

## Creating an Evidence-Based Culture through Knowledge Translation

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PILLER  
CHILD  
DEVELOPMENT

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### Objectives

1. At the conclusion of this presentation participants will be able to define knowledge translation and identify at least three tools available for knowledge translation in occupational therapy.
2. At the conclusion of this presentation participants will be able to apply at least three strategies to their own practice to implement evidence and promote a culture of evidence-based practice.
3. At the conclusion of this presentation participants will be able to generate a knowledge translation plan for their own practice.

### Evidence-Based Practice (EBP)

- ❖ How do you define EBP?
- ❖ Best available evidence to guide treatment decisions
- ❖ Standard for occupational therapy practice
- ❖ Ethical practice - *AOTA Code of Ethics*

### Best Practice

- ❖ Clinical expertise combined with best available evidence
- ❖ Use of theory, evidence, and practice

### Purpose of EBP

- ❖ Provides information on:
  - Effectiveness of interventions
  - Costliness of interventions
  - Risks and benefits of interventions
  - Guides reimbursement of services

### Lack of Evidence

The absence of available evidence does not necessarily equate to the ineffectiveness of an intervention.

(Johnston & Dijkers, 2012)

## Barriers to EBP

- ❖ Access to current evidence (Sudsawad, 2005; Tomlin & Borgetto, 2011)
- ❖ Time (Welch & Dawson, 2007 )
- ❖ Comfort level with tradition (Fleming-Castaldy & Gillen, 2013 )
- ❖ Lack of applicability to clinical practice
  - Population
  - Interventions
  - Research questions

## Overcoming Barriers

- ❖ Accessing evidence
- ❖ Time
- ❖ Comfort with current interventions
- ❖ Lack of applicability to current practice

## Access to Evidence

- ❖ Open access
- ❖ Students
- ❖ Public library
- ❖ State university libraries
- ❖ AOTA membership
- ❖ Journal clubs

## Time

- ❖ Intentional use of time
- ❖ Set aside time- one hour per month
- ❖ Gathering organizational support
- ❖ Work as a team

## Comfort and Applicability

- ❖ Comfort with tradition:
  - Set goals- learn 3 new interventions a year; try one new intervention per month
  - Work with other therapists to gain ideas and expand caseload
  - Modify current interventions
- ❖ Applicability
  - What do you have available that is similar?
  - Similarities/differences of clients to evidence
  - Response of client to intervention

## Practice-Research Gap

- ❖ Researcher: data driven; how does intervention impact outcomes
- ❖ Clinician: impact of intervention on client

## Knowledge Translation

- ❖ Applying evidence to practice
- ❖ Sometimes known as implementation science
- ❖ Process
- ❖ Requires decision making and professional reasoning

## Knowledge Translation Toolkit

<https://www.aota.org/Practice/Researchers/KT-Toolkit.aspx>

## Knowledge Translation Toolkit

- ❖ Resources for getting started in EBP- time management, how to incorporate evidence, how to access evidence
- ❖ Share Knowledge- communities of practice, forums
- ❖ Organizational Change
  - EBP Champion
  - EBP Culture
  - Implementing evidence-based protocols
  - Funding
  - Journal club

## Translating Evidence to Practice

- ❖ Accessing relevant evidence
- ❖ Evidence-based culture
- ❖ Individual accountability
- ❖ Gathering evidence in practice
- ❖ Working with universities

## FRAMES

- ❖ Adapting evidence for client needs
- ❖ Systematic manner to document adaptations and reasons
- ❖ Adaptations:
  - Tailoring to client needs
  - Integrating another treatment intervention with specified intervention
  - Removing parts of the intervention
  - Shortening or lengthening the intervention
  - Changing order
  - Repeating part of the intervention
  - Substitutions

## Evidence Champion

- ❖ Identify person in organization to be the evidence champion
  - Professional goals
- ❖ AOTA Membership
- ❖ Knowledge of caseloads of OT department
  - Develop clinical questions
- ❖ Search literature- synthesize and share information
- ❖ Review current literature
  - Share relevant literature with other therapists

## Identifying Relevant Evidence

- ❖ Students- provide information on evidence presented in class
- ❖ Journal clubs- local/state level, AOTA journal clubs through SIS
- ❖ AOTA- emails, Facebook page, CommunOT
- ❖ Related organizations- follow on social media (e.g. Sensory Integration Network)



## Evidence

- ❖ Review evidence for relevance
  - What questions do therapists have regarding interventions?
  - What questions do clients have regarding interventions?
  - What questions do management/payer sources have regarding interventions?
- ❖ New referrals
- ❖ Traditional practices/protocols

## Adapting Evidence

- ❖ Identify evidence, review, synthesize
- ❖ Compare populations, equipment, space, client needs, time for implementation
- ❖ Identify what resources are available
- ❖ Share evidence with other therapists
- ❖ Apply evidence- lab practice, mentorship
- ❖ Fidelity check

## Implementing Evidence

1. Evidence Champion provides summation of evidence
2. Discuss relevance to current population.
3. Identify assessment of client needs.
4. Define client that is relevant for the evidence
5. Translate the evidence into your practice
  - a. Population
  - b. Equipment
  - c. Space
  - d. Time

## Implementing Evidence

6. Practice the application with other therapists
7. Try the intervention with clients. Gather evidence in practice based on clients' response
8. Discuss results and modifications
9. Develop evidence based protocols
10. Implement training and fidelity checks

## Creating Evidence-based Protocols

- 1) Literature review
- 2) Review of current practices
- 3) Join the current practices and literature review to generate a protocol that is best for your clients in your setting
- 4) Train staff on the protocol.
- 5) Lab practice
- 6) Therapy practice
- 7) Fidelity checks
- 8) Gather evidence. Modify as needed.

## Equipment/CEU Request

- Population
- Percentage of caseload/frequency of use
- Current similar equipment- what do you use now to address these goals?
- Provide 2-3 references for evidence
- How it will improve treatment/patient outcomes
- How will staff be trained to utilize?

## Working with Universities

- ❖ Fieldwork students
- ❖ Practice Scholar
- ❖ Evidence-based projects
- ❖ Community partners

## Practical PBE Studies

- ❖ Text mining/Point of Care
- ❖ Retrospective pre-post intervention
- ❖ Prospective study

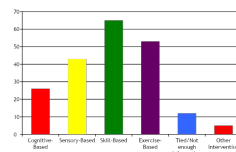
## Text Mining/Point of Care

- ❖ Therapy can be difficult to study for effectiveness because interventions are poorly defined.
- ❖ Therapists collect data every session
  - Daily notes
  - Tracking sheets
- ❖ Defines interventions; determines what therapists do in sessions
- ❖ Evaluate implementation of evidence



Mining  
Learning  
Information  
Text  
Models  
Retrieval

## Example of Text Mining Study



## Retrospective Pre-test/Posttest

- ❖ Research question: What is the effectiveness of \_\_\_\_\_ intervention and measured by [outcome measure]?
- ❖ Outcome measures
- ❖ Compare pretest and post test scores
- ❖ Consider other outcome measures: GAS, qualitative methods, measures of participation



	Pre-Test	Post-Test
1	1.00	1.00
2	1.00	1.00
3	1.00	1.00
4	1.00	1.00
5	1.00	1.00
6	1.00	1.00
7	1.00	1.00
8	1.00	1.00
9	1.00	1.00
10	1.00	1.00

## Lack of Evidence

The absence of available evidence does not necessarily equate to the ineffectiveness of an intervention.

(Johnston & Dijkers, 2012)

## Evidence to Practice Loop

- ❖ Evidence to practice loop
  - 1) Gather relevant evidence
  - 2) Share evidence
  - 3) Adapt evidence
  - 4) Monitor results- formally and informally

## Creating a Culture of Evidence-Based Practice

- ❖ Identify Barriers
  - Time
  - Access
  - By-in- administrative and with therapy staff
  - Applicability of evidence

## Creating a Culture of Evidence-Based Practice

- ❖ Identify Potential Solutions
  - Off hour time
  - Share responsibilities
    - Students
  - Local resources - universities, local libraries, other departments
  - Find like minded person
  - Identify career goals and advancement opportunities
  - Link to better outcomes

## Discussion Questions

- ❖ Do you implement evidence in your practice?
  - If not, discuss barriers. If so, discuss how.
- ❖ Do you currently have someone that would be considered an "evidence champion?" How could you identify someone for this role?
- ❖ What are the benefits to implementing evidence in your specific practice setting? (i.e. improved pt outcomes, reimbursement, etc.)
- ❖ How do you consume evidence?
- ❖ Do you regularly evaluate your treatment interventions?
- ❖ How can you implement an evidence review of an intervention?

## Generate a Plan

- ❖ What- evidence to implement
- ❖ When- timeline
- ❖ How- training process and fidelity check
- ❖ Where- location of training and implementation

## Implement and Evaluate Plan

- ◆ Identify outcomes first
  - Y Standardized assessment
  - Y Patient satisfaction
  - Y Length of stay
- ◆ Decide on one clinical question.
  - Y Review evidence- literature and current practice outcomes
  - Y Modify evidence
  - Y Implement
  - Y Review

Questions

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