Evidence-Based Practice Committee: Updates and Resources for SLPs.

Illinois Speech Language Hearing Association - 2019
Evidence-Based Practice Committee: Updates and Resources for SLPs
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ISHA’s EBP Committee’s purpose

- The EBP committee of ISHA acts to inform and educate members and the public on matters related to evidence-based practice in the field of speech-language pathology. This includes evolving views on EBP, skills and resources affecting implementation of EBP, and practical ideas for incorporating EBP into clinical decision making.

Committee Activities 2018

- Submitted newsletters to ISHA on EBP topics
- Held EBP committee meeting at ISHA on 2/5/2018
- Committee chairs presented “How to Up your game” in generating evidence in your clinical practice” at ISHA convention
- Submitted resources on EBP for ISHA website

Resources for EBP: Pediatrics

- Making Sense of Interventions for children with developmental disorders: A guide for parents and professionals
  Caroline Bowen and Pamela Snow
- Distinguish scientifically reputable clinical treatments from pseudoscience
- Anecdotal evidence and personal experience - foundation interventions discussed and debunked
- Examples: CogMed - Working Memory training
  Baby Einstein - music and intelligence

ASHA’s Practice Portal

- https://www.asha.org/PRPDefault.aspx
- Navigation: practice portal> evidence maps
- Key steps in the EBP process

Social Media Resources for EBP

- https://www.facebook.com/groups/clinicalresearchslps/
- https://www.facebook.com/groups/EBPSLPs/
Recent studies regarding gestures in aphasia

- Recent study by Akhavan, Göksun, and Nozari (2017) revealed success using gesture to compensate for loss of spoken language as well as improve lexical retrieval in people with aphasia with intact comprehension and no comorbidities.
- Recent study by Rose, Mok, and Sekine (2017) explored the effectiveness of pantomime gesture in people with aphasia.
  - Listener comprehension was best when pantomime gesture was paired with aphasic speech as compared to gestures only or aphasic speech only.
  - Communicative effectiveness of pantomime gestures increased as the fluency of participants with aphasia decreased.

Questions to ask when evaluating the evidence and applying to clinical practice

- Does the patient have intact comprehension and executive function in order to participate successfully in treatment using gestures?
- Are gestures being trained for compensation in order to express a message through pantomime gesture?
- Are gestures being used as a means to facilitate word retrieval?
- Are gestures being used to promote patient’s comprehension?
- Does the patient need to produce or only observe the gesture?
- Can carryover be expected to trained targets? Can carryover be expected to untrained targets?

Traumatic Brain Injury (TBI): Use of artificial intelligence (AI)

- U.S. Department of Energy and University of California, San Francisco are currently leading a multiyear study.
- Goal of research is to create a predictive model to determine risk categories and prognosis.
- Analyzing brain imaging with artificial intelligence to diagnose and compare to a large dataset.
- “Connectome” or model of the structural connectivity of the human brain generated from MRI data using Department of Energy supercomputers.

Recent study: Using an artificial neural network to predict TBI

- Hal et al. (2018) studied TBI data from pediatric patients under the age of 18.
- Patients had TBI and admission head CT.
- Constructed artificial neural network (ANN) trained on clinical and radiologist-interpreted imaging metrics.
- Used ANN to predict clinically relevant TBI (CRTBI).
- First study to utilize AI to predict a CRTBI in a clinically meaningful manner.

How might this be meaningful to SLPs?

- Better prediction of prognosis to guide plan of care
- Likely more in-depth information regarding specific areas of brain damage to guide effective goal-setting
- New data and information to use for patient/family counseling and education
- Opens the door for future studies to further inform SLP evaluation and treatment

References


