Interpreting Evidence for Policy and Practice

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**Evidence-based policy**
is public policy informed by rigorously established objective evidence. It is an extension of the idea of evidence-based medicine to all areas of public policy. (Wikipedia, January 31, 2011)

**Evidence-based medicine**
“Evidence based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.” (Sackett, Rosenberg, Gray, Haynes & Richardson, 1997, p 71)

**Evidence-based decision-making**
“use of current best evidence in making decisions about the care of individual patients” (Brandt et al 2009)

**Evidence-based practice**
“means integrating individual clinical expertise with the best available external clinical evidence from systematic research.” (Sackett, Rosenberg, Gray, Haynes & Richardson, 1997, p 71)

**Evidence-informed decision-making**
“the use of evidence that contributes to decision making about particular problems or issues about best use of resources within institutions and across the healthcare system” (CHSR, 2006).
What is evidence?

• All of these definitions rely on the term “evidence” – What is evidence?

• Research is a process and the output is research findings (Davis & Nutley, 2008).
  – Research findings used to inform decision-making become “evidence”
    • Research evidence is not restricted to randomized trials but should utilize the most rigorous evidence available to answer the question at hand.
  – Knowledge includes research findings but also other ways of knowing such as clinical evidence (Davis & Nutley, 2008).
Sources of knowledge

• Experience and judgment (tacit knowledge)
• Expert opinion
• Anecdote
• Values
• Tradition and professional norms
• Research and evaluation including local programmatic data
Evidence-based Practice Process (adapted from Schardt & Mayer, 2010)

Clinical Expertise

Best High Quality Research

EBP

Client or Community Values & Preferences

Other ways of Knowing
What does being evidence-based require?

– Ability to access research (original articles vs. systematic reviews)
– Understand the results enough to apply them
– Synthesize evidence along with clinical expertise, knowledge of context, political information, etc.
– Use knowledge to apply evidence to a decision-making situation
Using evidence isn’t easy

• William T. Grant foundation funded a study of educators, policy-makers and others’ use research evidence (Nelson, Leffler, & Hansen, 2009)

• All participants said research evidence was one of many factors taken into consideration in making decisions.
  – Participants expressed *cynicism about research evidence and its applicability to their context.*
  – Participants perceived a *gulf between research and practice and felt research rarely reflected the real world context.*
Using evidence isn’t easy

• In an article discussing EBP in the speech & language pathology field, Meline & Paradiso (2003) describe a number of [steps that are] barriers to the use of evidence in clinical practice including:
  – Gathering all of the available research
  – Learning all of the necessary [areas of] research methods to evaluate the evidence
  – Deciding if the evidence is relevant to the client population
  – Summarizing the information to be used.

• In the education field, practitioners and decision-makers cited challenges around lack of time to keep up with the field (Nelson, Leffler, & Hansen, 2009).
How do I know I can believe the research?

- Look for systematic reviews, most of which should draw judgments on the quality of study design
- Know the hierarchy when discussing EBP:
  - Well designed, well executed systematic review is best
  - Well designed, well executed meta-analyses
  - Well designed, well executed research with appropriate controls or comparison groups
  - All other descriptive research, theory, case studies
Things to pay attention to in reviewing the research (Rothwell, 2005)

• Setting of the study – How does this compare to my community?
• Characteristics of the participants – How similar/different are they?
• Outcome measures – Are there certain measures you believe the results more than others?
• Adequacy of the length of the follow up – How long should impacts last?
Evidence-Based Decision Making Cycle (SERVE, 2011)

1. Use data to identify need

2. Examine evidence & evaluate for validity & applicability

3. Use clinical expertise

4. Consider contextual considerations

5. Synthesize the information to inform decision-making

6. Monitor implementation

7. Evaluate outcomes

Reflect after each step.
Evidence-based tools to inform evidence-based decision-making

• Two examples of evidence-based systems for supporting evidence-based decision-making.
  – Communities that Care
  – PROSPER

• Both begin with community involvement in assessing needs and existing supports.

• Then evidence comes into play

• Finally infrastructure for implementation and sustainability
Communities that Care

(www.sdrg.org/ctcresource/)

• Coalition-based community prevention operating system that has evidence-based steps to selecting and sustaining evidence-based programs:

1. Assess community readiness
2. Form diverse and representative coalition
3. Conduct community assessment
4. Review assessment and available evidence on programs
5. Implement strategies and evaluate progress

• Evidence-based delivery system that facilitates sustained, quality delivery of evidence-based programs.

• 5 core elements:
  1. Community teams
  2. State-level partnerships
  3. Choose evidence-based program
  4. Development process focused on sustainability
  5. Ongoing evaluation
Evidence-informed decision-making about evidence-based programs or practices

• First question is – does it work?
  – Review of available evidence on the program/practice

• Second question – will it work for me?
  – Consider
    • Applicability of the evidence
    • Community context
    • Infrastructure
    • Politics
Take away

• Evidence-based programs by themselves do not guarantee results – just may increase the chances of obtaining results

• High quality implementation, monitoring, professional development are all necessary elements to support evidence-based programs.
References


• Jackson, R. (2010). Critical appraisal in 30 minutes. Presentation at the 16th Oxford Workshop on Evidence-Based Practice, Center for Evidence Based Medicine at Oxford University


• Rothwell, P. M. (2005). External validity of randomised controlled trials: “To whom do the results of this trial apply?” The Lancet, 365, 82-93.

References
