-up	Psychosocial factors	Measures/data source	Main findings
Lau et al. (2017); United States	Retrospective database study; >500,000 COPD admissions	30-day readmission	Depression, psychosis, substance misuse, socioeconomic factors	Hospital administrative database	Depression and psychosis independently predicted readmission and contributed to a readmission-risk scale.
Suwan et al. (2018); Thailand	Cross-sectional study; 207 older adults with COPD	Readiness for hospital discharge	Sense of coherence, uncertainty, social support, discharge teaching, living arrangement	RHDS; SOC scale; uncertainty scale	Living arrangement, uncertainty, and discharge teaching significantly predicted discharge readiness.
Fernández-García et al. (2020); Spain	Prospective cohort; 253 patients hospitalized with severe AECOPD	Readmission at 30, 90, and 365 days	Anxiety, depression, social vulnerability, functional dependency	Clinical, functional, and social assessments	Dependence in basic activities of daily living and previous admissions were the strongest readmission predictors.
Goto et al. (2020); United States	Retrospective cohort; 905 COPD hospitalizations	Overall 30-day, early 0-7 day, and late 8-30 day readmission	Education, marital status, and other social factors	Medicare Current Beneficiary Survey	Adding social factors improved prediction of both early and late readmission.
Hegelund et al. (2020); Denmark	Pilot randomized controlled trial; 100 randomized, 99 analyzed	COPD-related readmission within 3 months; symptoms and psychological outcomes	Anxiety, depression, distress, confidence, involvement, perceived management ability	HADS; CAT; CCI; electronic records	A personalized action plan reduced COPD-related readmission and improved CAT and depression scores, supporting structured self-management follow-up.
Huang et al. (2021); China	Prospective cohort; 504 patients with COPD	Exacerbation and hospitalization	Anxiety and depression	Anxiety/depression scale; clinical follow-up	Anxiety and depression were associated with increased exacerbation and hospitalization risk.
Esteban et al. (2023); Spain	Prospective observational cohort; 883 hospitalized patients with COPD	Readmission within 2 months	Depressive symptoms, quality of life, need for help, physical activity	HADS; CAT; EQ-5D; YPAS	Depressive symptoms, low physical activity, and need for assistance were associated with higher readmission risk.
Wu et al. (2023); China	Cross-sectional study; 302 older adults with COPD	Readiness for discharge and post-discharge risk	Marital status, support, disease severity, discharge teaching quality	RHDS; QDTS	Discharge readiness was associated with teaching quality and available support.
Bell et al. (2024); United States	Retrospective observational study; 92 patients with AECOPD	30-day readmission	Psychiatric diagnosis, substance misuse, homelessness, socioeconomic factors	Medical record review	Psychiatric diagnosis, substance misuse, homelessness, previous admissions, and comorbidity were associated with higher readmission risk.

Study/country	Design and sample	Outcome/follow-up	Psychosocial factors	Measures/data source	Main findings
Wijekulasuriya et al. (2024); Australia	Retrospective cohort; >10,000 COPD hospitalizations	Unplanned readmission within 12 months and mortality	Mental disorders, anxiety, dementia	Hospital records and diagnostic codes	Mental disorders were associated with increased unplanned readmission and mortality.
Baydar Toprak et al. (2024); Türkiye	Multicenter prospective study; 415 patients with severe COPD exacerbation	30-day and 90-day readmission	Anxiety and depression	HADS	Anxiety and depression were associated with early readmission after severe exacerbation.
Li et al. (2024); China	Quasi-experimental study; 65 patients with COPD	Post-discharge adherence and rehospitalization-related outcomes	Hope, self-efficacy, and motivation	Hope Index; self-efficacy scale	Higher hope and self-efficacy improved adherence and were associated with lower post-discharge risk.
Larsen et al. (2025); Norway	Qualitative study; patients with COPD and healthcare professionals	Experience of the transition from hospital to home	Health literacy, motivation, support	Qualitative interviews	Low health literacy and insufficient support were perceived as barriers to a safe post-discharge transition.
Chen et al. (2025); China	Qualitative study; 28 older adults with COPD	Recovery and recurrence risk across disease-management stages	Health literacy, self-management, psychological state	In-depth interviews	Limited health literacy and weak self-management capacity increased vulnerability to relapse and poor recovery.

Abbreviations: AECOPD, acute exacerbation of chronic obstructive pulmonary disease; CAT, COPD Assessment Test; CCI, Charlson Comorbidity Index; ESSI, ENRICHD Social Support Instrument; GAD-7, Generalized Anxiety Disorder-7; GDS-15, 15-item Geriatric Depression Scale; HADS, Hospital Anxiety and Depression Scale; QDTS, Quality of Discharge Teaching Scale; RHDS, Readiness for Hospital Discharge Scale; SGRQ, St. George's Respiratory Questionnaire; SOC, sense of coherence; YPAS, Yale Physical Activity Survey.