

Introduction

Dry eye is a chronic disease, affecting **up to 15%** of adults worldwide. It causes persistent ocular surface inflammation and damage, associated with **debilitating symptoms**¹ (e.g., pain, irritation, blurred vision, and visual fatigue), which significantly impairs **health-related quality of life** (HRQoL)^{2,3}.

Despite its impact, the burden of DED remains insufficiently recognized, with **limited and adequate patient care**^{4,5}.

Objectives

- To evaluate the **burden of DED** and its impact on **quality of life**
- To estimate a **utility score based on the severity of the disease** in adult DED patients in France

Methods

This multicenter, cross-sectional, observational study used both **DED-specific** (Ocular Surface Disease Index, OSDI) and **generic** (EQ-5D-5L) **patient-reported outcome** (PRO) measures. The main inclusion criteria were as follows:

- Adults (≥ 18 years) diagnosed with DED (based on DEWS II diagnosis methodology report⁶), and
- Newly diagnosed with DED, or
- Unsatisfied with current DED treatment, or
- DED but not treated for at least 1 month prior to inclusion

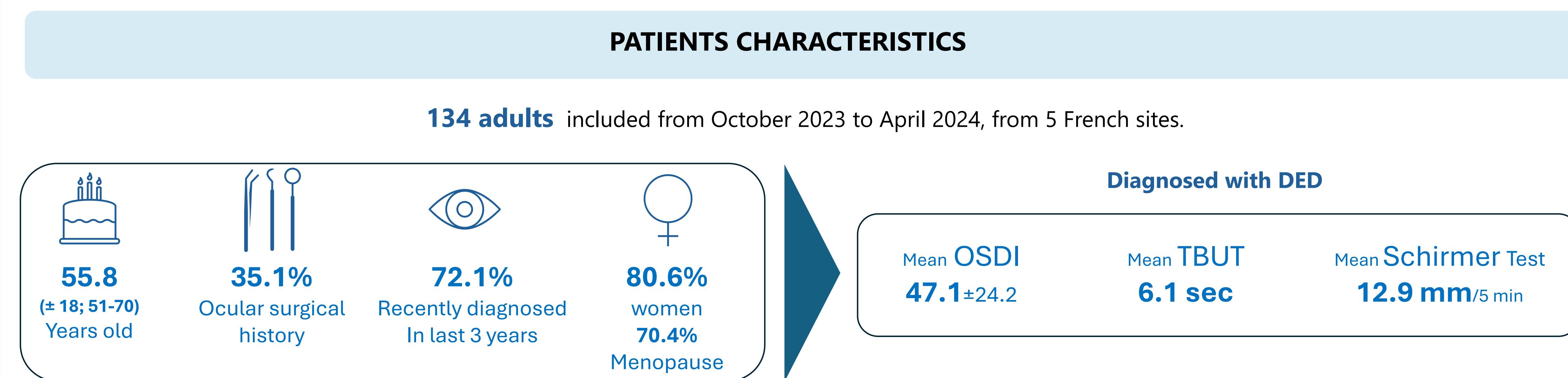
The **OSDI** is a widely recognized and validated questionnaire for assessing the severity of DED, with scores ranging from 0 to 100, with higher scores indicating greater disability. We classify disease severity into 3 subgroups to better reflect extreme symptoms burden: **non severe** (OSDI <33), **severe** (OSDI 33-59) and **very severe** (OSDI ≥ 60).

The **EQ-5D-5L** is a standardized and validated questionnaire used for the quality-adjusted life year (QALY). The model is recognized by the French Health Authority (HAS). It includes **5 dimensions** (anxiety/depression, mobility, pain/discomfort, self-care, usual activities), each rated on **5 levels of severity** (1=none; 5=unable to/extreme problems), producing a 5-digit code representing patient health state. It is then **converted into a single utility score** using the French value set⁷. This utility index is anchored **between 0 (death)** and **1 (perfect health)**.

The **EQ-5D** visual analogue scale (VAS) score reflects the **global perception of health status** of patients with DED, ranging from **0** (worst imaginable health state) to **100** (best imaginable health state).

Key results

- **134 DED adults** were enrolled
- **Mean OSDI score was 47.1**
- **Mean EQ-5D utility score was 0.84**
- **Mean EQ-VAS score was 74.1**
- The mean utility score was **0.66** for **very severe DED patients**, **0.89** for **severe DED patients** and **0.94** for **non-severe DED** ($p < 0.0001$).
- **Pain/discomfort and anxiety/depression** were the most impaired EQ-5D dimensions in patients with severe DED.



QoL results (EQ-5D)

Table 3: EQ-5D-5L Utility score and EQ-5D VAS score

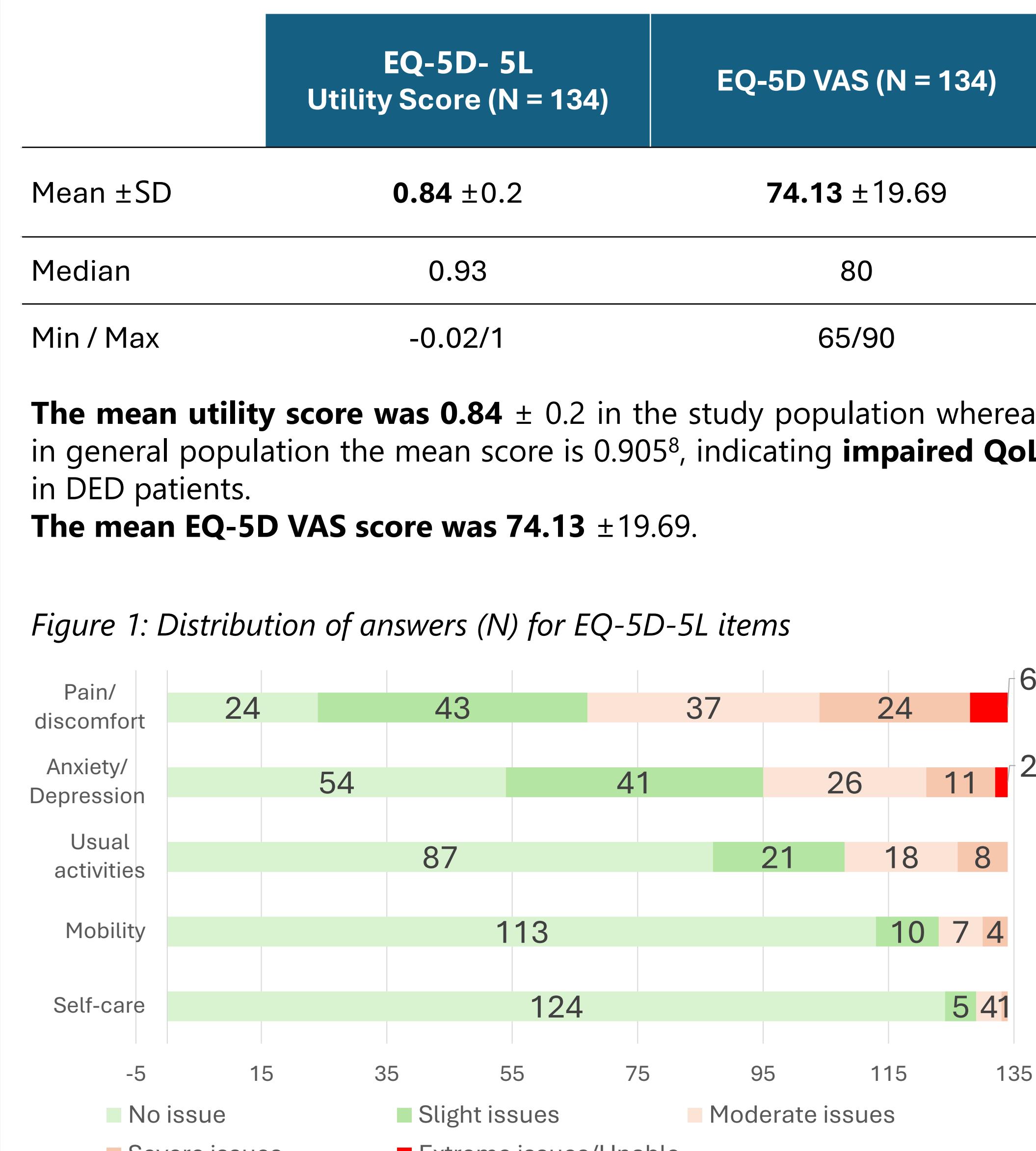
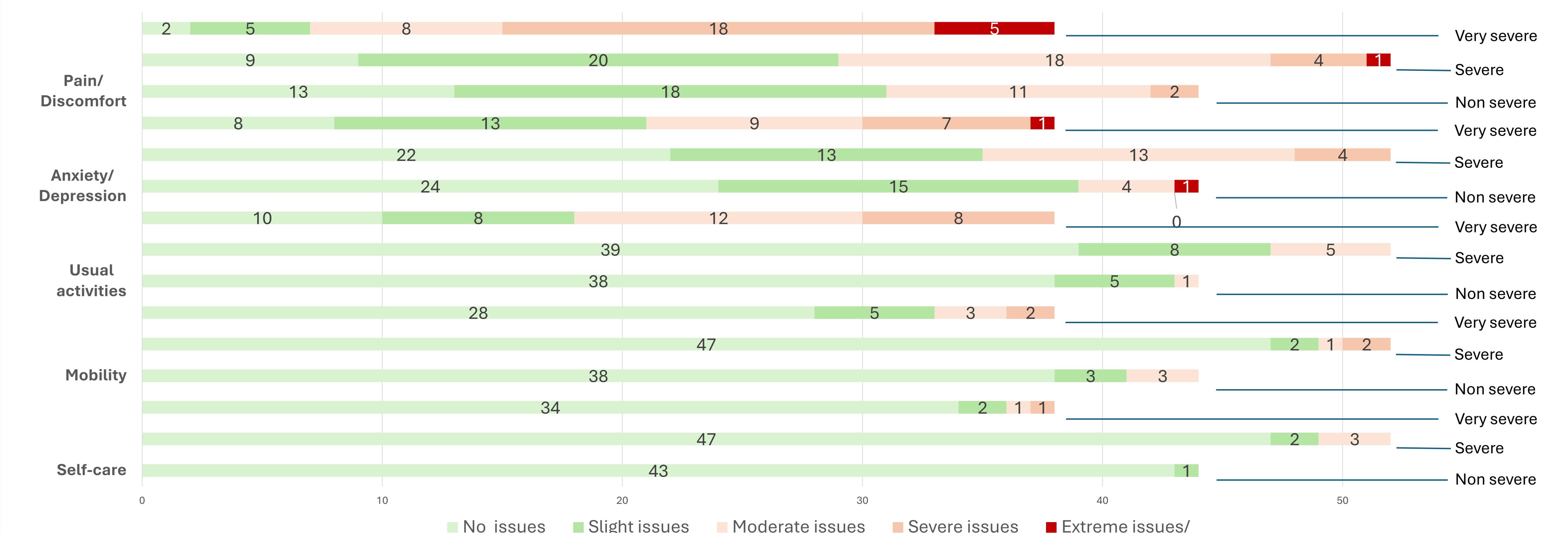


Figure 1: Distribution of answers (N) for EQ-5D-5L items

Pain/discomfort and anxiety/depression were the most impaired EQ-5D dimensions in DED patients, whereas mobility and self-care dimensions were largely not impacted.

Figure 2 – Distribution of answers (N) for each EQ-5D-5L dimensions by OSDI severity classes



Conclusion

DED has a **substantial impact on patients' quality of life**, particularly regarding **pain, emotional well-being, and daily functioning**. These findings highlight the importance of incorporating both DED-specific and generic HRQoL measures when evaluating DED burden and treatment outcomes.

The results also emphasize the **need for patient-centered approaches in DED management and health technology assessment**.

Références / Abbreviations

- 1.Craig et al. 2017 ; 2.Miljanovic et al. 2007 ; 3.Vehof et al. 2018 ; 4.Gomes et al. 2019 ; 5.Cheng-Wai et al. 2024 ; 6.Wolffsohn et al. 2017 ; 7.Hernández-Alava et al. 2021 ; 8.Gauthier et al. 2023

DED: Dry Eye Disease ; **HRQoL:** Health Related Quality of Life ; **OSDI:** Ocular Surface Disease Index ; **PRO:** Patient Reported Outcomes ; **DEWS II:** Dry Eye Workshop ; **QoL:** Quality of Life ; **e-CRF:** electronic Case Report Form ; **EQ-5D-5L:** EuroQol 5 Dimensions, 5 levels ; **VAS:** Visual Analogue Scale ; **TBUT:** Tear Break Up Time.

Contact information and disclosure

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This study is sponsored by **Laboratoires Théa** and was conducted with the company **CEMKA**.

Specific thanks

MR-004 study registered with HDH with the number **F20230510172800**

Thank you to the **HDH** teams for their work and their involvement in projects of this type. Thank you to all the **CEMKA** teams for their involvement during the study, special thank you to **Sandrine BAFFERT** and **Thelma ARCELIN**. Thank you to **Tiffany DESPREZ** for her advices and help in developing this poster. Thank you to **Alice BODEVEIX** and **Morgan HEMON** & **all Laboratoires Théa** teams for the support and advices.