BEHAVIOURAL INTERVENTIONS TARGETING UPPER ESOPHAGEAL SPHINCTER OPENING – A SCOPING REVIEW



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Background

- The upper esophageal sphincter (UES) plays a central role in safe swallowing.
- Impaired UES opening is commonly observed in individuals presenting with dysphagia
- Several behavioural interventions are available to improve bolus passage across the UES during swallowing.
- The aim of this scoping review was to systematically map these interventions and to appraise the available evidence base for their effectiveness.
 - Scoping review of six electronic databases (MEDLINE, CINAHL, Ovid Emcare, Web of Science, SCOPUS, ProQuest)
- Inclusion Criteria: We included studies that reported on behavioral UES interventions, assessed UES-specific outcome measures and were published in English
- Intervention types and study outcomes were qualitatively characterized into key categories relating to intervention type, study population, efficacy and study quality
- Study quality was assessed via the Joanna Briggs Institute and GRADE (Grading of Recommendations, Assessment, Development and Evaluation) frameworks

Modified Balloon

Dilation (n=3)

n=2 reported increased

Results

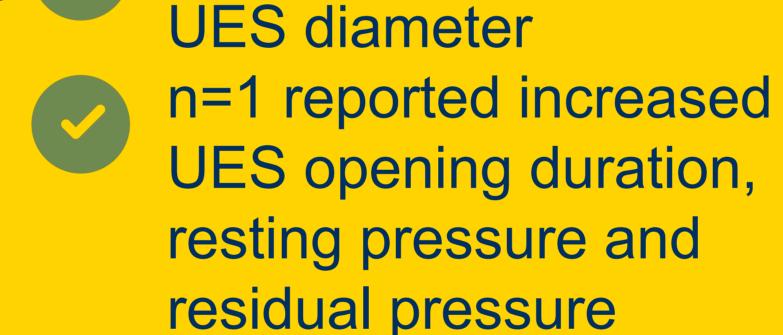
Methods

Main Types of Behavioral UES Interventions (n=18 studies)

Floor of Mouth **exercise** (n=10 studies)

Mendelsohn Manoeuvre (n=2)





Lingual Exercise (n=2)

n=1 reported success decreasing UES nadir pressure

Mixed Exercise (n=1)

n=1 reported success in maintaining UES opening diameter post-chemoradiation therapy

Shaker Exercise (n=6)

- n=5 reported increased **UES** diameter
- n=1 reported increased UES cross-sectional area

Other Strengthening Exercises (n=4)

n=3 reported increased UES diameter

Moderately Weak Evidence Base



Only 7/18 studies evaluated participants with demonstrated UES impairment



demonstrated UES impairment and clear reporting of methods.

In 15/18 studies, unclear reporting of participant training, treatment fidelity, dosage and/or reporting of methods



11/18 studies downgraded in quality following JBI & GRADE quality assessments

Conclusion

This comprehensive scoping review synthesised the evidence base for behavioural interventions that target UES impairment. While positive treatment outcomes have been reported for some outcome measures, common limitations included a lack of demonstrated UES impairment in study populations, unclear reporting of intervention procedures as well as overall moderately weak study quality. Future research is needed on larger populations with

