Accessing the Dysphagia Research Literature and Reading it Critically

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KSHA Conference Presentation
Resources: ASHA Practice Portal

- Evidence Maps (systematic reviews and guidelines only)
  - Dysphagia – Adult
    https://www.asha.org/Practice-Portal/Clinical-Topics/Adult-Dysphagia/
  - Dysphagia – Pediatric
    https://www.asha.org/Practice-Portal/Clinical-Topics/Pediatric-Dysphagia/
Resources: ASHA eTOCs (Electronic Table of Contents)

- You can sign up to get the eTOCs sent to you automatically via e-mail when they are released.
  - www.asha.org
- Log in to your ASHA account, go to “member center,” go to “account information,” go to “manage your ASHA e-mail preferences,” go to “ASHAwire eTOCs and alerts” (bottom of the page).
- By reading the eTOC, you can see whether there is a relevant article you want to read from one of the ASHA journals or Perspectives publications.
Clinical Focus

Establishing a Group Educational Session for Hyperacusis Patients:
Ann E. Perreau, Richard S. Tyler, Patricia C. Mancone, Shelley Witt and Mohamed Salah Eldandy
Abstract | Full Text | PDF (140.9 KB)

Meeting the Joint Committee on Infant Hearing Standards in a Large Metropolitan Children’s Hospital: Barriers and Next Steps
Rebecca A. Rawd, Johanna Dropez, and Kristin M. Uhler
Abstract | Full Text | PDF (184.5 KB)
Resources: ASHA SIG 13

- SIG (Special Interest Group) 13 is “Swallowing and Swallowing Disorders”
- [https://www.asha.org/SIG/](https://www.asha.org/SIG/)
- SIG 13 has a Perspectives publication
  - [https://www.asha.org/publications/](https://www.asha.org/publications/)
- If you are a member of any SIG you can access any Perspectives publication
- You can earn CEUs by reading the Perspectives articles of the SIG to which you belong (i.e., you can earn CEUs for reading SIG 13’s Perspectives publications if you are a member of SIG 13)
Resources: ASHA SIG Online Communities

- https://www.asha.org/SIG/
  - Go to “Join a SIG,” then go to “SIG online communities,” then go to “SIG 13” (Discussions and Libraries sections)
- You can sign up to receive real time notifications or daily notifications (Daily Digest) from the SIG online communities
- Log in to your ASHA account (www.asha.org), go to “member center,” go to “account information,” go to “ASHA Community,” go to “Manage Your Subscription Settings,” go to “Notification Settings” and select “Daily Digest” or “Real Time”
Resources: speechBITE

- speechBITE = speech pathology database for best interventions and treatment efficacy
- www.speechbite.com
- This database includes treatment articles with different study designs (systematic reviews (includes meta-analyses), randomized controlled trials (RCTs), non-randomized controlled trials (non-RCTs), case series, single-case designs (experimental and non-experimental))
- The database includes treatment articles in all areas of speech-language pathology (e.g., dysphagia, fluency, AAC, child language, aphasia)
Resources: PubMed

- PubMed – database for biomedical literature
- Enter key words to search for articles on a particular topic
Resources: EBP Briefs

- EBP Briefs = Evidence-Based Practice Briefs
- EPB Briefs is an online open-access journal
- Published by Pearson
- The first issue was published in 2006
- Dysphagia content in Volume 12 (Issue 5, March 2018 and Issue 2, June 2017), Volume 11 (Issue 3, August 2016)
Most of the dysphagia research articles are NOT in the ASHA journals.

If you are searching for articles on a journal-by-journal basis, the ASHA journals will not yield a lot of hits.

Many articles on the topic of dysphagia are in the journal “Dysphagia”.

https://link.springer.com/journal/455

The journal “Dysphagia” can be accessed through the Dykes library at KUMC.
Analyzing the Results of Studies: ASHA Practice Portal

- Systematic reviews are rated in the Evidence Map section of the Practice Portal
  - Click on the “Read ASHA’s Article Summary” link associated with the systematic review
  - Read the “Article Quality Ratings – Indicators of Review Quality” section of the article summary

- Guidelines are rated in the Evidence Map section of the Practice Portal using the AGREE (Appraisal of Guidelines for Research and Evaluation) rating system
  - Click on the “Read ASHA’s Article Summary” link associated with the guideline
  - Read the “Article Quality Ratings – AGREE” section of the article summary
  - Only guidelines rated as “highly recommended” or “recommended with provisos” are included in the Evidence Maps

- Dysphagia – Adult: https://www.asha.org/Practice-Portal/Clinical-Topics/Adult-Dysphagia/
Studies in the speechBITE database are grouped according to the research design: systematic reviews (includes meta-analyses), randomized controlled trials, non-randomized controlled trials, case series, and single-case designs (experimental and non-experimental).

Currently, only the methodological quality of randomized controlled trials and non-randomized controlled trials are rated. They are rated using the PEDro-P rating system.

The PEDro-P is an 11-item rating scale. Eight items relating to internal validity and two relating to interpretability of findings are included in the score out of 10. The one item relating to external validity is not used in calculating the score. The higher the PEDro-P score, the higher the methodological quality.

www.speechBITE.com
The Informed SLP is a website (www.theinformedslp.com) created and owned by Meredith Harold (a KSHA member and VP for Speech-Language Pathology); there are three sections: Early Intervention, Pre-School and School-Age, and Adult.

SLPs review journal articles and write clinically relevant summaries that are posted on the website.

Most of the articles reviewed are child-focused.

Very recently (August 1, 2019), adult topics and lifespan medical topics (including dysphagia) began to be reviewed and summarized.

Natalie Douglas is the editor of the Adult section, and five SLPs are writing summaries of the articles (Kelly Zarifa, a KSHA member is one of the writers).

There is a cost to access the summaries ($84 annually for the Adult section).
Analyzing the Results of Studies: What Type of Significance is Addressed?

Four types of significance were described by Bothe and Richardson (2011) in the context of treatment studies*:

- **Statistical**: Do the Groups Differ?
- **Practical**: How Much Do the Groups Differ?
- **Clinical**: What Does the Difference Between Groups Mean?
- **Personal**: Did This Change Solve a Person’s Problem?

Analyzing the Results of Studies: Statistical Significance

- The question: Do the groups differ?
- Common tests of statistical significance are the t-test and the ANOVA
- The “p value” figures prominently
- If p < .05 (or whatever the p value is set to), the groups are significantly different from one another
- If p < .05, it means that the groups would be different by chance less than 5 times out of 100
- Example: Park et al. (2012) study www.speechBITE.com
- Discussion of limitations
Analyzing the Results of Studies: Practical Significance

- The question: How much do the groups differ?
- Measures of effect size are most often used to assess practical significance.
- The most common measure of effect size is Cohen’s $d$.
  - Small effect: $d \geq .2$; moderate effect: $d \geq .5$; large effect: $d \geq .8$
- Example: Drulla and Ludlow (2013) study [www.speechBITE.com](http://www.speechBITE.com)
- Discussion of limitations.
Analyzing the Results of Studies: Clinical Significance

- The question: What does the difference between groups mean?
- Clinical significance “refers to a value placed upon a result by a person” (p. 234)
- Clinical significance should be used when “[a] person is attempting to interpret, ascribe meaning to, or make judgement about the value of a test result, a matter of physical status, or a change or a difference between groups” (p. 234)
- Jacobson, Follette, and Revenstorf (1984) defined clinically significant change “as change that a) is in excess of that which could be expected by measurement error alone and b) represents movement from a dysfunctional range to a normal or functional range on the measure of interest” (p. 235)
Various formulae have been used to define a reliable change (part A)
Attempts have been made to distinguish between “functional” and “dysfunctional” distributions (part B)
We have to keep in mind that a return to normal function may not be realistic; thus, the following categories of reliable change have been proposed:
- Recovered
- Improved
- Unchanged
- Deteriorated

Discussion of limitations – includes that the researcher or clinician is usually the one making the determination of whether a clinically significant change has occurred
Analyzing the Results of Studies: Personal Significance

- The question: Did this change solve a person’s problem?
- Practical significance "refers to whether individual clients report feeling improvements that matter to them in the context of their own lives and, more importantly, whether they demonstrate functioning in ways that reflect improvements" (p. 236)
- Use a patient-reported outcome measure (PRO) to try to address personal significance
- There are quite a few PROs in the area of dysphagia
Analyzing the Results of Studies: Personal Significance (cont’d)


- Several dysphagia PROs were of high quality
  - MADS for achalasia
  - SWAL-QOL and SSQ for oropharyngeal dysphagia
  - PROMIS-GI for general dysphagia [www.nihpromis.org](http://www.nihpromis.org)
  - EORTC-QLQ-OG25 for esophageal cancer
  - ROMP-swallowing for Parkinson disease
  - DSQ-EoE for eosinophilic esophagitis
  - SOAL for total laryngectomy-related dysphagia

- Discussion of limitations of PROs