The Art of Evidence Based Nursing

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Evidence-based practice: a definition?

- 14 (selected) definitions 1995-2000
- No commonality
- Some elements:
  - Best evidence
  - Individual patients
  - Groups of patients
  - Clinical expertise
  - Research
  - Problem solving
  - Clinical decision-making
  - Effectiveness of interventions
  - Patient values

“The conscientious, explicit and judicious use of current best evidence about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research”

Sackett et al., *British Medical Journal* 1996; p.71
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Evidence based practice ≠ evidence based medicine ≠ evidence based nursing ≠ evidence based healthcare
Evidence-based nursing:

“conscientious, explicit and judicious use of theory-derived, research based information in making decisions about care delivery”

Ingersoll GL, *Nursing Outlook* 2000; 48: 152
What constitutes evidence?

- Knowledge derived from systematic research
  - Other forms of knowledge?
- Knowledge derived from specific research strategies
  - Hierarchies of evidence
<table>
<thead>
<tr>
<th>Level of evidence</th>
<th>Study design</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Evidence obtained from a systematic review of all relevant randomised controlled trials.</td>
</tr>
<tr>
<td>II</td>
<td>Evidence obtained from at least one properly-designed randomised controlled trial.</td>
</tr>
<tr>
<td>III-1</td>
<td>Evidence obtained from well-designed pseudorandomised controlled trials (alternate allocation or some other method).</td>
</tr>
<tr>
<td>III-2</td>
<td>Evidence obtained from comparative studies (including systematic reviews of such studies) with concurrent controls and allocation not randomised, cohort studies, case-control studies, or interrupted time series with a control group.</td>
</tr>
<tr>
<td>III-3</td>
<td>Evidence obtained from comparative studies with historical control, two or more single arm studies, or interrupted time series without a parallel control group.</td>
</tr>
<tr>
<td>IV</td>
<td>Evidence obtained from case series, either post-test or pretest/post-test.</td>
</tr>
</tbody>
</table>
Often criticised:

- Applicable only to assessment of interventions
- Exclude:
  - Diagnostic*
  - Prognostic*
  - Aetiological*
  - Screening*
  - Qualitative research
  - Basic science

* New hierarchies created, currently being piloted
What is wrong with hierarchies?

- Usage vs intent
- An excuse *not* to change practice
- Reviews that only include RCTs may create, rather than reduce, bias
- Most reviews exclude more studies than they include
Other concerns

- Emphasis on aggregated data
  - At odds with holistic care tailored to individual patients
- Assumption that findings can be generalised across contexts
  - Knowledge of local conditions
- Role of expertise?
- Patient values?
Child- and family-centred evidence based care

Adapted from Rycroft-Malone et al., *J Adv Nurs* 2004; 47:81-90
A form of professional artistry
  - Critical appreciation
  - Synchronicity
  - Balance
  - Interplay

“As we are not entirely clear how this occurs, we also do not know how best it could be facilitated”

Rycroft-Malone et al., J Adv Nurs 2004; 47:88
Process of EBN

1. Formulate answerable question
2. Find evidence from research
3. Appraise for validity and usefulness
4. Implement change
5. Evaluate performance

Information need
Learning development need

Newman et al., *Evid Based Nurs* 2006; 9:4-7
Formulate an answerable question

- How do we decide to ask the question?
  - prioritising

- Emphasis on problem-solving
  - “If it ain’t broke don’t fix it”?
    - How do we know it’s not broken?

- Stimulants to questioning practice
  - Discovering alternatives
    - Mixing with other nurses; visiting other units; reading journals
  - Reflective practice
Find and appraise evidence

- Access
  - Databases
  - Journals
- Search skills
- Appraisal/critiquing skills
  - Research knowledge
- Determining applicability
  - Particular patient or context
Implement change

- Change is complex
- Acceptance and resistance are not simple, defined responses
- Organisational culture
- Professional culture
- Nature of the practice to be changed
- Nature of the evidence
- Presence of change facilitators
Why Evidence-Based Nursing?

“...the success of EBP activities will be marked by the degree to which practice is influenced and changed as a result.”

Aranda, S. Australian Journal of Advanced Nursing 1999; 16(4): 5-6

Is EBN an end in itself?
Outcomes not process

- Health outcomes
  - Mortality
  - Disability
  - Freedom from pain
  - Peaceful death
  - Parent satisfaction
  - ……………………

- Staff satisfaction/development/growth

- Economic benefits

- Efficiency
Evidence-based practice? or Quality improvement?
Quality improvement strategies should be evidence-based

Implementation of evidence requires quality evaluation

- Are the intended outcomes achieved?

“It is not good enough for us to assume that simply because we have applied evidence to our practice that it has actually made a difference”

Fulbrook & Harrison, Connect 2006; 5: 1
What is the art of evidence based nursing?

Making a measurable difference

Examination of processes is useful to increase understanding and facilitation but should never replace the examination of outcomes