ASHA Evidence Maps: An EBP Tool for Clinicians

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What are Evidence Maps?

Evidence Maps
Welcome to the Evidence Maps, the latest evidence at your fingertips.

Evidence Maps
Future Evidence Maps

What's New

View our latest update:

A Quantitative Analysis of Language Interventions for Children with Autism has been added to the Autism Spectrum Disorders Map: 02/2017

A Systematic Review of Screening Tools for Predicting the Development of Dementia has been added to the Dementia Map: 02/2017

Message Therapy for Children with Autism Spectrum Disorders: A Systematic Review has been added to the Autism Spectrum Disorders Map: 02/2017

Reading Comprehension Instruction for Students with Autism Spectrum Disorders: A Review of the Literature has been added to the Written Language Disorders (School Age) Map: 02/2017

Sight Word Instruction for Students with Autism: An Evaluation of the Evidence based has been added to the Autism Spectrum Disorders Map: 02/2017
Who is the Intended Audience?

- **Primary Audience:**
  - Clinicians

- **Secondary Audience:**
  - Students
  - Researchers
  - Consumers/Public
How are Evidence Maps developed?

EBP (Evidence-Based Practice) is developed by considering Current Best Evidence, Clinical Expertise, and Client/Patient Values. The diagram illustrates the process, where evidence maps are refined based on practice areas such as assessment, screening, service delivery, and treatment, along with population factors like acquired brain injury, amyotrophic lateral sclerosis, dementia, head and neck cancer, Huntington's disease, myotonic dystrophy, Parkinson's disease, progressive ataxia, respiratory disease, spinal cord injury, stroke, trach/vent dependent, and traumatic brain injury.
Content of Evidence Maps

- Guidelines
- Systematic Reviews
- Patient/Client Perspective Studies
Vetting Process

- **Guidelines**: Minimum criteria for inclusion based on methodological rigor
- **Systematic Reviews**: Rated against 6 quality indicators
- **Patient Perspectives**: No case studies
Navigation
Effectiveness of Interventions to Address Cognitive Impairments and Improve Occupational Performance After Traumatic Brain Injury: A Systematic Review


Description
This is a systematic review of peer-reviewed scientific literature on cognitive interventions targeting occupational performance, defined as "observed or self-reported improvement in daily life activities" (p. 2) in adults with traumatic brain injury. Although the target audience is primarily occupational therapy practitioners, the findings are relevant for See More

Conclusions from This Review

External Scientific Evidence
Overall, the evidence suggested cognitive remediation and strategy instruction may be beneficial for individuals with traumatic brain injury. Strong evidence was found to support the following treatments:
- direct attention training,

See More
### Summary of the Systematic Review

**Article Citation**

Effectiveness of Interventions to Address Cognitive Impairments and Improve Occupational Performance After Traumatic Brain Injury: A Systematic Review


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### Article Quality Ratings

**Read about Our Rating Process**

<table>
<thead>
<tr>
<th>Indicators of Review Quality</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>The review states a clearly focused question/aim.</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Criteria for inclusion of studies are provided.</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Search strategy described in sufficient detail for replication.</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>Included studies are assessed for study quality.</td>
<td>YES</td>
<td></td>
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<tr>
<td>Quality assessments are reproducible.</td>
<td>YES</td>
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<tr>
<td>Characteristics of the included studies are provided.</td>
<td>YES</td>
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</tbody>
</table>

**Quality Rating Notes**

**Search Strategy:** The specific search strategy was not provided within the text; the authors cited Supplemental Appendix 1 on http://otjournal.net which we were unable to obtain.
This is a systematic review of peer-reviewed scientific literature on cognitive interventions targeting occupational performance, defined as “observed or self-reported improvement in daily life activities” (p. 2) in adults with traumatic brain injury. Although the target audience is primarily occupational therapy practitioners, the findings are relevant for therapeutic interventions within the scope of practice of speech-language pathology.

Questions/Aims Addressed
To identify, evaluate and synthesize evidence to determine if cognitive interventions improve occupational performance for people with traumatic brain injury.

Population
Adults with traumatic brain injury receiving cognitive rehabilitation to improve occupational performance; studies were included if at least 30% of participants in each study sample were adults with traumatic brain injury.

Intervention/Assessment
Any cognitive intervention.

Number of Studies Included
37

Years Included
May 2008 - January 2014

Evidence Ratings for This Document
Levels of evidence were adapted from the Agency for Healthcare Research and Quality of the U.S. Preventative Task Force:
- **Strong evidence:** based on consistent results from at least two randomized controlled trials (RCT)
- **Moderate evidence:** based on one RCT or two or more studies with lower levels of evidence
- **Limited evidence:** based on few studies, flaws in available studies, or inconsistency in findings across individual studies
- **Mixed evidence:** findings were inconsistent across studies in a given category
- **Insufficient evidence:** number and quality of studies was too limited to make a clear classification

Conclusions from This Systematic Review

1. **What are Conclusions?**

   - **Traumatic Brain Injury (Adults)**
Conclusions from This Systematic Review

What are Conclusions?

Traumatic Brain Injury (Adults)

Treatment

Overall, the evidence suggested cognitive remediation and strategy instruction may be beneficial for individuals with traumatic brain injury. Strong evidence was found to support the following treatments:

- direct attention training,
- attention process training,
- dual-task training,
- executive function training,
- memory interventions involving encoding techniques, compensatory strategy training, and cognitive assistive technology (e.g. calendar software, electronic aids, pencil-and-paper methods).

Keywords: Attention, Executive Functioning, Direct Attention Training, Memory, Dual Task Training, External Strategies (e.g. PDAs), Internal Strategies (e.g. Mnemonics)
Evidence Ratings for This Document

The INCOG panel classified recommendations into one of three categories based on the strength of the supporting evidence. These categories are further defined as follows:

- **Level A**: recommendation supported by at least one meta-analysis, systematic review or randomized controlled trial study of appropriate size and relevant control group.
- **Level B**: recommendation supported by cohort studies that at minimum have a comparison group, or supported by well-designed single subject experimental design studies or small sample size randomized controlled trial studies.
- **Level C**: recommendation supported primarily by expert opinion on the basis of expert experience or through uncontrolled case series without comparison groups.

"Metacognitive strategy training using functional everyday activities should be considered" to improve attention. This intervention "should be considered, especially in patients with mild-moderate attention deficits." (Level A Evidence; p. 330).

Keywords: Attention, Metacognitive Treatments
How can the Evidence Maps help with advocacy efforts?

- Quickly find research evidence to support our practice.
- Make recommendations for policies that benefit students, patients, and clients.
- Feel empowered in your decision making.
FAQs

- How does N-CEP determine which new maps to develop?
- What happens if there is no evidence on a clinical topic?
- Why isn’t this study or systematic review included?
Who
What
Why
How