Brown School EBP Handbook

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August 2014
Chapter 2: Framing an empirical question

Students will learn to

- Frame an empirical question, and
- Identify elements of an empirical question.

To effectively find literature with possible answers to the situation you are researching, you must develop an empirical question. Cournoyer (2004, p.3) defines empirical as “an adjective that refers to phenomena that may be observed or experienced, or can be proved or disproved through experimentation or observation.” B. Drake (personal communication, March 23, 2010) states that questions must be two things...

- Empirically answerable, meaning answerable by data, not opinion, philosophy. That’s the “Evidence-Based” part of EBP.
- Helpful to your work. That’s the “Practice” part of EBP.

Framing an empirical question can be most difficult. The question should be specific and client oriented.

Possible solutions should be practical. If the therapy/solution/treatment

- is unavailable in the area where the client is located;
- too expensive; or,
- not intended for the gender, age group, or ethnicity of your client,

it is not practical and should be disregarded.

Conduct a thorough, evidence-based search of the literature to determine the best evidence available for the client and situation.

Sackett (1998) indicated in his groundbreaking work that every question should include multiple parts, best expressed by the acronym PICO:

P - a Patient, client, community or group
I - an Intervention that is being suggested or found
C - a Comparison to something (and sometimes nothing)
O - an Outcome

Sometimes clients and situations in social work and the behavioral sciences are not as easily identified. Gibbs (2003) uses an acronym that applies more specifically in our field, COPES:

CO - a Client Oriented, community, group,
P - is Practical
ES - an Evidence-based Search
PICO and COPES assist us in identifying the elements of our search and formulating more specific questions. The *phrasing* of this question determines how to search the literature. The question should not be phrased to anticipate an outcome, intervention, or result. It should be stated in neutral terms. The same circumstances can result in several different *types of questions*. Once the question is framed, a search of the literature can proceed.

When identifying the elements of your question, be as specific as possible:

- Is there an age group: adolescents, middle aged, or toddler?
- Is there a specific population: African American, Latino, Hmong?
- Is the gender significant? Include it when appropriate.
- Are you researching the effectiveness of a specific program or policy?

All of these elements are factors in retrieval of information and will enter into the evaluation of the available evidence.

**Examples:**

Do elementary school children who attend gym class five days per week have fewer in-class behavioral problems compared to those who attend gym class twice per week?

Do smokers have a lower incidence of relapse after completing group therapy for smoking cessation compared to those who only use nicotine gum?

Does a life-skills training program improve the on-time performance of recently employed teens?

Is cognitive behavioral therapy more effective than brief therapy in reducing test anxiety in adolescents?

Is pet therapy more effective than music therapy in calming down nursing home residents with Alzheimer's disease?