

1

**Evidence-Based Decision Making:
ASHA's Evidence Maps**

Christine T. Asaro
casaro@asha.org

ASHA PROFESSIONAL DEVELOPMENT TAKE FIVE

1

Speaker Disclosure


- Financial:
 - Clinical Research Associate for the ASHA's National Center for Evidence-Based Practice in Communication Disorders(NCEP)
- Nonfinancial:
 - ASHA certified SLP and ASHA member



Christine T. Asaro, M.A., CCC-SLP
Clinical Research Associate

2

Disclaimer Statement

 **ASHA Evidence Maps**
apps.asha.org/EvidenceMaps

*Disclaimer: For the purpose of this course, we will only be discussing ASHA's Evidence Maps

3

Objectives

- Describe types of synthesized research found in the Evidence Maps and how to assess quality
- Demonstrate how to navigate ASHA's Evidence Maps to quickly locate relevant research
- Understand how ASHA's Evidence Maps support clinical decision making

4

EBP Overview

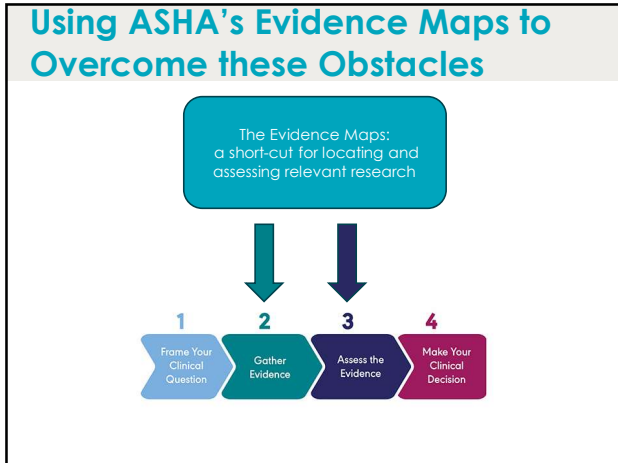
The diagram illustrates the Evidence-Based Practice (EBP) process. At the top is a triangle with 'EBP' in the center. The left side is labeled 'Patient Preferences', the right side is 'Clinical Expertise', and the base is 'Evidence (EXTERNAL AND INTERNAL)'. Below the triangle is a horizontal flowchart with four steps: 1. Frame Your Clinical Question, 2. Gather Evidence, 3. Assess the Evidence, and 4. Make Your Clinical Decision.

5

Obstacles to Using Research in Clinical Decision Making

The diagram lists five obstacles to using research in clinical decision making, each in a colored rounded rectangle: Insufficient Time (dark blue), Insufficient Financial Resources (teal), Insufficient Access (light blue), Lack of Research (purple), and Poor Quality Research (dark blue).

6



7

Coming up next

We've explored the concept of EBP. In the next activity, we'll describe the **content of ASHA's Evidence Maps**

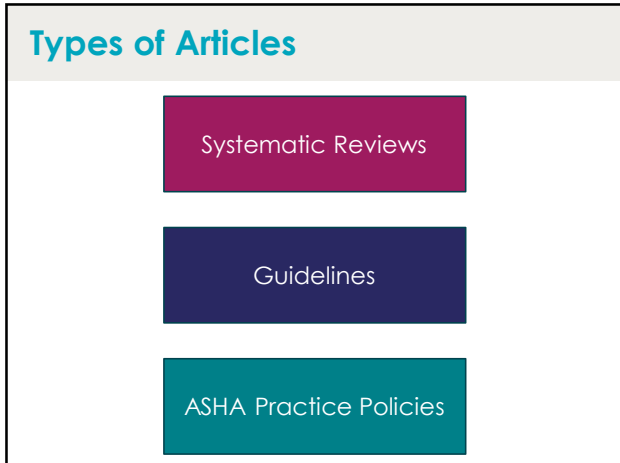
ASHA PROFESSIONAL DEVELOPMENT

8

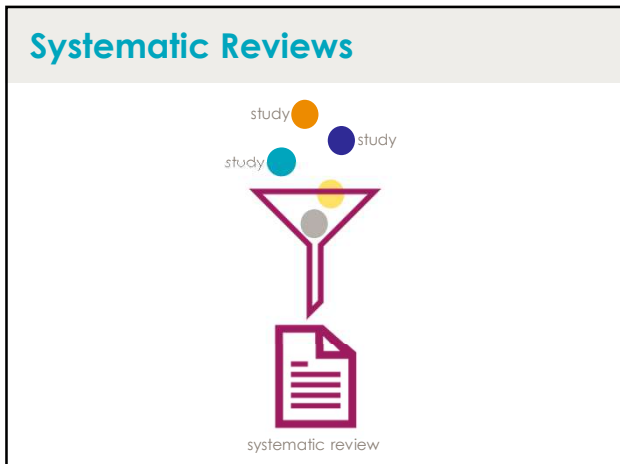
2 ASHA's Evidence Maps: The Content

ASHA PROFESSIONAL DEVELOPMENT TAKE FIVE

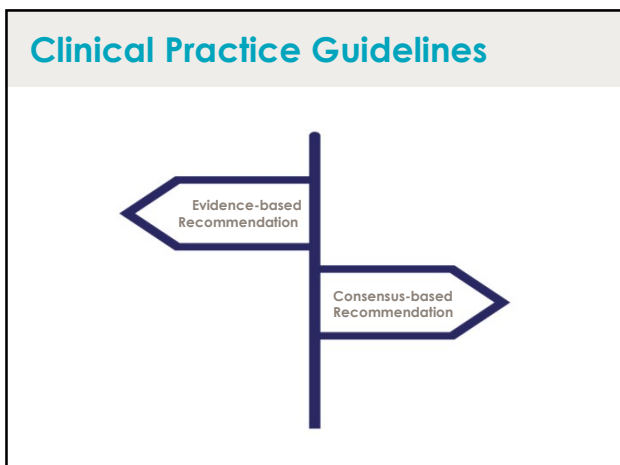
9



10



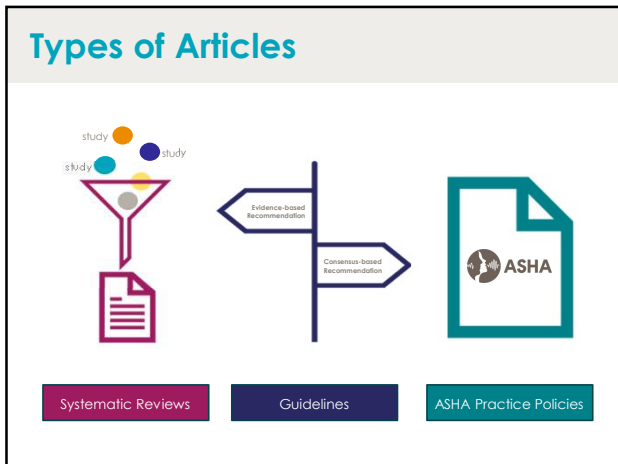
11



12



13



14

A graphic with a teal header "For other research needs...". Below the header are three logos: ASHAWIRE (a grid of colored squares), PubMed (a blue box with a white book icon), and JSTOR (a red square with a white decorative pattern). Below the logos is the text "EBP TOOLKIT" and a short paragraph: "A collection of PDFs to guide you as you implement the EBP process for your own clinical questions."

15

Scope of Content

Practice Area

- Screening
- Assessment
- Treatment

Service Delivery


- Dosage (Frequency/Intensity)
- Format (Group/Telepractice)
- Home Program
- Provider
- Setting
- Timing

Additional Considerations


- Bilingual Considerations
- Comorbidities
- Return to Work/School
- Severity
- Documentation/Goal Setting

16

Updating the Evidence Maps



New research is regularly added




Studies are reviewed and vetted

17

Components of EBP

Type of Evidence ⓘ

- External Scientific Evidence
- Clinical Expertise
- Client Perspectives



18

What is in an Article Summary?

ARTICLE CITATION

ARTICLE DETAILS

CONCLUSIONS FROM THIS SYSTEMATIC REVIEW

RECOMMENDATIONS FROM THIS GUIDELINE

19

Conclusions

Conclusions from [systematic reviews](#) report data and outcomes information.

External Scientific Evidence

Results demonstrated that the Picture Exchange Communication System (PECS) had a **positive effect** on social-communication, **no effect** on expressive language, and an **inconsistent effect** on general outcomes.

External Scientific Evidence

One study found that clinical phonocardiological evaluation of oropharyngeal dysphagia (i.e., a clinical evaluation with pass/fail results for suspected aspiration based upon presence of coughing, choking, wet voice, *dyspnea and change in cervical auscultation*) in children with CP had a **sensitivity of 80% and specificity of 46.7%**. Further research is needed to determine the efficacy of this evaluation for children with CP.

20

Recommendations

Recommendations from [guidelines](#) summarize suggestions for practice.

External Scientific Evidence

"Individuals [on the autism spectrum] who have limited verbal language, or those who *do not respond to multiple interventions aimed at improving communication*, **should be offered the opportunity** to use the [Picture Exchange Communication System] PECS. **Monitoring and ongoing intervention are recommended** to maintain gains in communication" [Rating B Evidence [80%]; p. S175]. ⓘ

External Scientific Evidence

"Nutrition, growth, and other aspects of swallowing dysfunction **should be monitored**. Further specific evaluations are warranted if screening suggests areas of impairment" (p. 860). ⓘ

21

Quality Appraisal

QUALITY APPRAISAL

Indicators of Review Quality ⓘ

YES	The review states a clearly focused question/aim.
YES	Criteria for inclusion of studies are provided.
YES	Search strategy described in sufficient detail for replication.
NO	Included studies are assessed for study quality.
N/A	Quality assessments are reproducible.
YES	Characteristics of the included studies are provided.

QUALITY APPRAISAL

Indicators of Review Quality ⓘ

AGREE Rating

Recommended with Provisos

22

Level of Evidence

EVIDENCE RATINGS USED IN THIS DOCUMENT

Recommendations were rated based on the GRADE methodology. The strength of the recommendation represents the guideline panel's confidence in the balance between desirable and undesirable consequences, quality of the evidence, clinical and consumer preferences, and considerations of cost and implementation. The ratings are as follows:


- **Strong Recommendation:** The evidence supports a clear balance towards desirable effects (Strong Recommendation For) or undesirable effects (Strong Recommendation Against).
- **Weak Recommendation:** There is uncertainty regarding the balance of desirable and undesirable effects.
- **Practice Statement:** There is a lack of quality evidence to determine a recommendation, but advice based on consensus/clinical expertise is provided.

23

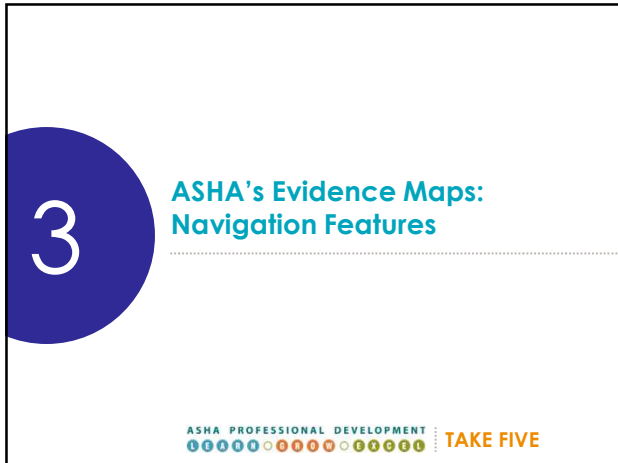
Coming up next

We've outlined the content of ASHA's Evidence Maps. In the *next activity*, we will explore the **navigation features of the Evidence Maps**.

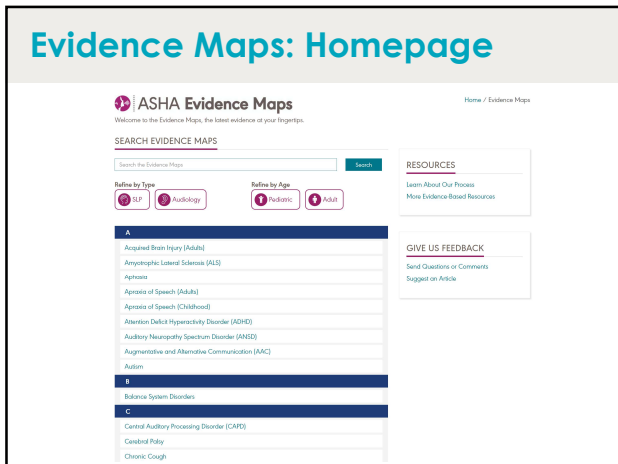
ASHA PROFESSIONAL DEVELOPMENT



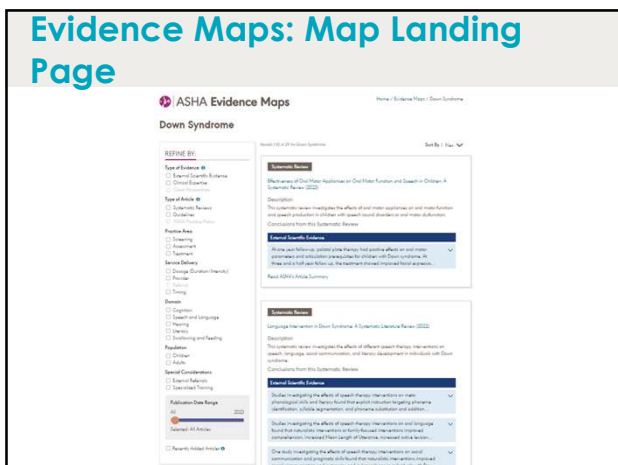
24



25



26



27

Evidence Maps: Article Summaries

Link to full article →

Summarized conclusions, recommendations, and patient perspectives →

Summary of the Systematic Review

ARTICLE CITATION
 Parent-Mediated Interventions for Promoting Communication and Language Development in Young Children With Down Syndrome
O'Toole, C., Lee, A. S., et al. (2018). Cochrane Database of Systematic Reviews, 10, CD012089. Find Article

CONCLUSIONS FROM THIS SYSTEMATIC REVIEW
 Displaying 1 of 1 conclusions

SERVICE DELIVERY
 Qualitative analysis revealed insufficient and low-quality evidence to determine the effects of parent-mediated interventions to improve the language/communication of children, birth to six years old, with Down syndrome. The authors indicated that limited evidence does not indicate that parent-mediated interventions are ineffective, and that further research is needed to determine the effect on language and communication for this population.

Maps:
[Down Syndrome](#) [System Language Disorder](#)

ARTICLE DETAILS

Description
 This systematic review investigates the effect of parent-mediated interventions on the communication and language skills of young children with Down syndrome.

Years Searched
 Up to January 2018

31

Evidence Maps: Article Summaries

Systematic Review

QUALITY APPRAISAL
 Indicators of Review Quality

- YES The review states a clearly focused question/aim.
- YES Criteria for inclusion of studies are provided.
- NO Search strategy described in sufficient detail for replication.
- YES Included studies are assessed for study quality.
- YES Quality assessments are reproducible.
- YES Characteristics of the included studies are provided.

Guideline

QUALITY APPRAISAL
 Indicators of Review Quality

AGREE Rating

Highly Recommended

32

Evidence Maps: Article Summaries

ARTICLE DETAILS

Description
 This systematic review investigates the effect of parent-mediated interventions on the communication and language skills of young children with Down syndrome.

Years Searched
 Up to January 2018

Study Designs Included
 Randomized controlled trials; quasi-randomized controlled trials

Number of Studies
 3

Sponsoring Body
 The Cochrane Collaboration; Health Research Board (Ireland)

33

Example Case Study

An 81-year-old female with a history of bilateral, sensorineural hearing loss is recovering from cardiac surgery in a hospital step-down unit.

She shows characteristics of delirium; however, she currently does not have her hearing aids with her. While a brief cognitive evaluation indicates a severe cognitive-communication disorder, you note the potential impacts of reduced hearing on these results.

You are concerned with the lack of hearing aid use, as you know that increased age, surgery requiring sedation, and reduced access to hearing or vision are all risk factors for developing delirium.

Our clinical question is:

What impact does hearing aid use have on the risk of delirium in individuals with hearing loss?

34

Example Case Study: Search

Hearing Loss (Adults)
This Map includes research on hearing loss in adults 18 years and older.

REFINE BY:

Type of Evidence

- External Scientific Evidence
- Clinical Expertise
- Client Perspectives

Type of Article

- Systematic Reviews
- Guidelines

Practice Area

- Screening
- Assessment
- Treatment**

Devices

- Cochlear Implants
- Hearing Aids**
- Hearing Assistive Technology Systems (HATS)
- Middle Ear Implants
- Disintegrated Implants (Including Semi-implantable Bone Devices)
- Other Implants (ABI/Hybrid)
- Over-the-Counter Hearing Aids (Including FSAP)

Results 130 of 384 for Hearing Loss (Adults) Sort By | New

Systematic Review

The Impact of Hearing Loss and Its Treatment on Health-Related Quality of Life Utility: A Systematic Review With Meta-Analysis (2023)

Description

This systematic review investigates the effect of hearing interventions (e.g., hearing aids, cochlear implants) on quality of life outcomes in individuals with confirmed hearing loss.

Conclusions from this Systematic Review

External Scientific Evidence

Meta-analysis of the effect of acoustic hearing aids on patient quality of life in adults with mild-to-moderate hearing loss found significant improvements, with an increased mean utility of 0.11 (95% CrI=0.02-0.20).

Meta-analysis of the effect of cochlear implantation on quality of life (QoL) in adults with hearing loss found significant improvements, with an increased mean utility of 0.16 to 0.17 (95% CrI=0.03-0.28) 1 year post-implantation. In children with...

Meta-analysis of the effect of implantable hearing aids on quality of life (QoL) in adults with moderate-to-severe hearing loss found significant improvements, with an increased mean utility of 0.07 (95% CrI=0.05-0.09). Another study found no...

Read ASHA Article Summary

35

Example Case Study: Search

REFINE BY:

Type of Evidence

- External Scientific Evidence
- Clinical Expertise
- Client Perspectives

Type of Article

- Systematic Reviews
- Guidelines
- ASHA Practice Policy

Practice Area

- Screening
- Assessment
- Treatment**

Special Considerations

- Comorbid Diseases and Disorders**
- Acquired Brain Injuries (Not Specified)
- Balance/Vestibular Disorders
- Blindness
- Cognition/Dementia
- Cystic Fibrosis
- Degenerative Diseases
- Delirium**
- Developmental Disabilities

36

Evidence-Based Decision-Making Micro Course Series

12

Example Case Study: Search

The screenshot shows search results for 'Delirium' in the ASHA Evidence Maps. It includes filters for 'Treatment', 'Devices', and 'Hearing Aids'. The main result is a guideline titled 'Delirium: Prevention, Diagnosis and Management in Hospital and Long-Term Care (2023)'. The description states that the guideline provides recommendations for identifying and treating delirium in adults in hospital and long-term care settings. It also includes a section for 'External Scientific Evidence' with a dropdown arrow.

37

Coming up next

We've explored ASHA's Evidence Maps. The next activities are **your turn** to practice **navigating the Evidence Maps** and **determining takeaways from available research**.

ASHA PROFESSIONAL DEVELOPMENT
1 2 3 4 5 6 7 8 9 10 11 12

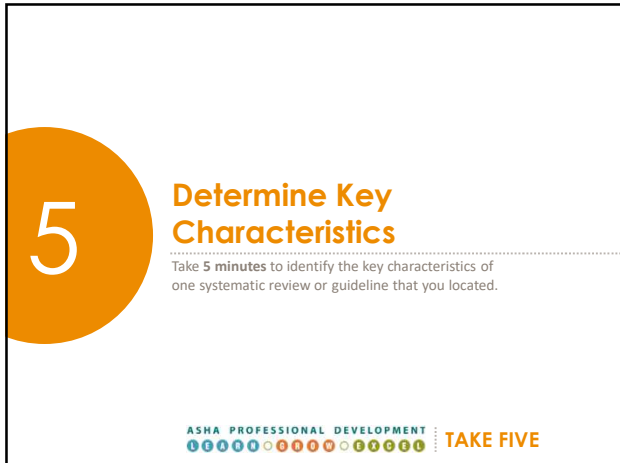
38

4 Navigate the Evidence Maps

Take 5 minutes to locate research relevant to your clinical question on the Evidence Maps.

ASHA PROFESSIONAL DEVELOPMENT TAKE FIVE
1 2 3 4 5 6 7 8 9 10 11 12

39



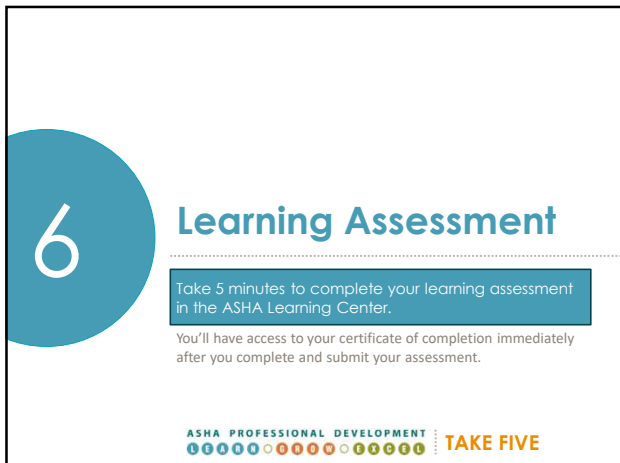
5 **Determine Key Characteristics**

Take 5 minutes to identify the key characteristics of one systematic review or guideline that you located.

ASHA PROFESSIONAL DEVELOPMENT TAKE FIVE

The slide features a large orange circle on the left containing the number '5'. The title 'Determine Key Characteristics' is in bold orange text. Below the title, a subtitle explains the task. At the bottom, there is a logo for 'ASHA PROFESSIONAL DEVELOPMENT TAKE FIVE' consisting of a row of colored circles.

40



6 **Learning Assessment**

Take 5 minutes to complete your learning assessment in the ASHA Learning Center.

You'll have access to your certificate of completion immediately after you complete and submit your assessment.

ASHA PROFESSIONAL DEVELOPMENT TAKE FIVE

The slide features a large teal circle on the left containing the number '6'. The title 'Learning Assessment' is in bold teal text. Below the title, a subtitle explains the task. At the bottom, there is a logo for 'ASHA PROFESSIONAL DEVELOPMENT TAKE FIVE' consisting of a row of colored circles.

41
