Evidence-Based Practice:
Concepts and Controversies

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What is Evidence-Based Practice?

“...the conscientious use of current best evidence in making decisions about the care of individual or the delivery of health services”

(Hellan, 1997)
Common Myths about EBP

**Myth:** EBP ignores established clinical skills.

**Fact:** EBP critically examines all clinical procedures, critically evaluating their appropriateness for the specific situation.
It’s not client-centred……."}

**Myth:** EBP conflicts with client-centred practice.

**Fact:** The use of evidence is only one piece of the clinical decision-making process. Client situations, preferences and values are a key component in the process.
Myth: EBP is “impossible to practice”.

Fact: It is impossible, and unreasonable, to expect any practitioner to keep up with the entire health care literature. EBP does not mean that practitioners should be continually running to the library, but that clinicians should remember to search for evidence to support or refute their practice methods.
“It’s cold, calculated healthcare…”

**Myth:** EBP is “cookie-cutter” care, with no need for individual clinical judgment.

**Fact:** “Clinical evidence can never replace individual clinical expertise [because] this expertise decides whether the external evidence applies to the patient.” (Sackett, 1998)
"It ignores good evidence..."

**Myth:** EBP rejects any evidence that is not a Randomized Controlled Trial (RCT).

**Fact:** EBP insists that each client is treated with the best available evidence, that practitioners make a genuine effort to find the best solution given their resources.
“We don’t have much evidence…”

**Myth:** There is very little evidence available in rehabilitation that I can use.

**Fact:** There are more randomized trials each year, and there are many other types of evidence that we can draw upon to make good decisions.
“It’s about cutting costs…”

**Myth:** EBP is a tool of health-policy makers, introduced to cut costs.

**Fact:** Using EBP does not reduce the need for treatments, it attempts to ensure that each client gets the best treatment appropriate for his/her condition.
Think About This

“ I believe that one ought to have only as much market efficiency as one needs, because everything that we value in human life is within the realm of inefficiency – love, family, attachment, community, culture, old habits, comfortable old shoes.”

(Edward Luttwak)
Evidence-Based Occupational Therapy

- How is evidence-based practice in OT different?
  - Focus and purpose of rehabilitation
  - Complexity
  - Flexibility
  - Levels of evidence
  - Grounded in fairness and equity
  - EBP is messy!

(Tickle-Degnen & Bedell, 2003)

(Tickle-Degnen, 2000)
FCS is highly valued by parents of children with special needs & service providers (King, S. et al., 2000)

A FCS approach results in:

- Greater parental satisfaction with services
- Better parental psychosocial well-being
- Better psychological adjustment of children

(King, King, & Rosenbaum, 1996; King et al., 1999; King, Law, King, & Rosenbaum, 1998)
Challenges to Implementation of FCS

- At the system level
- At the level of the service provider
- At the level of the person/family
Factors Influencing Perceptions and Satisfaction with Service

(CanChild, 2003)

- Complexity of child’s health/development problem (D) correlates positively with Number of sources of service (E) (+0.44).
- Number of sources of service (E) negatively correlates with FCS culture at centre/organization (A) (-0.13) and positively correlates with Parent perceptions of family-centered service (C) (+0.61).
- Parent perceptions of family-centered service (C) positively correlates with Parent satisfaction with service (A) (+0.42).
- Parent beliefs about family-centered services (F) positively correlates with Parent perceptions of family-centered service (C) (+0.20).

Factors influencing perceptions and satisfaction with service include:
- Complexity of child’s health/development problem
- Number of sources of service
- FCS culture at centre/organization
- Parent beliefs about family-centered services
- Parent perceptions of family-centered service
- Parent satisfaction with service
Evidence-Based Occupational Therapy

- Burden or powerful tool for education, practice and research?

  "We know the good but we do not practice it."

  (Euripedes, Hippolytus)
Challenges for Occupational Therapy

- Limited evidence
- Getting the evidence straight
- Transfer of findings into practice
- Tendency to embrace what is “hot”
Evidence-Based Occupational Therapy

- Art and Science
- Skills and Creativity
How Do Practitioners Really Make Decisions?

- Therapists make complex decisions about the types of interventions or supports to offer to individual clients.
- They use various types of information to make these decisions, including practical information, anecdotal information, personal and organizational values, and research evidence and ideas.
Common sense in evidence-based occupational therapy lies in using our shared knowledge.

- Be aware of declared inevitable truths
- Acknowledge non-linearity, complexity
- Common sense can “help us act in a balanced and creative manner.” (John Ralston Saul, 2001)
Evidence-Based Occupational Therapy

**Awareness:** focused knowledge

**Consultation:** distilling and communicating information

**Judgment:** applying evidence to situation of each client and their family

**Creativity:** “writing your own textbook”
What our Clients and Families Expect

- Our intervention(s) will be based on science
- Our services will be provided by competent practitioners
- Our services will be appropriate to their needs and respectful of their preferences
- Our intervention(s) will be effective
Focus for the Future

- Building knowledge
- Accessing and analyzing information
- Individualizing evidence
- Knowledge transfer and communication
Building Knowledge

- Consumers, researchers, educators, practitioners working in partnership
- Tailoring research design to for what we know and need to know
- Programs of research
- EBP as an integral part of education
Accessing Information

- Information availability
- Use of emerging strategies
  - Cumulative searchable meta-database
  - Tailored user interfaces
  - Email alerts of new evidence
  - Stored search strategies
Analyzing Information

- What is truly essential?
  - Example – quantitative intervention research
    - Control/comparison groups
    - Reliable and valid measures
    - Sources of bias
  - “The 5-minute critical review”
“There are rarely right decisions or actions in our practices; more likely there are best decisions or actions.”

(Pollock & Rochon, 2002)
Knowledge Transfer and Communication

- Dissemination source
- Content
- Medium
- Intended user
The best ways to influence changing individuals’ attitudes or behaviour are:

(a) active participation

(b) persuasive communication

(c) empowering individuals
Evidence-Based Communication

- What is the role of the person receiving knowledge?
- What decisions will be made?
- Obtain and interpret research evidence
- Communicate evidence in an understandable way

(Tickle-Degnen, 2001)
A Process for Evidence-Based Practice

- Define the problem or issue
- Search for information
- Critically appraise the information
- Consider implications
- Implement a decision in conjunction with the client
- Assess the outcomes – save information for others to use
Evidence-Based Occupational Therapy

- Working in partnership
- Enabling participation in occupations
Partnership

- A sharer, one engaged with another
- Playing on the same side with another
- A contract between two or more persons who agree to pool talent and money and share profits and losses
Who are our Partners?

- Clients and their families
- Colleagues
- Other service providers
- Agencies/Institutions
- Government
Client-Centred Practice

- An approach to practice that embraces a philosophy of respect for, and partnership with, people receiving our services.
Many studies show that client-centred practice:

- improves satisfaction
- increases adherence to therapy recommendations
- improves functional outcomes
Example: Goal Setting

- Adult rehab setting
- Started using COPM
- Seems to help clients set goals
- Those with clear goals seem more engaged
- Should we make this standard practice?
- Is there any evidence about goal setting?
Act Locally

- Examine my practice
- Extract goals from client records
- Use of outcome measures
- Examine change scores
- Graph them
- Check quality improvement data
Seek Support

- Discuss at next staff meeting
- Mine their observations
- Seek consensus
- Maximize resource utilization
Think Globally

- Search the literature
- Start with PubMed
- Define some terms:
  - goal setting, effectiveness, rehabilitation, outcomes
Results

- Not too many hits
- Two very relevant articles, AJ OT and Phys Ther
- Look beyond Medline
- Check education, psychology databases
Wow!!

- More than 800 citations
- Refine the question
- Limit the search
- Resulted in 12 articles that met criteria
Need some guidance

*OT Now* mentioned McMaster EBP group had developed critical review forms and guidelines

Recruited other therapists
Conclusions

- Goal setting has positive effect on outcomes
- Some evidence that specificity of goals makes a difference
- Mixed results on impact of collaborative methods
- Multi-factorial, motivation, self-efficacy, feedback
So Now What?

- Evidence supports integrating goal setting into practice
- Need to document change more systematically
- Use goal related outcome measures
- Collect data across clients
- Look for trends
- Keep an eye on the literature
Best Practice

- Occupational therapy, at its best, is evidence-based and client-centred
- Occupational therapy, at its best, focuses on occupations important to each person within their environment
- Occupational therapy, at its best, acknowledges the power of engagement in occupation
Best Practice

- Occupational therapy, at its best, recognizes the force of the environment as a means of intervention.
- Occupational therapy, at its best, has a broad intervention focus.
- Occupational therapy, at its best, measures outcomes of participation.
“Occupational therapists are in the business of helping people to transform their lives through enabling them to do and to be. We are part of their process of becoming and we should constantly bear in mind the importance of this task.”

- Wilcock, 1998