Dialogue on Best evidence nursing education

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Need for Evidence-Based Teaching

“lt is often unclear whether developments in educational thinking and practice are better, or worse, than the regimes they replace” Davies, P., (1999). What is evidence-based education? British Journal of Educational Studies 47(2):108-121.

“academic attitudes of researcher appeared to change when educational issues were discussed. Critical appraisal & scientific scrutiny were suddenly replaced by personal experiences & beliefs, & sometimes by traditional values & dogmas.” Van der Vleuten, C. (1995) Evidence-based education. Advance sin Physiology education 14(1):S3
Best evidence medical education

Harden et al, 2000

- Opinion-based Teaching

OR

- Evidence-based Teaching
Best Evidence Medical Education

Opinion-based teaching

Evidence-based Teaching
Table II. The QUESTS dimensions for evaluating evidence in educational practice

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Question</th>
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<tr>
<td>1. Quality</td>
<td>How good is the evidence?</td>
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<td>2. Utility</td>
<td>To what extent can the method be transferred and adopted without modification?</td>
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<td>3. Extent</td>
<td>What is the extent of the evidence?</td>
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<td>4. Strength</td>
<td>How strong is the evidence?</td>
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<td>5. Target</td>
<td>What is the target? What is being measured? How valid is the evidence?</td>
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<tr>
<td>6. Setting</td>
<td>How close does the context or setting approximate? How relevant is the evidence?</td>
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Figure 4. A modified version of Kirkpatrick’s hierarchy of levels of evaluation.
Figure 5. In the practice of medical education the actions taken by the teacher are often not matched by an understanding of the actions and even less frequently by research evidence in support of them.
Appraisal instrument for educational interventions

Morrison et al, 1999

- Scholarly teaching requires educators to assess effectiveness of own teaching-learning approaches
- To what extent does educational activity approximate achievement of goals or objectives (clarity of intent crucial)
- Understanding of terminology affects outcomes of education
- Resource: The Campbell Collaboration (Like Cochrane with education focus)

http://www.campbellcollaboration.org/about_us/index.php

- Need an appraisal tool for reviewing literature
  (UK tool used for educational journal club discussions)
1. Is there a clear question which the study seeks to address? Have the authors explained why a study was required, e.g. a new learning method is being evaluated or an established method has not been studied rigorously before to ensure that it addresses the purpose for which it was designed? This should be clear from the title or the abstract. This question should not be confused with the next one.
2 Is there a clear learning need which the intervention seeks to address?
Are the aims of the intervention clear and explicit and are the objectives specific, observable and achievable with the domain (knowledge, skills or attitudes) identified? Does the learning experience address a need identified by the learners or teachers?
3 Is there a clear description of the educational context for the intervention?

- Does it affect a curriculum, a course, a module or a session?
- Is its place in the overall course identified?
- Are the students described — number, age, stage, prior knowledge of the subject?
- Is the setting described — institution, physical environment?
- Is the setting sufficiently similar to your own and/or representative of real life?
Appraisal instrument for educational interventions
Morrison et al, 1999

representative of real use?

4 Is the precise nature of the intervention clear?

- Why was the intervention chosen?
- How was it organized, materials used (structure)?
- How did it run in practice (process)?
- What ground was covered (content)?
- Was the length and intensity sufficient to allow measurable change?
5 Is the study design able to answer the question posed by the study?
It may not be possible to choose the ideal design for a study to test an educational method, e.g. randomized controlled trials are infrequently reported. However, a randomized controlled trial or other robust form of evaluation should be considered whenever any major educational change is suggested.

6 Are the methods used within the design capable of appropriately measuring the phenomena which the intervention ought to produce?
Is there an appropriate mix of qualitative and quantitative methods?
7 Are the outcomes chosen to evaluate the intervention appropriate?
Are they reliable, i.e. they consistently yield similar results? Are they valid, i.e. the measurements truly characterize the variables of interest?

8 Are there any other explanations of the results explored in the study?
For example, maturation or selection bias in the student population.

9 Are any unanticipated outcomes explained?
In order to illustrate how this instrument might be applied in practice, we have used the method of starting with a real educational problem in general practice.
References for dialogue

