

Understanding the Experience of Patients with Primary Biliary Cholangitis and Pruritus

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Background

- Primary Biliary Cholangitis (PBC) is a rare progressive and chronic cholestatic liver disease, characterized by injury of the intrahepatic bile ducts.
- The most common symptoms of PBC are fatigue and pruritus.¹ The clinical course of pruritus often fluctuates with periods of relative decline and improvement in health-related quality of life (HRQoL).²
- First-line therapy with ursodeoxycholic acid is mostly ineffective at improving pruritus.³ Second-line therapy with obeticholic acid can worsen pruritus in some patients.⁴

Objective

The objective of this study was to capture the experiences of patients with PBC and pruritus directly from the perspectives of patients and clinicians, and develop a conceptual model of the signs, symptoms, and impacts of PBC.

Methods

- Qualitative concept elicitation interviews were conducted with clinicians and patients diagnosed with PBC who were experiencing pruritus. The patient interview portion of the study was approved by WIRB-Copernicus Group Institutional Review Board (WCG IRB), and individual patient consent was obtained prior to conducting the interviews.
- Four physician key opinion leaders with clinical experience diagnosing and treating patients with PBC participated in individual telephone interviews. Questions focused on: 1) patients' experiences with PBC; 2) distinctions between mild, moderate, and severe pruritus; and, 3) meaningful improvement and worsening of pruritus.
- Twenty patients with PBC and pruritus from the US and Canada participated in semi-structured telephone interviews. Questions focused on patients' perspectives of: 1) the signs and symptoms of PBC, including their experiences with pruritus; and, 2) the HRQoL impacts of disease and treatment.
- A trained moderator used an IRB-approved semi-structured discussion guide and qualitative interviewing techniques to elicit concepts. All telephone interviews were audio-recorded and transcribed with participants' permission.
- Transcripts were coded using a qualitative analysis software (Atlas.ti v8.0) and the codebook was refined using an iterative intercoder verification process and establishing intercoder agreement. Concept saturation was assessed after each wave of five interviews. A thematic approach to concept analysis was used to categorize patient quotes.

Results

- All interviewed clinicians specialized in hepatology and had 20-30 years of experience; one clinician also specialized in gastroenterology.
 - Clinicians reported that patients in their clinics were mostly White women aged 17-85 years and the majority were in their fifties.
- Patient demographics and clinical characteristics are presented in **Table 1**.
- Clinicians and patients reported a total of 41 signs/symptoms and 31 impacts related to PBC (see **Figure 2** and **Figure 3**).
 - 80% of signs/symptoms and 90% of impacts emerged during the first wave of five interviews.
 - Concept saturation of signs/symptoms and impacts was reached after 15 of the 20 patient interviews.
- The most salient symptoms were **pruritus (n=20, 100%, mean bothersome rating: 7.9)** and **fatigue (n=19, 95%, mean bothersome rating: 7.5)**, which patients attributed to PBC, to treatment or to both. The **most salient impacts were scratching (n=20, 100%) and sleep problems (n=19, 95%).***
 - Representative patient and clinician quotes are presented in **Figure 1**.

*Saliency is defined as frequency ≥ 50% mentions and average bothersome ratings ≥ 6.5 on a scale of 0 – 10.

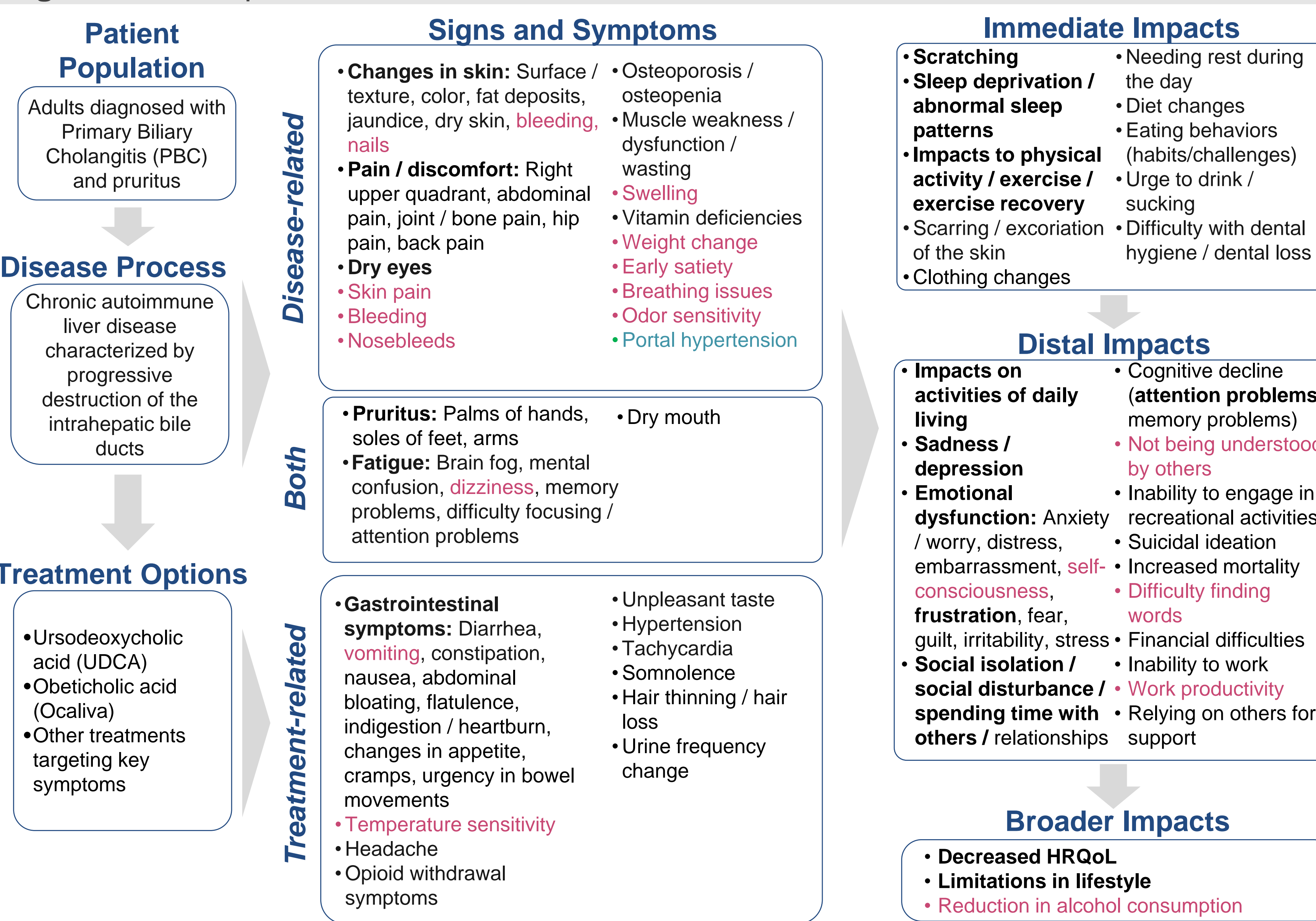
CONCLUSIONS

This qualitative study highlights the significant burden that PBC represents in the lives of patients. The most salient symptoms reported by patients were **pruritus and fatigue**. Pruritus makes it difficult to sleep at night and leads to mental and physical fatigue, which impedes patients' ability to function on a day-to-day basis. In some cases, the impacts of pruritus lead to **significant social and emotional disturbance**. The management of pruritus and fatigue is a critical unmet need for this patient population.

Figure 1. Patient and Clinician Descriptions of Symptoms and Impacts of PBC



Figure 2. Conceptual Model Based on Patient and Clinician Interviews



Note. Black: Concepts reported by patients and clinicians. Pink: Patient-reported concept. Blue: Clinician-reported only and identified as important. **Bold:** Concepts defined as salient [≥ 50% mentions and ≥ 6.5 average disturbance rating] Abbreviation: HRQoL: Health-Related Quality of Life

Figure 3. Most Common Signs, Symptoms, and Impacts (Reported by ≥ 40% of Patients)

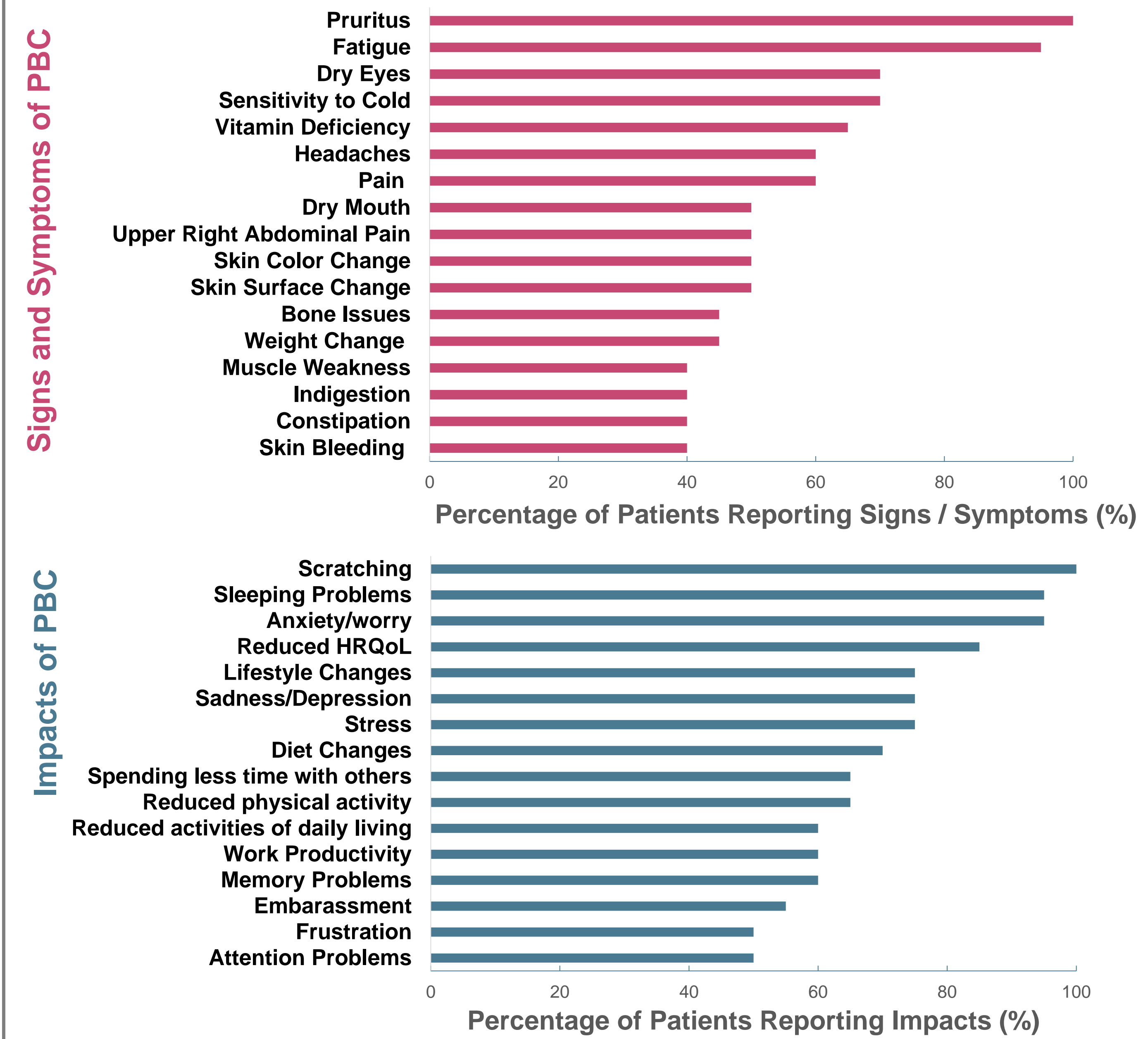


Table 1. Patient Demographics and Clinical Characteristics

Patient Demographics (N=20)		Clinical Characteristics (N=20)	
Demographics	Values	Characteristics	Values
Age		Time Since Diagnosis	
Mean (range)	50 (29-68) years	Median, Mean (range)	5 years, 10.7 years (0.4 – 23 years)
Sex		Pruritus Severity in the Past Month	
Female, n (%)	19 (95%)	Mild, n (%)	6 (30%)
Male, n (%)	1 (5%)	Moderate, n (%)	9 (45%)
Ethnicity		Severe, n (%)	5 (25%)
White, n (%)	20 (100%)	Disease Stage*	
Level of Education		Stage 1, n (%)	9 (45%)
High school / some college, n (%)	7 (35%)	Stage 2, n (%)	7 (35%)
Bachelor's degree, n (%)	12 (60%)	Stage 3, n (%)	2 (10%)
Higher level education (Master's, PhD, etc.), n (%)	1 (5%)	Stage 4, n (%)	2 (10%)
Employment Status		Treatments Received for PBC and / or Pruritus**	
Actively employed, n (%)	15 (75%)	Ursodeoxycholic acid, n (%)	20 (100%)
Unemployed and not looking for work at the moment, n (%)	4 (20%)	Obeticholic acid, n (%)	6 (30%)
Retired, n (%)	1 (5%)	Cholestyramine, n (%)	4 (20%)
		Rifampin, n (%)	3 (15%)
		Rifaximin, n (%)	2 (10%)
		Bezafibrate, n (%)	1 (5%)

*Stage 1: portal stage; Stage 2: periportal stage; Stage 3: septal stage; Stage 4: biliary cirrhosis stage; self-reported by patients and confirmed via medical records or confirmation of diagnosis when possible
**Confirmed by as reported by patients; patients may have received more than one treatment

Author Contributions: Substantial contributions to study conception/design, or acquisition/analysis/interpretation of data: CL, BW, FS, PS, NA, CZ, JD, CA, DV, JS; Drafting of the publication, or revising it critically for important intellectual content: CL, BW, FS, PS, NA, CZ, JD, CA, DV, JS; Final approval of the publication: CL, BW, FS, PS, NA, CZ, JD, CA, DV, JS.

Disclosures: CL: Research Grants: Calliditas, Cara Therapeutics, Cymbay, Escient, Genfit, GSK, HighTide, Intercept, Ipsen, Mirum, Target RWE, Zydus; Consultant: Calliditas, Cymbay, Intercept, Ipsen, GSK; BW: Employee of IQVIA; FS: Employee of IQVIA; PS: Employee of Ipsen; NA: Employee of Ipsen; CZ: Employee of Ipsen; JD: Employee of GENFIT Corp.; CA: Employee of GENFIT Corp.; DV: Employee and stockholder of GENFIT Corp.; JS: Consultant: Apollo Endosurgery, AGED diagnostics, Bayer, Boehringer Ingelheim, Gilead Sciences, GSK, Intercept Pharmaceuticals, Ipsen, Inventiva Pharma, Madrigal, MSD, Northsea Therapeutics, Novartis, Novo Nordisk, Pfizer, Roche, Siemens

Healthineers; Research Funding: Gilead Sciences, Boehringer Ingelheim, Siemens Healthcare GmbH; Speaker Honorarium: Boehringer Ingelheim, Echosens, MedPublico GmbH, Histoindex, Madrigal Pharmaceuticals, Novo Nordisk.

Acknowledgements The authors thank all patients involved in the study, as well as their caregivers, care team, investigators and research staff at participating institutions.

Medical Writing Support The authors thank Michelle Mao of IQVIA, U.S. for providing medical writing and design support, which was sponsored by GENFIT and Shimalia Siddiqui, U.K., Oliver Palmer, U.K., and Grace Young, U.K. of Costello Medical for editorial support, which was sponsored by Ipsen in accordance with Good Publication Practice guidelines (GPP3).

Abbreviations

PBC: Primary Biliary Cholangitis; HRQoL: Health-Related Quality of Life; WCG IRB: WIRB-Copernicus Group Institutional Review Board

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