

## Occupational Therapy Fieldwork Education: Application of our Ethical Principles through Evidence-Based Practice and Knowledge Translation

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### Learning Objectives

- Analyze historical trends in occupational therapy education and practice in regards to finding and using evidence for our practice
- Compare and contrast EPB to knowledge translation
- Identify resources, barriers, and opportunities for Evidence Based Practice and knowledge translation
- Describe how students can support Evidence Based Practice and knowledge translation with clinical and community partners during fieldwork experiences

Analyze historical trends in occupational therapy education and practice in regards to finding and using evidence for our practice

Is Evidence Based Practice Important? Why or why not?

### From NSPOT to today!

- 1922** 12 Month Training Program
- 1938** First Bachelors Programs approved by AOTA
- 1947** Willard and Spackman – First Textbook
- 1954** AOTA Adopts Occupational Therapy Assistant Standards
- 2007** Masters Degree required for OTRs
- 2019** Four Points of Entry affirmed by Representative Assembly
  - Doctorly Prepared Occupational Therapist
  - Master's Prepared Occupational Therapist
  - Bachelor's Prepared Occupational Therapy Assistant
  - Associate's Prepared Occupational Therapy Assistant

### How Productive are we as a profession at creating evidence for the profession?

- **Approximately 100 Articles in AJOT per year**
  - Plus CJOT, BJOT, OTJR... etc.
  - A few Occupational Therapists are published annually in other high-impact journals outside of Occupational Therapy (NEJM, JAMA, Lancet...)
- **Approximately 40 OTR programs are at Research-Intensive Universities**
  - Additional Resources and funding available for Research
  - More intense expectations for faculty to be Publish and win Grant competitions
- **Approximately 40 Federally funded Occupational Therapy Labs nationally**
  - NIH, US Department of Education, NIMH, CMS, ETC.
- **Approximately 1600 Presentations at AOTA in 2019**
  - Plus Canada, Australia, UK, Ireland, South Africa, Sweden, Morocco... etc.
  - Posters at AOTA are now Published Abstracts – so these are searchable on Databases...

## So sometimes, we must go outside of our professional literature to find evidence for our practice...

How do we Decide if we should use this information or not?  
What is our framework?

How many of you use ABA principles within your practice?

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## Knowledge uptake and Translation: A matter of Evidence or of Philosophy?

Polatajko, H. J., & Welch, C. (2015). Knowledge uptake and translation: A matter of evidence or of philosophy. *Canadian Journal of Occupational Therapy, 82*(5), 268-269.

...seek expert opinion. After considering a number of potential experts, we chose to approach Dr. Jane Case-Smith, an internationally recognized scholar in paediatric occupational therapy with particular expertise in the area of evidence-based occupational therapy for children with ASD. Dr. Case-Smith generously offered a very thoughtful and detailed explanation, one that provided a deep understanding of the place ABA had in occupational therapy. Of particular importance were her opening words: "I think that ABA is a poor fit to occupational therapy philosophy" (J. Case-Smith, personal communication, May 13, 2014).

With these opening words, Dr. Case-Smith put her finger on a fundamental driver of knowledge uptake and translation in our profession—*philosophical fit*. Dr. Case-Smith further elaborated on this point: "I think because we differ at the philosophical level, [occupational therapy] is unable to adopt ABA theory and methodology" (J. Case-Smith, personal communication, May 13, 2014). The notion of philosophical fit as a

## Knowledge uptake and Translation: A matter of Evidence or of Philosophy?

"Notwithstanding the role of the profession in knowledge uptake and translation, each of us is, ultimately, **the gatekeeper for our own knowledge uptake and translation into practice**. Accordingly, each of us needs to be self-reflective; each of us needs to examine the factors we bring to bear in considering the emerging evidence so we can best enable our clients' occupation."

Polatajko, H. J., & Welch, C. (2015). Knowledge uptake and translation: A matter of evidence or of philosophy? *Canadian Journal of Occupational Therapy, 82*(5), 268-269.

## Where do we find the evidence outside of Occupational Therapy?

- How do we know that it is reliable?
- How do we know that it is within the scope of Occupational Therapy?
- How can students and our academic programs help us with this process?
- You have a cheat sheet!
- It's up to you and your state's Scope of Practice to use the information or not

## Great Resources outside of Occupational Therapy (cheat sheet)



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## What is best evidence?

- Level 1** Systematic Review (highest methodological rigor)
- Level 2** Randomized Controlled Trial (properly designed)
  - RCT
- Level 3** Nonrandomized, controlled studies
- Level 4** Well-designed cohort studies or case-control analytic studies preferably from multiple sources
- Level 5** Uncontrolled studies with dramatic results
- Level 6** Expert opinion (lowest methodological rigor) -

“We need to get to the point as a profession where evidence is not a bunch of OTs sitting in a room deciding what to do.”  
 -Charles Christiansen, to a group of AFWC’s at AOTA circa 2007

In other words, we need to test our interventions.

Compare and contrast EPB to knowledge translation (and implementation science)

## VISION2025

*As an inclusive profession, occupational therapy maximizes health, well-being, and quality of life for all people, populations, and communities through effective solutions that facilitate participation in everyday living.*

### Pillars of Vision 2025

**Effective:** Occupational therapy is evidence based, client centered, and cost-effective.

**Leaders:** Occupational therapy is influential in changing policies, environments, and complex systems.

**Collaborative:** Occupational therapy excels in working with clients and within systems to produce effective outcomes.

**Accessible:** Occupational therapy provides culturally responsive and customized services.

**Equity, Inclusion, and Diversity:** We are intentionally inclusive and equitable and embrace diversity in all its forms.

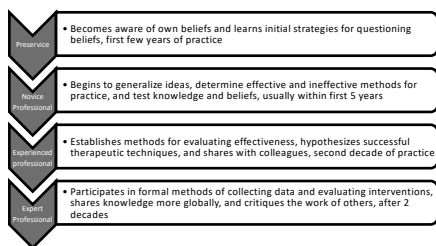
How do you decide what to do?



Tradition, Conjecture, Authority  
can be our nemesis

- What I was taught in school
- What I learned on fieldwork
- What I learned from a mentor, co-worker, supervisor
- What I learned at attendance at a CEU course over a weekend
- What I have seen works with other clients

## Professional Knowledge Development



As seen in (Law & MacDermid, 2014)

## Research to Practice Gap

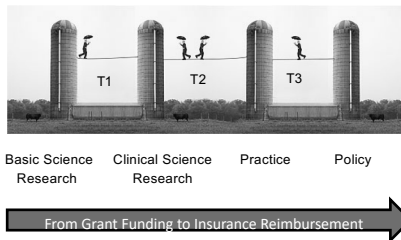
Knowledge Base  
Discovery  
What we know



Practice base  
Application  
What we do

How Long does it take to move from the lab to the clinic?

### Translational Science



### Evidence Based Practice



#### A Total Process

1. Knowing what questions to ask
2. Finding and appraising the evidence for applicability to a certain situation
3. Consider patient's unique values & needs

(Law & MacDermid, 2014)

### Implementation Science

- It is often taken for granted that research evidence and clinical empirical findings will be simply passively sourced and implemented into day-to-day professional practice, however, this is not the case
- Less than half of all medical, nursing and allied health-care research findings are ever implemented and many treatments and services that are provided to clients on a daily basis do not have an adequate evidence base to support them
- This has been referred to as a *knowledge-to-action (KtoA) gap*

Patashnik, E. M., Gerber, A. S. & Dowling, C. M. (2017). *Unhealthy politics: The battle over evidence-based medicine*. Princeton, NJ: Princeton University Press.

### Implementation Science

Speed the Movement of New Assessment and Intervention from the bench to the clinic to regular practice  
Students and Academic Partners can help

### Implementation Science – Action Phase

1. Diffusion
2. Dissemination
3. Implementation
4. Adoption
5. Sustainability



Rapport, F., Clay-Williams, R., Churruarín, K., Shih, P., Hogden, A. & Braithwaite, J. (2017). The struggle of translating science into action: Foundational concepts of implementation science. *Journal of Evaluation in Clinical Practice*, 24 (1), 117–126.

Identify resources, barriers, and opportunities for Evidence Based Practice and knowledge translation

## What are your barriers to Evidence-Based Practice?

### Barriers to Evidence Based Practice

- The largest barrier....



Primarily clinician time, but also long research to practice length of time

Salls, et al., 2009; Valdes et al, 2012

### Evidence Based Practice & Occupational Therapy

- 96% of respondents agreed or strongly agreed that EBP is important to Occupational Therapy practice
- 74% felt their work sites support Evidence Based Practice
- 26% agreed or strongly agreed that their administrator is requesting research evidence to support Occupational Therapy practice

Salls et al., 2009

- 87% of respondents:
  - Find professional literature & research useful in their daily practice
  - Feel they need to increase their use of evidence
  - Are interested in learning or improving skills to use evidence
- 12% surveyed reported searching for articles more than once a month
- 12% stated that they never search for articles
- 24% reported using evidence for clinical decision making more than once a month
  - 10% report never using evidence for this.

Salls et al., 2009

### Culture

- Evidence Based Practice and Knowledge Translation needs to be embedded into every day and every aspect of the workplace
- This includes employee recruitment, on the floor coaching and mentoring, part of yearly employee evaluations, new recruits, veteran therapists and administrators

Fixsen et al., 2009

### How do you decide what to change?

- What data do you have or need to make decisions? Does that change how you document?
- Need to consider
  - Which intervention/program works best?
  - Based on what evidence?
  - For what clients?
  - For what outcomes?
- Then, is the cost of changing worth the advantage?

### Solutions— Where can students help?

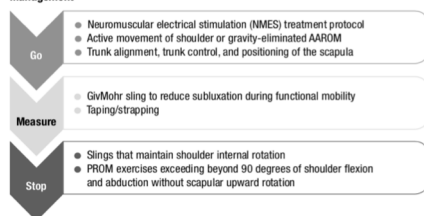
- **Inadequate work space:** Try an online format
- **Insufficient Time:** lunch, break or after-hours
- **Lack of access to journals:** See 'resource' slides
- **Lack of management support:** start small and talk about evidence in your treatment
- **Lack of participation:** start with small #, document for CE
- **Lack of funding for food:** Share responsibility
- **Insufficient time for planning:** Use forms already made
- **Lack of insightful discussion:** Prepare guiding questions, use appraisal guidelines
- **Lack of baseline knowledge or skills:** use existing resources
- **Or:** Find an online Journal Club!

AOTA Journal Club Toolkit, 2014

Describe how students can support Evidence Based Practice and Knowledge Translation with clinical and community partners during fieldwork experiences

### Using the Traffic Light System to Implement Evidence-Based Practice

Figure 1. Traffic Light Level of Evidence System for Pediatric Shoulder Subluxation Management



### Students and Academic Programs can help you!

- Faculty are looking Clinicians to partner with – as content experts or to participate in studies (IRB)
- Students love to connect 'Book-learning' to real-life practice
- Have an idea you would like to explore? Contact your Academic partner and they can help you to:
  - Learn to do a literature review
  - Remind you how to do a literature review
  - Connect you with a student to help with the literature review
  - Students have access to literature that your institution may not have access to

Or if you are really lucky...

Work with an Academic Program closely to:

1. Let your organization be a guinea pig
2. Identify Clinical Questions that the research courses can address
3. Have the students participate in Systematic Reviews to address your PICO question
4. Have the students present their results to your staff members
5. Recruit Students to your site with a fieldwork that partly involves evidence-based practice

### Vocfit.com and Fieldwork Students

- Started as an idea with no money to pay anyone to help
- Eight Student Volunteered to analyze data for us
- Level One Students used it first in a College Transition Program and with high school students during fieldwork
- Level Two Students used it in a College Transition Program
- Now being used in Project SEARCH sites across the country – OT students (level one and level two) are conducting task analysis
- \$2.2 million NIH grant awarded 4/23/2019
- One of those eight students is doing her PhD in an OT-run federally funded lab at Colorado State

**VocFit.com**  
Customized Employment Support

### Evidence Based Practice During Fieldwork

- Most programs will have some type of evidence-requirement during fieldwork
- Around 50% of programs have some type of EBP course that coincides with Level One or Level Two Fieldwork
- Are there ways students can help you with gathering evidence for your practice during fieldwork?
- PICO Sheet Provided – Helps students connect Evidence to Practice and helps them to articulate their clinical reasoning

Daly, M. M., & DeAngelis, T. M. (2017). Teaching Evidence-Based Practice across Curricula-An Overview of a Professional Development Course for Occupational Therapy Educators. Occupational Therapy in Health Care, 31(1), 102-109.

### Fieldwork Performance Evaluation- OTR

- #8.** Articulates a clear rationale for the evaluation process
- #9.** Selects relevant screening and assessment methods while considering such factors as client's priorities, context, theories and evidence-based practice
- #13.** Administers assessments in a uniform manner to ensure findings are valid and reliable
- #19.** Utilizes evidence from published research and relevant resources to make informed intervention decisions

### Culture of Evidence-Based Practice

- Join AOTA and your state association
- Seek out a mentor
- Start a culture of Evidence Based Practice
- Start/join a journal club
- Network with research/academic partners
- Fanboy/Fangirl an Occupational Therapist interested in your area of practice
- Change the way you think about continuing education

### Resources

- See the Cheat Sheet
- OT seeker OT Systematic Evaluation of Evidence
  - [www.otseeker.com](http://www.otseeker.com)
- PEDro Physiotherapy evidence database
  - [www.pedro.org.au](http://www.pedro.org.au)
- PubMed
  - [www.ncbi.nlm.nih.gov/pubmed](http://www.ncbi.nlm.nih.gov/pubmed)
- Google Scholar-beware grey literature

### Journal Club

- Interest in joining an online Journal Club?
  - Clinicians form the PICO question
  - Work collaboratively to find the articles
  - Take turns leading
  - Appoint a student to do this as part of Fieldwork!
- Interest in Board or Specialty Certification?
  - Now there is a test!

### Resources

- NBCOT
  - <https://mynbcot.org>
  - Access to ProQuest & RefWorks
    - Free articles! You don't need your school's library anymore
- NBCOT Navigator
  - Free CEU/professional development that is evidence-based
  - Most states recognize these CEUs

## Resources

- AOTA
  - Practice-Evidence-Based Practice & Research
    - Organized by practice setting
    - <http://www.aota.org/Practice/Researchers.aspx>
  - Evidence Exchange
    - <http://www.aota.org/Practice/Researchers/Evidence-Exchange.aspx>
  - Journal Club Toolkit <http://www.aota.org/Practice/Researchers/Journal-Club-Toolkit.aspx>
    - Clinics are successfully implementing this model during staff meetings
  - Board and Specialty Certifications
    - <http://www.aota.org/education-careers/advance-career/board-specialty-certifications.aspx>
- AOTA Residency Program

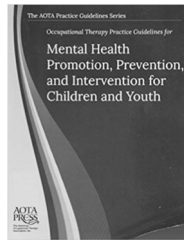
## AOTA Adult Practice Guidelines

- Arthritis and Other Rheumatic Conditions
- Adults With Musculoskeletal Conditions
- Cancer Rehabilitation With Adults
- Home Modifications
- Adults with Neurodegenerative Diseases
- Adults with Low Vision
- Adults Living with Serious Mental Illness
- Productive Aging for Community-Dwelling Older Adults
- Adults With Traumatic Brain Injury
- Adults With Stroke
- Driving and Community Mobility for Older Adults
- Adults With Alzheimer's Disease and Related Neurocognitive Disorders



## AOTA Children Practice Guidelines

- Early Childhood: Birth Through 5 Years
- Mental Health Promotion, Prevention, and Intervention for Children and Youth
- Children and Adolescents With Challenges in Sensory Processing and Sensory Integration
- Individuals with Autism Spectrum Disorder



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## Cincinnati Children's Best Evidence Statements

- Constraint Induced Movement Therapy (mCIMT), Pediatric Modified, plus Bimanual Training (BIT)
  - Pressure Therapy – Management of Hypertrophic Scarring
  - Yoga to improve strength, balance, and coordination
  - Electrical Stimulation (e-stim) during Cycling for spinal cord injury (SCI)
  - Early occupational therapy specific interventions for traumatic spinal cord injury (SCI)
  - Joint Hypermobility - Identification and Management of
  - Pressure Relief for Children with a Traumatic Spinal Cord Injury
  - Media Exposure – Impact on Infants and Toddlers
- <https://www.cincinnatichildrens.org/service/janderson-center/evidence-based-care/recommendations>

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## You have...

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- Applied AOTA's Ethical Principles Evidence Based Practice
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Thank you  
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