Evidence Based Public Health Practice Workshop

Learning Objectives

- Demonstrate knowledge about EBP in PH.
- Demonstrate proficiency in literature retrieval methods for EBP.
- Demonstrate proficiency in accessing print & electronic resources for EBP.
- Demonstrate proficiency in identifying & accessing databases for evidence based PH interventions.
Disseminating the Evidence Base in Public Health Nursing

Information on the EBPHN grant
National Library of Medicine

Website:
http://ebphn.lib.uic.edu

EBPHN Project: Partners

- UIC Library of the Health Science – Peoria
- UIC College of Nursing – Peoria

Module I:
Intro to EBPHN Grant & Public Health Nursing

Kathy Baldwin, PhD, RN
Evidence-Based Practice

EBP
Application of evidence derived from research

EBP improves patient outcomes

EBPH

Adopting evidence-based strategies to address

- population-based interventions
- public health challenges

The Effectiveness of AIDS Prevention Efforts

HIV Prevention: State-of-the-Art

Commissioned by the Office of Technology Assessment

Compiled and Produced by the American Psychological Association Office on AIDS

PHN Shift to Population-based Interventions
PHN Paradigm Shift

PHN looking beyond the individual & family to include broader primary prevention strategies to promote and ensure health and improved quality of life for a community or population.

Population-Based Public Health Nursing Practice

Considers all levels of practice – individual/family, community, systems
Population-Based Public Health Practice

Reaches out to community, not just targets of study

Population-Based Public Health Practice

Creates healthy environment, social, economic conditions for population to thrive
Population-Based Public Health Practice
Collaborates with members of other professions/organizations

Evidence in Public Health Nursing Practice

Why Evidence-based Practice?
- Constant new evidence generation
- Need daily, but usually don’t have
- Knowledge & performance deteriorate over time
- Traditional CE ineffective
- EBP proven to keep MDs up-to-date
Advantages to Using EBPHN

- Higher likelihood of success
- Identify common indicators
- New knowledge generated
- Defend/expand existing program
- Advocate for new programs

Evidence Based Public Health

What is “Evidence”?

"...the available body of facts or information indicating whether a belief or proposition is true or valid."
Public Health Practice

In public health practice, evidence is brought together from:
- Data or scientific evidence
- Input from community members
- Input from other stakeholders
- Professional experience

Evidence-based Public Health Nursing

Evidence-based = Previous research results demonstrate effectiveness
- What has been done.
- How did it work?
- How can I use the information?

Key Differences Between EBP & EBPHN

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>EBP</th>
<th>EBPHN</th>
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<tbody>
<tr>
<td>Quality of Evidence</td>
<td>Experimental Studies</td>
<td>Observational &amp; Quasi-experimental</td>
</tr>
<tr>
<td>Volume of Evidence</td>
<td>Large</td>
<td>Small</td>
</tr>
<tr>
<td>Time to outcome</td>
<td>Usually Short</td>
<td>Usually Long</td>
</tr>
<tr>
<td>Professional training</td>
<td>License &amp; Certification</td>
<td>License &amp; Little Certification</td>
</tr>
<tr>
<td>Decision-making</td>
<td>Individual</td>
<td>Team</td>
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Quality of Evidence

I. At least 1 randomized controlled trial
II-1. Well-designed controlled trials without randomization
II-2. Well-designed cohort or case-control analytic studies (> 1 center or research group)
II-3. Multiple time series with or without intervention
III. Opinions of well-respected authorities, based on experience, descriptive studies & case reports.

Realistic Evidence-Based Rating Scale

Class 0: Things I believe
Class 0a: Things I believe despite the available data
Class 1: Randomized controlled trials that agree with what I believe
Class 2: Other prospectively collected data
Class 3: Expert opinion
Class 4: Randomized controlled trials that don’t agree with what I believe
Class 5: What you believe that I don’t

Comparison of Types of Scientific Evidence

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Type I</th>
<th>Type II</th>
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</thead>
<tbody>
<tr>
<td>Typical data</td>
<td>Strength of risk-disease</td>
<td>Relative effectiveness of</td>
</tr>
<tr>
<td>relationship</td>
<td>relationship</td>
<td>PH intervention</td>
</tr>
<tr>
<td>Common setting</td>
<td>Clinic or controlled</td>
<td>Socially intact groups</td>
</tr>
<tr>
<td></td>
<td>community setting</td>
<td>or community</td>
</tr>
<tr>
<td>Quantity of evidence</td>
<td>More</td>
<td>Less</td>
</tr>
<tr>
<td>Action</td>
<td>“Something should be done.”</td>
<td>“This should be done.”</td>
</tr>
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**Evidence-based Public Health Nursing**

The process of:
- Developing
- Implementing
- Evaluating proven programs or policies

To positively impact the health of a defined population

**Question?**

How Do We Practice within an Evidence-based Framework?

- Life-long, self-directed learning
- Convert info needs into answerable ?’s
- Track down best evidence to answer ?
- Critically appraise evidence for validity & utility
- Apply results
- Evaluate performance

Flowchart of evidence-based health care (adapted from Jenicek in Brownson)
Sequential Framework for Enhancing Evidence-based Public Health
(Brownson, et al.)

- Develop an initial statement of the issue
- Quantify the issue
- Search the scientific literature & organize information
- Evaluate the program or policy
- Develop & prioritize program options
- Develop an action plan & implement interventions
- Re-tool
- Implement
- Refine the issue

Tools: Rates & Risks
Surveillance Data
Tools: Systematic Reviews,
Risk Assessments, Economic
Data

Practice-Based Evidence

Evidence-Based Public Health

“Evidence is limited for many public health interventions, yet approaches should be based on the best possible science, be multidisciplinary and center on sound planning and evaluation methods”

Evidence-Based Public Health
Ross C. Brownson
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