

# Sleep disturbance due to pruritus is associated with anxiety, depression, and worse quality of life: evidence for management of pruritus and sleep in chronic liver disease

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## Background

- Pruritus (itch) is common in chronic liver diseases and is even more common in cholestatic liver diseases such as PBC<sup>1</sup>
- Pruritus, especially severe pruritus, has been associated with depression<sup>2</sup> including in PBC<sup>3</sup>
  - Severe pruritus in PBC also leads to poorer HRQoL, which is often worse in the proportion of patients who experience depression alongside severe pruritus<sup>3</sup>
- Severe sleep interference is common in patients with PBC and severe pruritus, and impacts HRQoL<sup>3-5</sup>
  - In the Phase 2b GLIMMER study (NCT02966834) in patients with PBC, pruritus was associated with sleep disturbance<sup>3,5,6</sup>
  - Change in pruritus severity was also strongly correlated (post hoc) with change in sleep interference, regardless of treatment group<sup>6</sup>
- However, the consequences of sleep disturbance due to pruritus have not been well described in the literature to date

## Results

Figure 1: Systematic literature review and meta-analyses: methods and description of studies identified/included

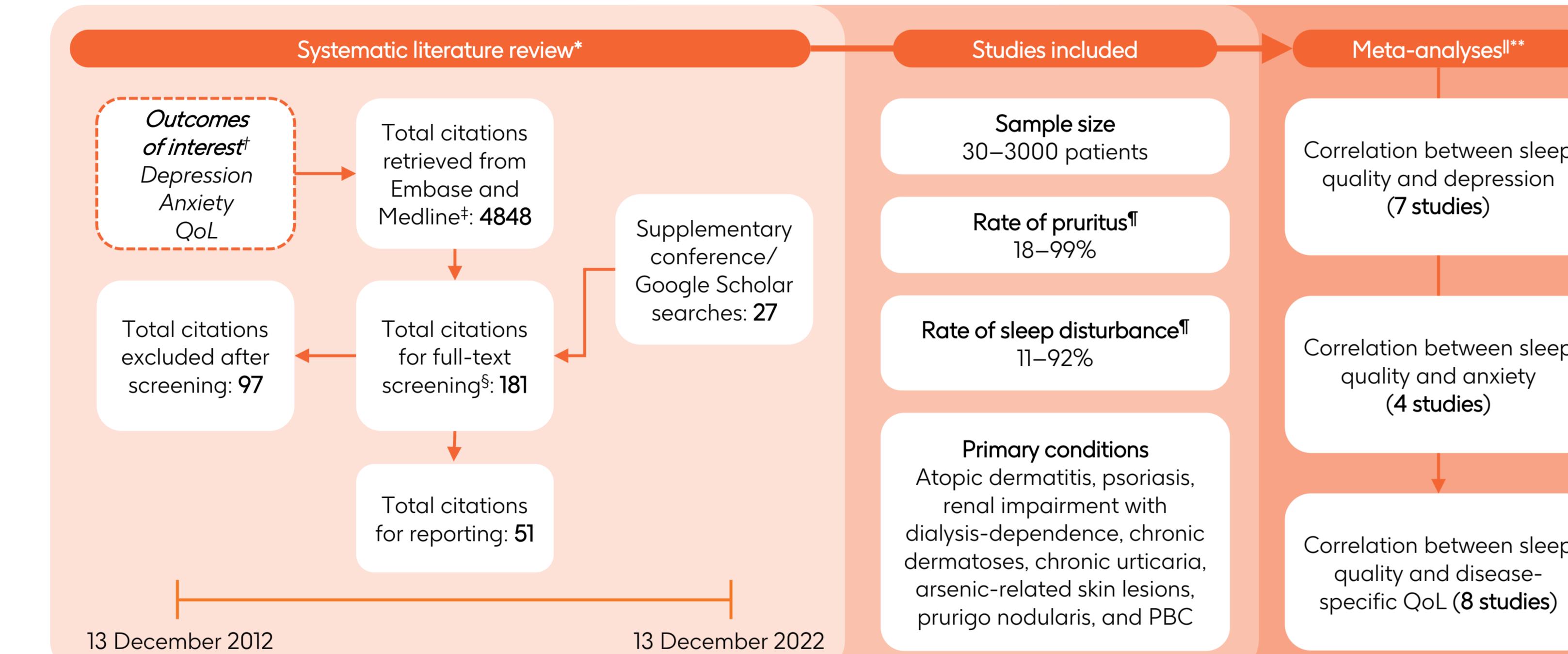
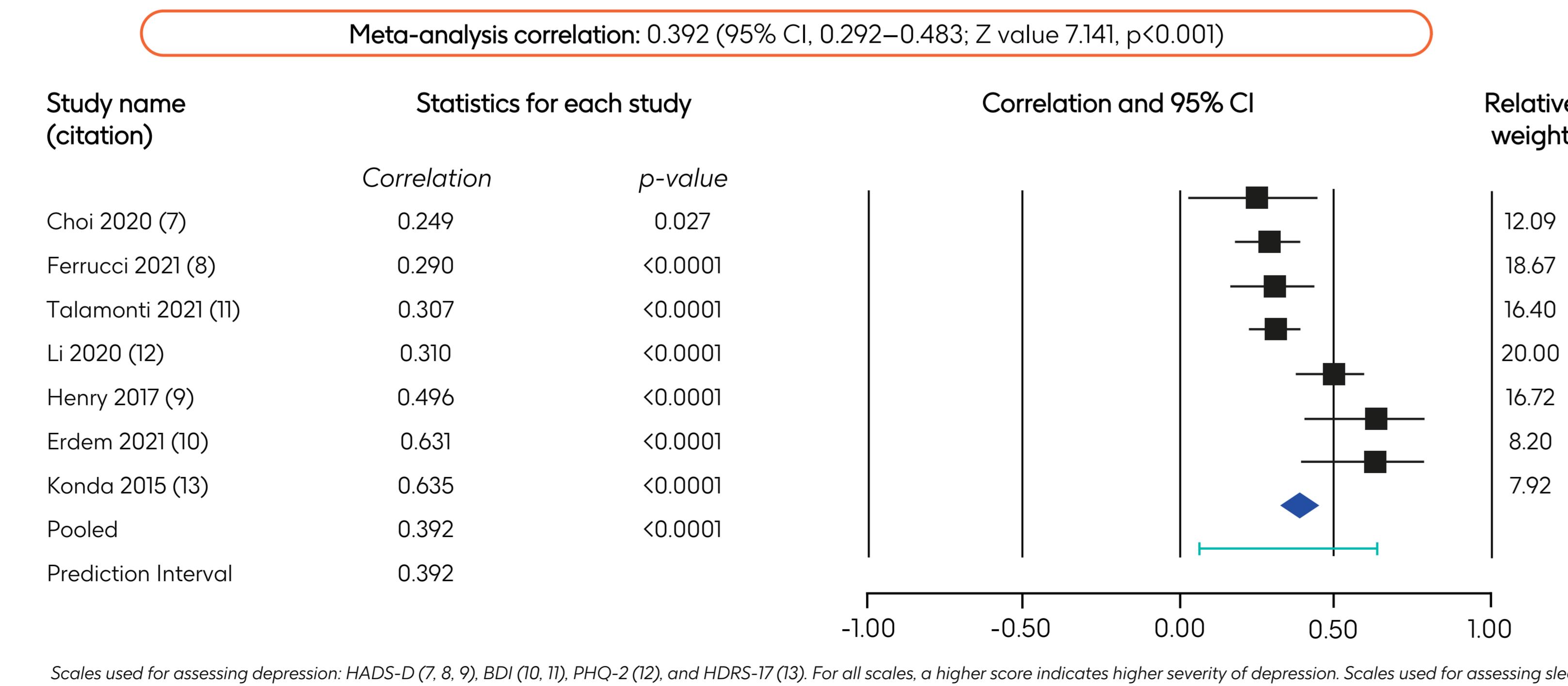


Figure 2: Lower sleep quality was moderately associated with more severe depression  
Meta-analysis correlation: 0.392 (95% CI, 0.292–0.483; Z value 7.141, p<0.001)



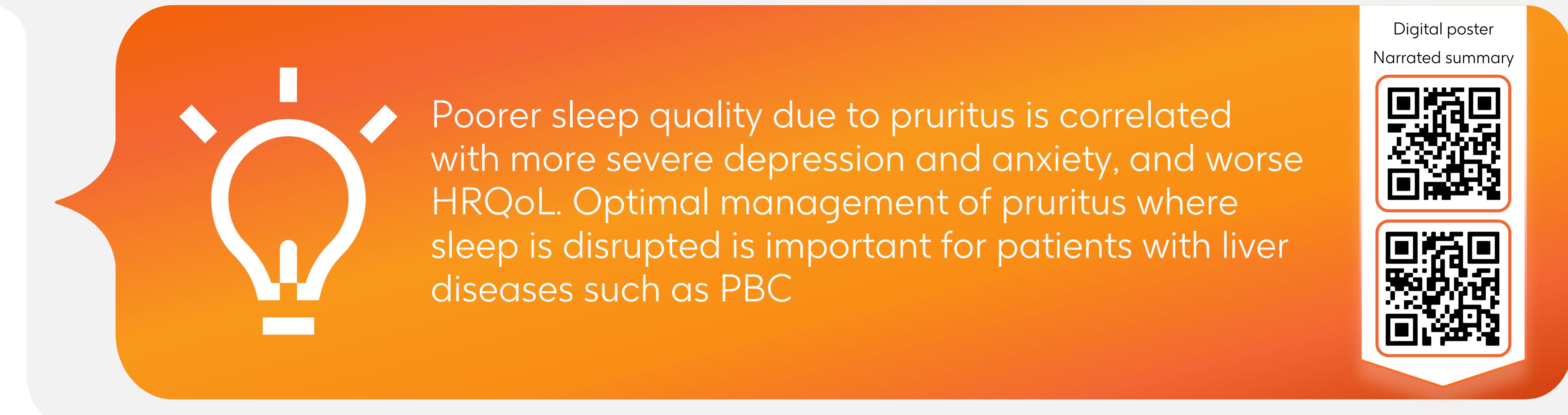
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## Abbreviations

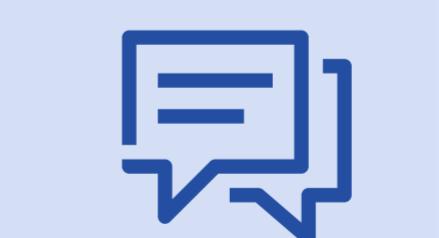
BDI, Beck Depression Inventory II; CI, confidence interval; DLQI, Dermatology Life Quality Index; GAD-2, Generalized Anxiety Disorder-2; HADS-A, Hospital Anxiety and Depression Scale – Anxiety subscale; HADS-D, Hospital Anxiety and Depression Scale – Depression subscale; HDRS-17, Hamilton Depression Rating Scale-17; HRQoL, health-related quality of life; ISI, Insomnia Severity Index; PBC, primary biliary cholangitis; PHQ-2, Patient Health Questionnaire-2; PSA-QoL, Psoriatic Arthritis Quality of Life; PSQI, Pittsburgh Sleep Quality Index; QoL, quality of life; SO-NRS, Sleep Quality Numeric Rating Scale; VAS, Visual Analogue Scale

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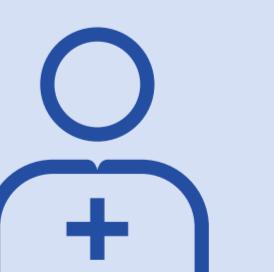


## Conclusions

Poorer sleep quality due to pruritus secondary to any medical condition is correlated with depression, anxiety and worse disease-specific QoL



Given this widespread impact of sleep disturbance on mental health and daily life, healthcare professionals should discuss pruritus-related sleep disturbance with their patients



Optimal management of pruritus, especially when sleep is disrupted, is important for patients with chronic liver diseases such as PBC

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