

## Oral Health-Related Quality of Life Among Women with Temporomandibular Disorders and Hypermobile Ehlers-Danlos Syndrome or Hypermobility Spectrum Disorder

**Negin Yekkalam Balfe**

Department of Odontology, Orofacial pain and Jaw function, Umeå University, Sweden, 901 89 Umeå

**Kirsi Sipilä**

Research Unit of Population Health, University of Oulu, Oulu, Finland, and Medical Research Center Oulu, Oulu University Hospital and University of Oulu, Oulu, Finland

**Mehmed Novo**

Department of Community Medicine and Rehabilitation, Rehabilitation Medicine, Umeå University, 905 87 Umeå, Sweden

**Daniel Reissmann**

Department of Prosthodontics and Biomaterials, University Hospital Leipzig, 04103 Leipzig, Germany

**Marcel Hanisch**

Department of Oral and Maxillofacial Surgery, Research Unit Rare Diseases with Orofacial Manifestations (RDOM), University Hospital Münster, Waldeyerstraße 30, 48149 Münster, Germany

**Ole Oelerich**

Department of Prosthodontics, University Hospital Münster, Waldeyerstraße 30, 48149 Münster, Germany

### Abstract

People with hypermobile Ehlers-Danlos syndrome (hEDS) or hypermobility spectrum disorders (HSDs) are at greater risk of developing temporomandibular disorders (TMDs), perhaps due to the general joint hypermobility. There is, however, no information on how oral health-related quality of life (OHRQoL) is affected in people with hEDS or HSD with TMD. The aim was to assess OHRQoL via the 14-item, short version Oral Health Impact Profile (OHIP-14), as well as associated risk factors in women with TMD symptoms and confirmed hEDS or HSD.

**Methods:** A digital questionnaire was sent to members of The Swedish National EDS Association who reported having a EDS or HSD diagnosis in the health care system during January -March 2022. Then, a sample of 133 women with confirmed hEDS or HSD and TMD symptoms was constructed, and information on the following variables was collected: TMD symptoms, age, general and oral health-related factors, comorbid symptoms, and psychological factors. Linear regression analysis was conducted to investigate the association between these variables and the OHIP-14 summary score as the outcome.

**Results:** Most participants reported TMD pain symptoms (93.9%), temporomandibular joint clicking (89.5%), and crepitation (55.6%). The mean (SD) total OHIP-14 summary score was 21.0 (13.2). Oral function had the lowest impact (2.0 [2.4]) and orofacial pain had the highest impact on OHRQoL (3.9 [2.5]). Self-reported bruxism, poor general health, and comorbid symptoms were significantly associated with impaired OHRQoL.

**Conclusions:** Women with confirmed hEDS or HSD and TMD symptoms have a considerably impaired OHRQoL.

### Keywords

Ehlers-Danlos syndrome; Oral Health Impact Profile; Temporomandibular disorders; hypermobility spectrum disorders; oral health-related quality of life.