Why we need evidencebased assessment in speech-language pathology and audiology



Meghan M. Davidson, Ph.D., CCC-SLP

This module is a component of the ASHA CRISP Committee's Evidence-Based Assessment Project.

Introduction

What's the problem?

Outline

What are some solutions?

Case studies

Summary





Introduction





(EBA)?

A clinical decision-making process for determining an assessment approach that integrates best available evidence from scientific research, clinical practice experience, and client preferences and characteristics (based on the E³BPdefinition from Dollaghan [2007]).



Why is EBA important/ relevant?



Evidence-Based Treatment

Evidence-Based Assessment



What's the problem?







57%

of SLPs report using psychometrics (validity and reliability) when selecting an assessment (Ogiela & Montzka, 2021).







Bias

in assessment impacts our decision-making



What are some solutions?



Here's a solution 1

Update instructional practices (Denman et al., 2023)



Here's a solution 2



Implement decision-making processes

(Daub et al., 2021; Denman, 2023)



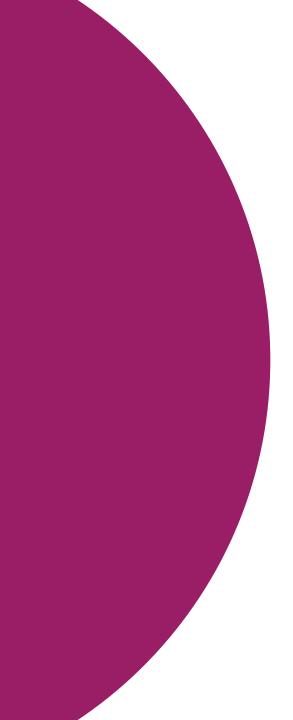
Here's a solution 3

Use the **SUM Process** to reduce bias in assessment. (CRISP, 2023)



Case Studies





3-year-old referred for delayed speech and language acquisition (only speaking in short, two-word phrases per parents)

• Background:

- Primarily Spanish speaking family recently moved to US
- High SES, high expectations for children

Initial Evaluation:

- Conducted in Spanish
- Play-based assessment completed
- Collected language sample & phonemic inventory
- Parents reported no concerns about hearing; did not test
- Parents reported the child ate well; did not do oralmech exam

Initial Intervention:

- Seen by evaluating SLP's practice for 1 year
- Child made minimal progress
- Family brought child into another clinic due to limited progress for second opinion



3-year-old referred for delayed speech and language acquisition (only speaking in short, two-word phrases per parents)

Second Evaluation:

- Comprehensive evaluation completed, including hearing screening & oral-motor assessment
- Child failed hearing screening and sent to audiology for comprehensive evaluation & recommendations
 - Found to have moderate sensorineural hearing loss
 - Fitted with hearing aids
- Additionally, evidence of motor coordination/ sequencing issues on oral-mechanism exam and speech production difficulties were found.

Second Intervention:

- Therapy program recommended was drastically different from the one the child previously received
 - Included auditory-verbal therapy techniques and motor planning speech approaches
- Child began to show progress immediately



75-year old with severe demyelinating polyradiculoneuropathy and respiratory distress referred for dysphagia evaluation

Background

- Male in mid-70s with demyelinating polyradiculoneuropathy admitted to medical ICU for respiratory distress
- SLP consulted for dysphagia
- Initial Evaluation
 - No issues noted during bedside swallow evaluation
- Initial Intervention
 - General diet and thin liquids recommended
- Outcome
 - SLP signed off



75-year old with severe demyelinating polyradiculoneuropathy and respiratory distress referred for dysphagia evaluation

 Patient transferred to Neurology service and SLP reevaluated for continued concerns about dysphagia

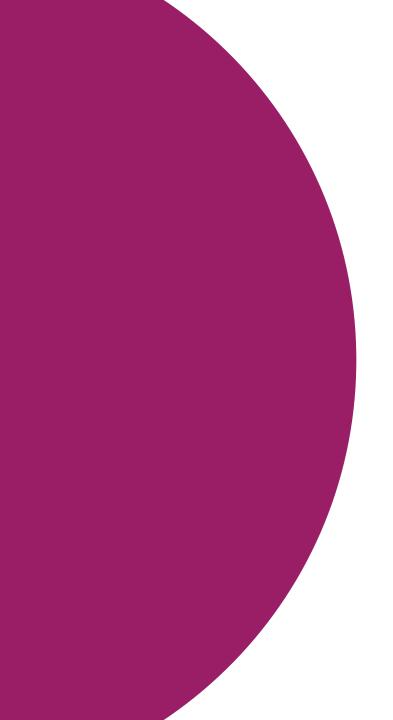
Second Evaluation

- Thorough chart review and interview with patient characterized nature of swallowing concerns
- Full oral mechanism examination completed, notable for new lingual fasciculations
- Mild dysarthria noted
- Video fluoroscopy swallow study (VFSS) performed which revealed aspiration of thin and mildly thickened liquids

Second Intervention

- Modified diet recommended
- Outcome
 - Risk for aspiration pneumonia reduced





Summary



Summary

- Evidence-based assessment is applying decision making processes to assessment approaches
- Numerous assessment problems in our field have been identified:
 - Over-reliance on informal discussion
 - Under-use of psychometrics
 - Poor understanding of diagnostic accuracy
 - Bias
- Some potential solutions include:
 - Update instructional practices
 - Implement decision-making processes
 - Use the SUM process
- Case studies highlight need to:
 - Collaborate across fields
 - Invest in assessment to improve intervention outcomes
 - Integrate decision-making processes and reflective thinking for thorough assessment approaches



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