

Understanding the Burden of Chronic Cough in Patients with Interstitial Lung Disease: Insights from a U.S. Patient Perspective Survey

Tejaswini Kulkarni¹, Jeffrey Swigris², Charlene Watterston³, Abbey Nakano⁴, Jessica E. Shore⁵

¹The University of Alabama at Birmingham, Birmingham, AL, USA; ²National Jewish Health, Denver, CO, USA; ³Huumun, Bracknell, Berkshire, United Kingdom; ⁴Trevi Therapeutics, New Haven, CT, USA; ⁵Pulmonary Fibrosis Foundation, Chicago, IL, USA

Background

- Chronic cough (a cough lasting >8 weeks) is a debilitating condition that is commonly experienced by patients living with idiopathic pulmonary fibrosis (IPF) and non-IPF interstitial lung diseases (ILDs), and significantly affects a patient's quality of life¹
 - 85% of patients with IPF experience chronic cough²⁻³
- Despite its prevalence in patients living with IPF and ILD, the impact of chronic cough on patients' daily lives remains under-characterized

Objective

- To assess the wide-ranging burden of chronic cough from the perspective of patients with IPF and non-IPF ILD.

Methods

- This study used an online survey that was a mixture of multiple-choice and open-ended questions covering demographics, disease history, cough characteristics, healthcare experience, and social, emotional, daily life, and long-term impacts
- The survey was hosted on a third-party online platform (Typeform) and distributed to the U.S. Pulmonary Fibrosis Foundation (PFF) Community Registry via email
- Patients self-identified in the survey as living with IPF or non-IPF ILD with chronic cough (a cough lasting >8 weeks)
- Patients were not compensated for their participation

Results

Demographics

- A total of 197 patients with chronic cough completed the survey

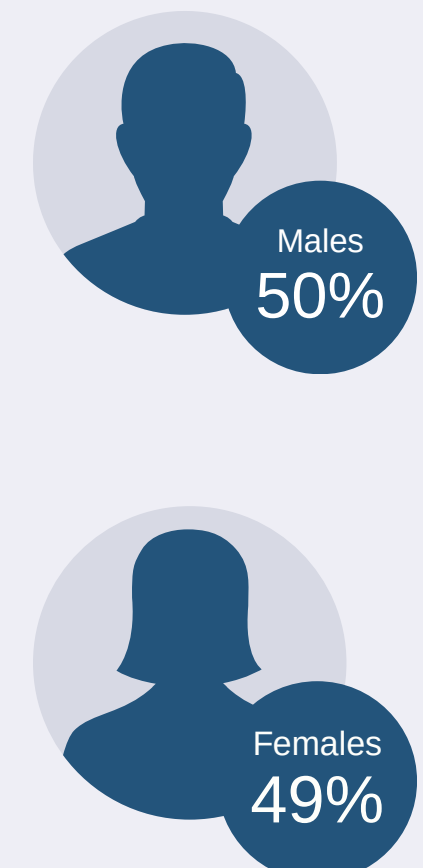


Table 1. Patient Demographics

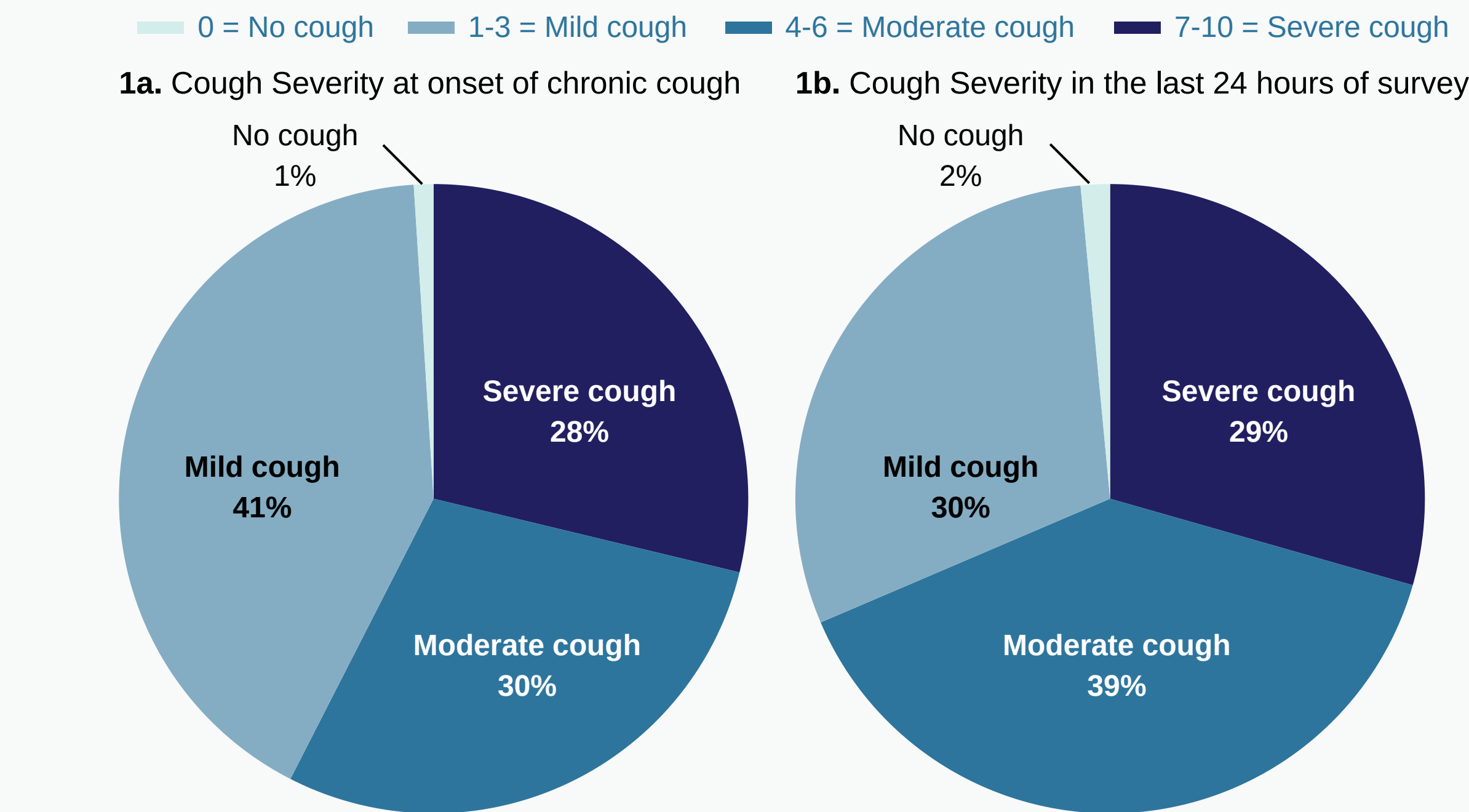
ILD Diagnosis	IPF	76%
	Non-IPF ILD	21%
	Awaiting further diagnosis	3%
Age (years)	30-39	1%
	40-59	14%
	60-79	69%
	80+	17%
Comorbidities	GERD	54%
	COPD	5%
	Asthma	15%
	Post-nasal drip	47%
	Cardiovascular disease	27%
	Autoimmune disease	28%
	Diabetes	8%
	Other	18%

Results

Disease History

- 76% of patients have had a chronic cough for over 2 years
- 58% of patients reported a moderate to severe chronic cough at the onset of their chronic cough, which increased to 68% of patients when asked about their chronic cough in the last 24 hours (Figure 1).

Figure 1. Patient-reported cough severity on a 0–10 scale



Cough Characteristics

- 63% of patients often or almost constantly experience the urge to cough, even if they do not actually cough
- 4% of patients reported that coughing relieves the urge to cough all of the time
- 78% of patients cough for over 30 seconds once they start
- 35% of patients reported experiencing cough bouts or attacks daily and almost 30% reported experiencing them 4 or more times a week

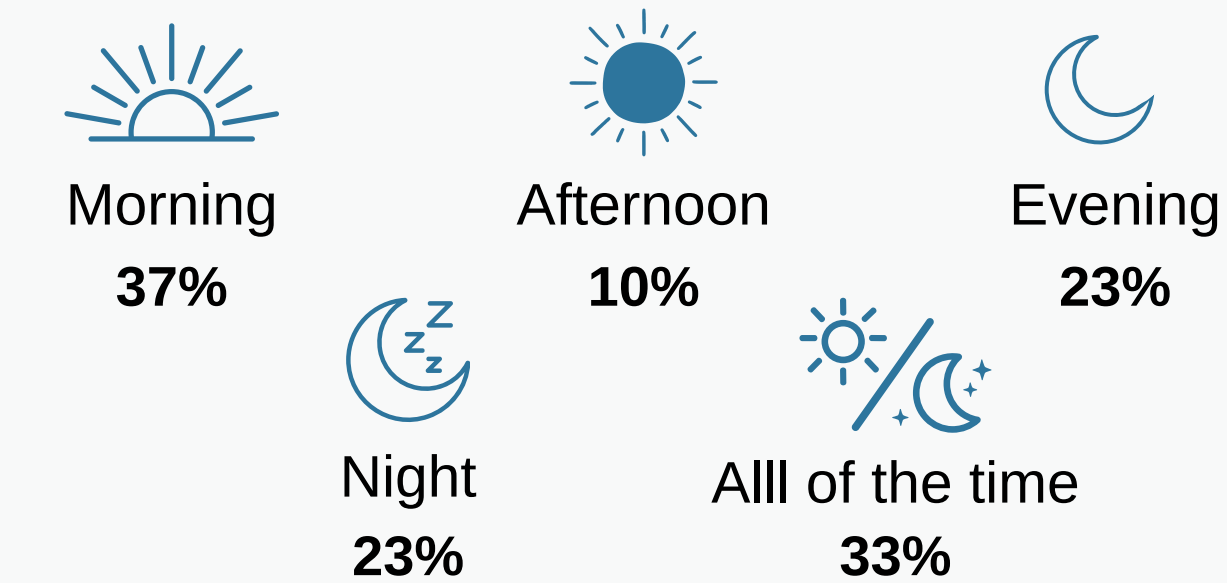


Table 2. Patient-Reported Cough Triggers

“What Triggers Your Cough?”	%
Respiratory-related/sensation	22%
Exertion/physical activity/body position	22%
Unknown/unpredictable	15%
Throat irritation	14%
Environmental	13%
Talking/laughing	7%
Eating/drinking	7%

Healthcare Experience

Table 3. Cough Treatments Patients are Currently Using

Treatment	Patients Currently Using (n=171)
Over the Counter Remedies	56%
Inhalers or Nebulizers	53%
Benzonatate	22%
Proton Pump Inhibitors	21%
Oral and/or Inhaled Glucocorticoids	21%
Humidifier	15%
Neuromodulator	11%
None	11%
Opioids	11%
Holistic/Alternative Approach	6%
Speech or Cough Control Therapy	2%

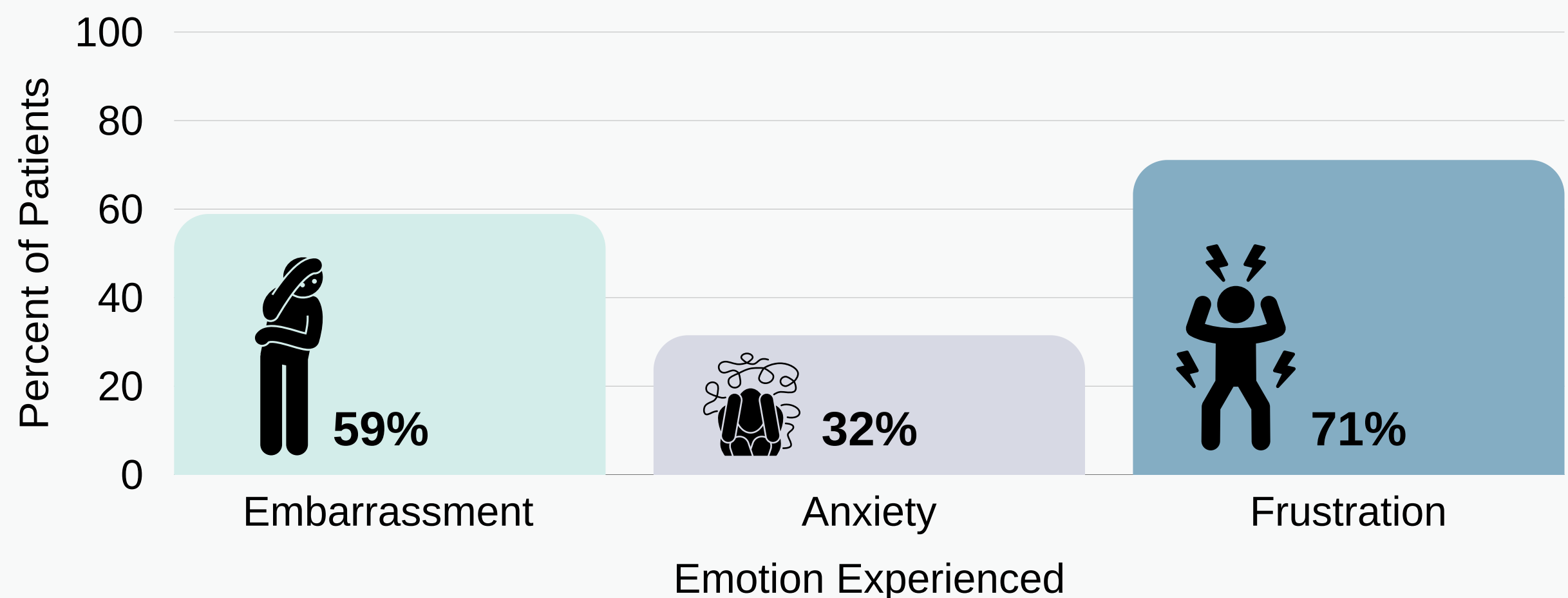
- 50% of patients reported that they feel heavily involved in decisions about their cough treatment and care

- 63% of patients reported having no relief or only partial/somewhat relief with treatments that they are currently using or have tried in the past

Social, Emotional, Daily Life, and Long-Term Impacts

- 48% of patients reported that cough interferes with their ability to do things in their daily routine sometimes, often, or daily
- 46% of patients reported fatigue or exhaustion as a result of their cough
- 45% of patients reported that their cough sometimes, often, or always makes them avoid social situations
- 16% of patients reported that their ability to maintain physical or intimate relationships has been significantly or extremely affected by their cough

Figure 3. Patient-Reported Emotional Impact of Chronic Cough



Conclusions

- In this study, more patients reported a worse cough severity when asked about their cough in the last 24 hours than at the onset of their cough.
- Patients in this study reported that cough episodes are frequent, prolonged, and often accompanied by a persistent urge to cough that is rarely relieved by coughing itself.
- Patient-reported triggers of chronic cough are diverse and unpredictable, complicating management and patient coping strategies.
- Social, emotional, daily life, and long-term impacts of chronic cough were substantial, with many patients reporting fatigue, disruption to routine activities, social withdrawal, worry, frustration, embarrassment, and anxiety.
- There remains a major unmet need for effective, targeted treatments to address the many burdens chronic cough imposes on patients' lives.

References

- Lee J, White E, Freiheit E, Scholand MB, Strek ME, Podolanczuk AJ, Patel NM, Bascom R, Belloli E, Bhatt N, Bhorade S. Cough-specific quality of life predicts disease progression among patients with interstitial lung disease: data from the Pulmonary Fibrosis Foundation Patient Registry. Chest. 2022 Sep 1;162(3):603-13.
- Ryerson CJ et al. Resp 2011 doi: 10.1111/j.1440-1843.2011.01996.x
- Vigeland CL et al. Respir Med. 2017;123:98-104. doi: 10.1016/j.rmed.2016.12.016