

## **Dysphagia Research Society Meeting 2025 Abstract Submission**

**Authors:** Longnecker D, Almazan E, Hinojosa O, Furuya H, Howe R, Yang M, Carnaby G

**Title:** Intervention for Upper Esophageal Sphincter Dysfunction: A Systematic Review

**Purpose:** Upper esophageal sphincter (UES) dysfunction, defined as inappropriate opening or failed relaxation of the UES during swallowing, is a common cause of dysphagia. The primary aim of this review was to assess UES intervention trends and their impact on patient outcomes.

**Methods:** The search strategy development was completed with a librarian (RH). Medical Subject Headings (MeSH) and keywords included (a) anatomic landmark (upper esophageal sphincter, cricopharyngeus, pharyngoesophageal segment); (b) disorder of the UES (dysfunction, spasm, hypertonia); (c) intervention modalities (Botox, dilation, myotomy); and (d) medical diagnosis (oropharyngeal dysphagia). Relevant records were sourced from CINAHL (EBSCOhost), PubMed, Scopus, Clin Trials, and ProQuest Nursing/Allied Health databases from 1995 to February 2024. Titles, abstracts, and full-text reports were screened to determine eligibility. Data extraction included participant diagnosis, pre-intervention assessments, UES interventions, post-intervention outcomes, study design and sample characteristics. The Joanna Briggs Institute (JBI) framework completed a qualitative rigor analysis.

**Results:** Overall, 700 records were identified by database search. After deduplication, 686 records remained. A total of 562 records were excluded after title/abstract screening, leaving 124 full-text articles for review. Of those, 41 were excluded after review, leaving 83 for extraction. Included articles were case series (40%), case studies (16%), or retrospective cohort studies (11%). Results demonstrated significant heterogeneity by population, etiology, severity, duration of dysfunction, pre-intervention assessment, and outcome measurement. UES dysfunction was confirmed by clinical data (23%), EMG/HRM (36%), or MBS/ FEES (41%). While some articles report improved outcomes from interventions, numerous studies reported a failed response. Targeted intervention by causal category of UES dysfunction or the addition of swallowing intervention was uncommon (<13%). Rigor analysis indicated low overall study quality.

**Conclusion:** Significant variability in patient selection, assessment, intervention, and outcome highlights the need for targeted procedures. Further rigorous prospective investigations should elucidate factors for improved patient selection, procedure, dose, and outcome.

**Abstract accepted for Annual Dysphagia Research Society meeting 2025, Philadelphia, Pennsylvania, March 25-28, 2025**