

iCAHE JC Critical Appraisal Summary

Journal Club Details

Journal Club location	Flinders Medical Centre
JC Facilitator	Brianna Davey
JC Discipline	Speech Pathology

Background

NA

Clinical Scenario

NA

Review Question/PICO/PACO

P: NA

I: NA

C: NA

O: NA

Article/Paper

Brooks M, McLaughlin E, Shields N. Expiratory muscle strength training improves swallowing and respiratory outcomes in people with dysphagia: a systematic review. International Journal of Speech-Language Pathology. 2017 Oct 25:1-2.

Please note: due to copyright regulations CAHE is unable to supply a copy of the critically appraised paper/article. If you are an employee of the South Australian government you can obtain a copy of articles from the [DOHSA librarian](#).

Article Methodology: **Systematic Review**

Click [here](#) to access critical appraisal tool



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CONTACTS

www.unisa.edu.au/cahe
 iCAHE@unisa.edu.au
 Telephone: +61 8 830 22099
 Fax: +61 8 830 22853

University of South Australia
 GPO Box 2471
 Adelaide SA 5001
 Australia

CRICOS Provider Number
 00121B



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Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p>Did the review address a clearly focused question?</p> <p>To investigate the effects of expiratory muscle strength training on communication and swallowing outcomes in adults with acquired motor based communication and/or swallowing difficulties of any aetiology</p>
2	✓			<p>Did the authors look for the appropriate sort of papers?</p> <p>Studies were eligible for inclusion if they met the following criteria: (1) participants were aged 18 years or older and had a diagnosed or self-reported communication disorder (voice and/or motor speech) and/or swallowing dysfunction; (2) the intervention was expiratory muscle strength training of at least 4-weeks duration with no concurrent interventions; (3) at least one outcome measure was related to swallowing, communication, respiratory function or quality of life; (4) the article was published in English; and (5) the study design was a randomised controlled study, non-randomised controlled study, pre-test/post-test study or cohort study. Studies were excluded if they included only healthy participants, or if only a single session of expiratory muscle strength training was completed.</p> <p>Is it worth continuing? YES</p>
3	✓			<p>Do you think the important, relevant studies were included?</p> <p>CINAHL, MEDLINE, EMBASE, SPEECHBYTE and AMED databases from conception and PUBMED from 2010.</p> <p>Two concepts related to the research questions were used to construct the search strategy: (1) terms related to communication and swallowing disorders treated by speech–language pathologists and (2) expiratory muscle strength training</p>
4	✓			<p>Did the review’s authors do enough to assess the quality of the included studies?</p> <p>Two researchers independently applied the PEDro scale to rate the methodological quality of the included studies. The PEDro scale is a validated quality assessment tool for randomised controlled trials. Eleven items are rated as either meeting or not meeting the criteria; a maximum score of 10 is possible as the first item (eligibility criteria) is not scored. The 11 items are: eligibility criteria, random allocation, concealed allocation, baseline comparability, blinding of assessors, adequate follow-up, intention-to-treat analysis, between group comparisons and point estimates and variability. A study with a PEDro score of 6 is considered to be high quality. Disagreement between the reviewers was resolved through discussion until a consensus was reached</p>
5	✓			<p>If the results of the review have been combined, was it reasonable to do so?</p> <p>Meta-analysis was not performed due to the heterogeneity of outcomes measures used.</p>
6				<p>What are the overall results of the reviews?</p> <p>Seven articles reporting data from five studies were included. Preliminary data suggests expiratory muscle strength training improved airway safety during swallowing in people with dysphagia and increased the strength of the expiratory muscles in all patient groups. There was little evidence to suggest changes in communication outcomes after expiratory muscle strength training. Speech–language pathologists might consider using expiratory muscle strength training to improve airway safety in adults with swallowing disorders.</p>

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7				How precise are the results? 95% confidence intervals and p values were reported for included studies.
8			Journal Club to discuss	Can the results be applied to the local population? CONTEXT ASSESSMENT (please refer to attached document) <ul style="list-style-type: none"> - Infrastructure - Available workforce (? Need for substitute workforce?) - Patient characteristics - Training and upskilling, accreditation, recognition - Ready access to information sources - Legislative, financial & systems support - Health service system, referral processes and decision-makers - Communication - Best ways of presenting information to different end-users - Availability of relevant equipment - Cultural acceptability of recommendations - Others
9				Were all important outcomes considered?
10				Are the benefits worth the harms and costs?
11				What do the study findings mean to practice (i.e. clinical practice, systems or processes)?
12				What are your next steps? ADOPT, CONTEXTUALISE, ADAPT And then (e.g. evaluate clinical practice against evidence-based recommendations; organise the next four journal club meetings around this topic to build the evidence base; organize training for staff, etc.)
13				What is required to implement these next steps?