KK Women's and Children's Hospital
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Evidence-Based Practice in Social Work

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16th March 2010

PATIENTS, AT THE HEART OF ALL WE DO.

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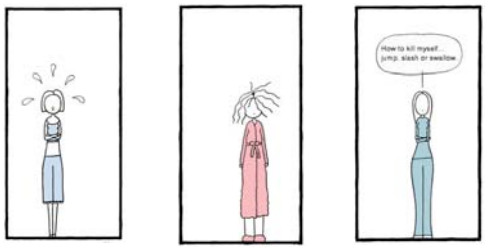
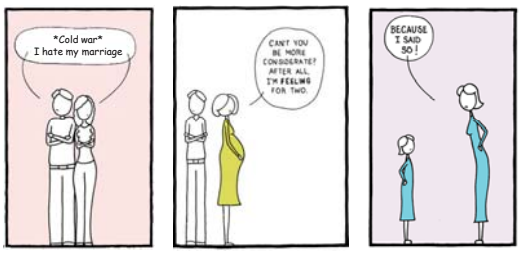


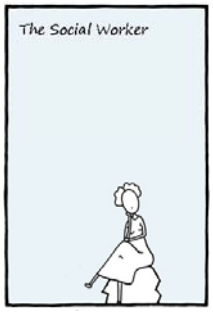
The depressed client | The unmotivated client | The suicidal client

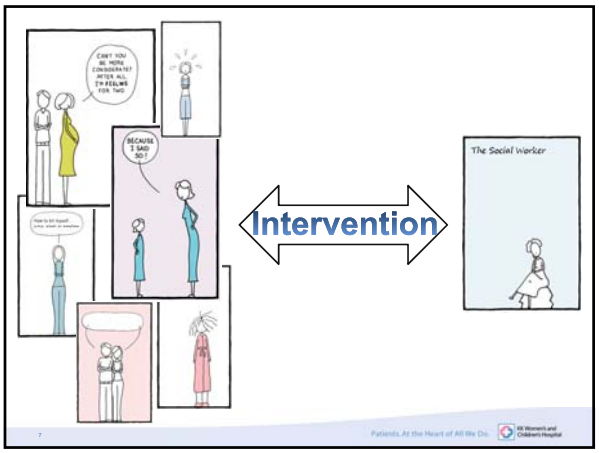
Our Clients



Marital Conflicts | Antenatal depression | Parenting

The Social Worker





Current Social Work Practice

How did we learn, how to do, what we are doing

- education (tertiary education)
- field work
- on-the-job training
- supervision by an experienced colleague
- continued education & training
- self (trial and error)

Current Social Work Practice

How do we know what we are doing is good, right, appropriate

- feedback from clients
- feedback from supervisor & peers
- measurement of outcomes
- or the absence of negative outcomes

Is this sufficient? Adequate?

Why EBP?

Why EBP?

Evidence based practice is

"the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients"

(Sackett, Richardson, Rosenberg & Haynes, 1997, p. 2)

It means integrating individual clinical expertise with the best available external clinical evidence from systematic research

- The need for evaluation of interventions,
  - a) to evaluate if what we are doing is effective
  - b) to evaluate if our intervention is harmful
- Accountability to our clients / patients
- Justification of the use of limited resources
- The recognition that we do not know everything, and even in the areas that we specialise in, we might not be kept up to date with the latest developments in the field.

Sackett, D. L., Richardson, W. S., Rosenberg, W., & Haynes, R. B. (1997). *Evidence-based medicine: How to practice & teach EBM.* New York: Churchill-Livingstone.

Why EBP?

- People have often been harmed because treatments/interventions have been based only on theories about how disease should be treated, without testing how the theories played out in practice
- Example 1 : Benjamin Spock
- Example 2 : Cambridge-Somerville Youth Study

Additional video resource

- The final days of King Charles II – why we need evidence-based healthcare

http://www.ti.ubc.ca/node/142

What is EBP?

What is EBP?

Evidence based practice is, "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients". It means integrating individual clinical expertise with the best available external clinical evidence from systematic research

- It involves:

Step 1 - Convert information need (prevention, assessment, treatment, risk) into an answerable question.

Step 2 - Track down current best evidence.

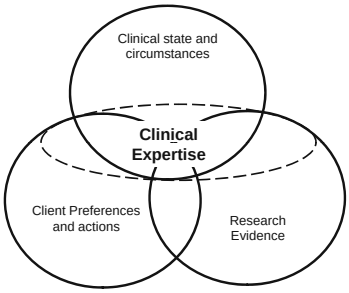
Step 3 - Critically appraise the evidence.

Step 4 - Integrate critical appraisal with practice experience, client's strengths, values, and circumstances.

What is EBP?
The EBP Model

Sackett et al., 1997

What is EBP?
Newest EBP Model



Haynes, Devereaux, and Guyatt, 2002

Developing a Clinical Question

Developing a Clinical Question

- Start with the patient: clinical problems and questions arise out of patient / client care
- Translate the clinical questions into a searchable question using PICO

P - Patient, Population or Problem	I - Intervention or exposure	C - Comparison	O - Outcome
• What are the characteristics of the patient or population? • What is the condition or disease you are interested in?	• What do you want to do with this patient (e.g. treat, diagnose, observe)?	• What is the alternative to the intervention (e.g. no treatment, alternative therapy)?	• What are the relevant outcomes (e.g. death, complications, quality of life, mental health measures)?
Example: • Children with behavioural problems	Example: • Group Work	Example: • Individual counselling session	Example: • Child Behavioural Checklist

Developing a Clinical Question

Question Types	P	I	C	O
	How would I describe a group of clients of a similar type? Be specific.	Apply a treatment; act to prevent a problem; measure to assess a problem; survey clients; screen clients to assess risk	What is the main alternative other than in the box to the left?	Outcome of treatment or prevention? Valid measure? Accurate risk estimation, prevented behaviour, accurate estimation of need?
Effectiveness Question *(effect of intervention)*	If disoriented aged persons who reside in a nursing home	are given reality orientation therapy	or validation therapy,	which will result in better orientation to time, place, and person?
Prevention Question *(forestall initial occurrence of problem)*	If sexually active students who are at higher risk for pregnancy	are exposed to "RealCare Programme" (computerized infant simulator)	as opposed to being exposed to didactic materials on the proper use of birth control methods,	will they have a) fewer pregnancies in a year? b) knowledge of birth control methods?
Assessment Question *(evaluate client problem, strengths, outcome)*	If elderly clients of a family service centre (FSC) who may be depressed or may have Alzheimer's disease or dementia	are administered depressing screening tests	or short mental status examination tests,	which measure will be the briefest, most inexpensive, valid, and reliable screening test to discriminate bet. depression and dementia?

Developing a Clinical Question

Question Types	P	I	C	O
	How would I describe a group of clients of a similar type? Be specific.	Apply a treatment; act to prevent a problem; measure to assess a problem; survey clients; screen clients to assess risk	What is the main alternative other than in the box to the left?	Outcome of treatment or prevention? Valid measure? Accurate risk estimation, prevented behaviour, accurate estimation of need?
Description Question *(client's perception of needs, satisfaction)*	If managers of social work agencies are concerned about staff burnout	administers a burnout checklist/inventory to his/her staff	N.A.	which will the staff list as their area(s) of greatest or least concern or satisfaction?
Risk Question *(chance of an undesirable event)*	If callers to a shelter for women who have been battered	are administered a risk-assessment scale by telephone	as opposed to practical judgment, unaided by a risk assessment scale, being relied upon,	will the risk-assessment scale have higher reliability and predictive validity for violent behaviour?

Adapted from Gibbs, L. (2003). Evidence-Based Practice for the Helping Professions

Searching for Current Evidence

Searching for Current Evidence

A simplified search strategy consist of the following steps:

1. Formulation of the research question and its scope
2. Identification of important concepts within the question
3. Identification of search terms to describe those concepts
4. Consideration of synonyms and variations of those terms
5. Preparation of the search logic

Searching for Current Evidence

Clinical Question :	Is CBT effective for treating abused children?

Key Concepts		
(A)	(B)	(C)
CBT	Children	Abused

- Once you've identified your key concepts, start to build your search term vocabulary. Consider using alternative search terms including broader, narrower, related terms.
- This process will ensure you get the broadest possible coverage of the literature when you search. Alternative search terms may be found via your background reading, thesauri, and subject fields in search tools.

Searching for Current Evidence

Consider	**Example**
• Synonyms	• Abuse, maltreatment, ill-treatment, neglect, exploitation, mistreatment
• Acronyms	• CBT (Cognitive behavioural / behavioral therapy)
• Variations in spelling of terms	• Paediatric (U.K.), Pediatric (U.S.)
• Plurals	• Child, children
• Scientific and common names	• *Phascolarctos cinereus,* koala
• Terminology peculiar to a country	• Car (Australian), vehicle (U.S.)

Searching for Current Evidence

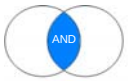
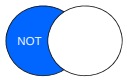
Key Concepts		
(A)	(B)	(C)
CBT	Children	Abuse
• Cognitive Behavioural Therapy • Behavioural therapy • Cognitive therapy • Cognitive behavioural modification • Rational Emotive Behavioural Therapy • etc	• Child • Children • Kid (you might get articles about goats) • Infant / Toddler • Teen / Teenager • Adolescent • etc	• Abuse • Maltreatment • Ill-treatment • Neglect • Exploitation • Mistreatment

Searching for Current Evidence

MeSH	MeSH is the National Library of Medicine's controlled vocabulary thesaurus. It consists of sets of terms naming descriptors in a hierarchical structure that permits searching at various levels of specificity.
Subject / Keyword	Similar to MeSH
Truncation	Child* - (Child, children) Therap* - Therapy, therapies, therapeutic, therapeutics
Wildcards (?, #)	M?n – Man, men Colo?r – colour, color

Searching for Current Evidence

Boolean Operators - Most library catalogues, databases and Internet search tools use Boolean operators to combine search terms

AND	OR	NOT
•The **AND** operator ensures only records that include all the terms are found. •Use **AND** to combine your different concepts. This will narrow your search.	•The **OR** operator ensures records that include either term are found. •Use **OR** to combine words with similar meaning (synonyms) and other alternative search terms. This will broaden your search.	•The **NOT** operator ensures records that include the first term, but not the second term are found. •Use **NOT** with caution because you may inadvertently exclude useful material.
		

Searching for Current Evidence

Publication Types

- Reference materials
- Books
- Periodicals
- Conference proceedings
- Other grey literature (thesis, internal publications)
- Standards / Clinical guidelines
- Audiovisual materials
- Web pages

Sources

- Use of search platforms, such as OVID, PubMed, which consists of databases of journals
- Google Scholar
- ProQuest (grey literature – PhD thesis)

Resource (Examples)

http://www.lib.utk.edu/instruction/learnhow/searchstrategy7.html

http://www.chmg.de/Files/Internet-files/Forms/How%20to%20develop%20a%20search%20strategy-support-manual.pdf

http://www.tru.ca/library/pdf/developing_effective_search_strategies.pdf

Appraising the Evidence

Appraising the Evidence

Relationship among Research Type, Question and Design

- One way of assessing the quality and validity of the research you have found is to consider if the type of research methodology that has been used is appropriate.
- The kind of question that you are asking will affect where you look for the answer and also the type of study that you should find.

Type of Research	Research Question	Research Design
Descriptive	• What is happening? • How is something happening? • Why is something happening?	• Simple Descriptive • Comparative Descriptive • Correlational
Experimental	• Does something cause an effect?	• Experimental • Quasi-experimental

Appraising the Evidence
Research Questions – Descriptive

Examples of Descriptive Research Questions

- *What* is the association between single-parent households and the child's behavioural and emotional problems?
- *How* does the level of behavioural and emotional problems differ among children whose parents are divorced, widowed or single?
- *Why* does single-parenthood impact on a child's development?

Appraising the Evidence
Research Design – Descriptive

Example of Descriptive Research Designs

Simple Descriptive	Comparative Descriptive	Correlational
A simple descriptive research design is used when data are collected to describe persons, organizations, settings, or phenomena.	With a comparative descriptive design, the researcher describes two or more groups of participants.	A correlational research design is used to describe the statistical association between two or more variables.
For example, a researcher administers a survey to a random sample of students in order to describe the characteristics of these students	For example, a researcher administers a questionnaire to three groups of students who come from different family structures (single parent, divorced parents, widowed parents).	For example, a researcher measures the child's behavioural and emotional outcomes. Next, the researcher uses statistical techniques to measure whether there is a relationship between family structure and child outcomes.

Appraising the Evidence
Research Questions & Designs – Experimental

Example of Experimental Research Question

- *Does* positive parenting reduce behavioural and emotional problems in children from single-parent households?

Example of Experimental Research Design

•In experimental research, the researcher manipulates or varies an independent variable and measures its effects on one or more dependent variables.

• In a **true experimental design**, the researcher randomly assigns the participants who are being studied (also called the subjects) to two or more comparison groups. Sometimes the comparison groups are referred to as treatment and control groups. Participants in the treatment group receive some type of treatment, such as a special reading program. Participants in the control group do not receive the treatment.

• For example, a researcher randomly assigns the parents of students from single-parent households to receive positive parenting training. At the end of the intervention, the researcher measures the students' behavioural and emotional outcomes, and compares the scores between both groups.

Appraising the Evidence
Research Questions & Designs – Experimental

• In a **quasi-experimental design**, the researcher does not randomly assign participants to comparison groups, usually because random assignment is not feasible. To improve a quasi-experimental design, the researcher can match the comparison groups on characteristics that relate to the dependent variable.

• For example, a researcher selects matches the students in terms of socioeconomic status, parental educational level, which are potential variables that are related to parenting and a child's behavioural and emotional outcomes.

• The researcher could also have a **wait-list control design**. For example, 20 parents are interested in attending the positive parenting training, but due to limited resources and practicality, the group size is limited to 10 parents per run. The researcher can randomise the parents into 2 groups and compare the outcome variables between the groups after the 1st group had received their training.

Integration

Integration

Integrate critical appraisal with practice experience, client's strengths, values, and circumstances

Additional References:

Gibbs, L., & Gambrill, E. (2002). Evidence-Based Practice: Counterarguments to Objections. *Research on Social Work Practice*.12: 452-476

http://pkuebm.bjmu.cn/files/EBM%20what%20if%20is%20and%20what%20if%20is%20not.pdf

Summary

Summary

Steps in EBP	Tools
Step 1 — Convert information need (prevention, assessment, treatment, risk) into an answerable question	PICO
Step 2 — Search for current best evidence.	OVID Tutorial http://www.ovid.com/site/help/recorded_webex.jsp?top=28&mid=29 PubMed Tutorial http://www.nlm.nih.gov/bsd/disted/pubmedtutorial/020_010.html
Step 3 — Critically appraise the evidence.	http://www.phru.nhs.uk/Pages/PHD/resources.htm http://www.cebm.net/index.aspx?o=1157
Step 4 — Integrate critical appraisal with practice experience, client's strengths, values, and circumstances	

Thank you