



Best Evidence Medical Education (BEME)

Department of international Cooperation for
Medical Education

Wu Han

contents

- 01** The Need for Evidence-Based Teaching
- 02** Problems with Evidence-Based Teaching
- 03** The Concept of Best Evidence Medical Education (BEME)
- 04** Grading of Evidence
- 05** Use of QUESTS in Best Evidence Medical Education



great a degree of internal
dissension

In medical education, change is very much on the
political, professional and public agenda

New approaches may be with much rhetoric
but little real, reliable or valid evidence.



**more
critically**

- “the evidence base is as important in educating new doctors as it is in assessing a new chemotherapy”
- “Ultimately research into teaching and learning in medicine”
- “has its impact at the bedside, in the consulting room and in the wider community. Research in medical education matters.”



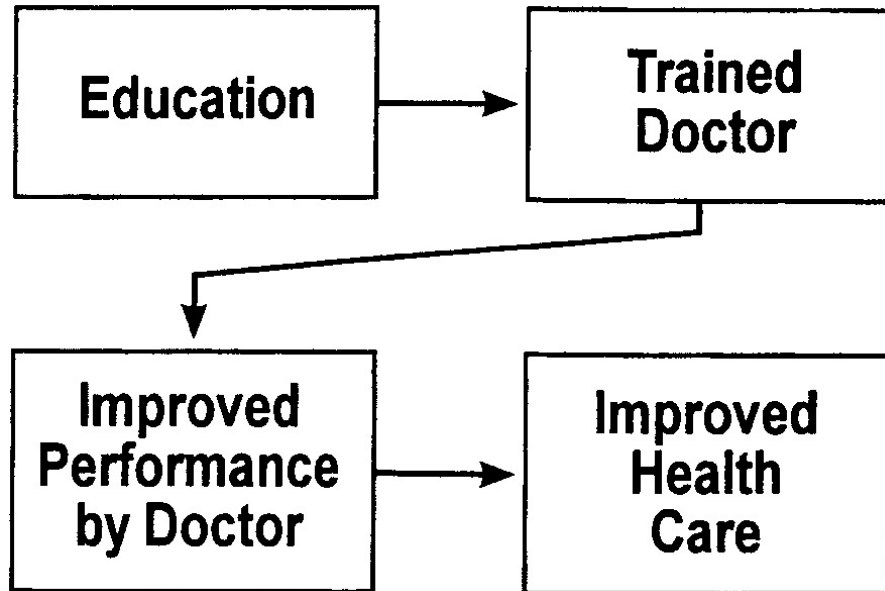
Lack of evidence should not be used by teachers as an excuse for a failure to adopt an evidence-based approach to their teaching practice.

evidence-based principles
not applied to teaching

evidence-based principles
applied to teaching

- research in education may be more complex, confounding factors may be more apparent, content may be more implicit and controlled trials may be difficult.

evidence-based principles
not applied to teaching



evidence-based principles
applied to teaching

evidence-based principles
not applied to teaching

- research in education may be more complex, confounding factors may be more apparent, content may be more implicit and controlled trials may be difficult.
- the impact of education on patient care and the health of the community is less direct than with medical interventions such as a new drug or surgical procedure

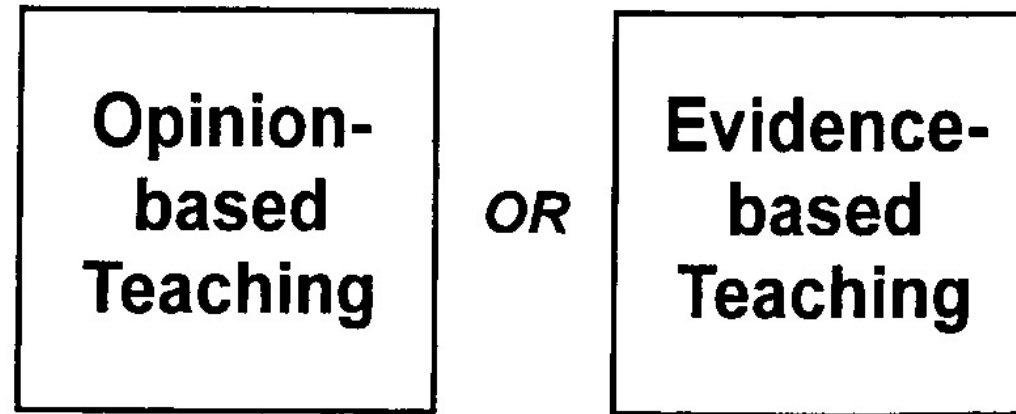
evidence-based principles
applied to teaching

evidence-based principles not applied to teaching

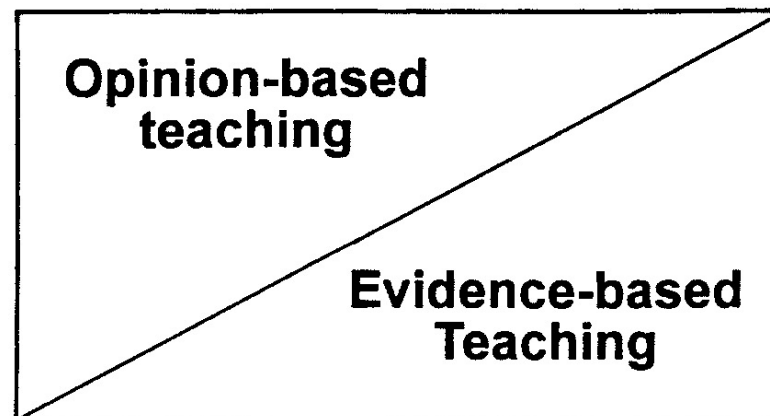
- research in education may be more complex, confounding factors may be more apparent, content may be more implicit and controlled trials may be difficult.
- the impact of education on patient care and the health of the community is less direct than with medical interventions such as a new drug or surgical procedure.

evidence-based principles applied to teaching

- compared to medicine, education faces very similar, problems of complexity, context specificity, measurement and causation.
- Many of the problems about the complexity of education and social interventions and their evaluation apply to health care.



Best Evidence Medical Education



Best Evidence Medical Education

Taking a best evidence-based approach to medical education questions forces educators to :

1. Comprehensively critically appraise the literature that already exists in the area, and categorize the power of the evidence available, and
2. Identify the gaps and flaws in the existing literature and suggest (and if possible carry out) appropriately planned studies to optimize the evidence necessary to make the proposed educational intervention truly evidence based.

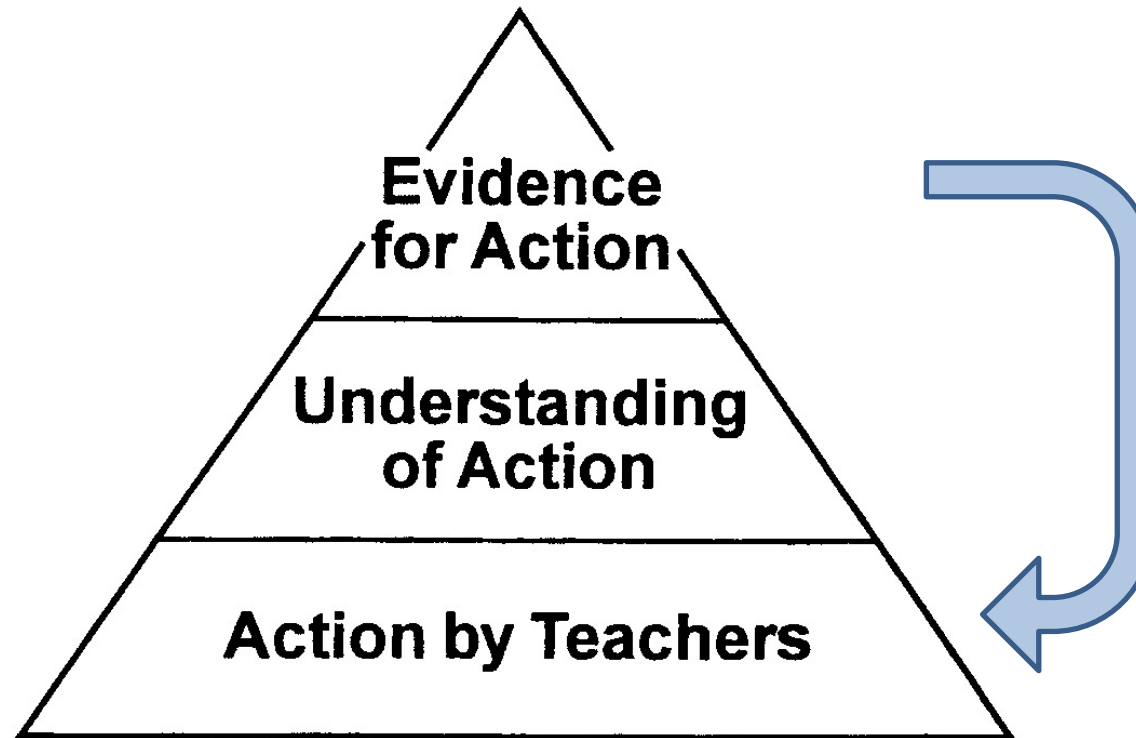
Table I. An example of the definitions of the evidence used by the US Agency for Health Care Policy and Research and the Scottish Intercollegiate Guidelines network (SIGN)

-
- i) Evidence obtained from meta-analysis of randomised controlled trials.
 - ii) Evidence obtained from at least one randomised controlled trial.
 - iii) Evidence obtained from at least one well-designed controlled study without randomisation.
 - iv) Evidence obtained from at least one other type of well-designed quasi-experimental study.
 - v) Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies.
 - vi) Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities.
-

Table II. The **QUESTS** dimensions for evaluating evidence in educational practice

1. Quality	How good is the evidence?
2. Utility	To what extent can the method be transferred and adopted without modification?
3. Extent	What is the extent of the evidence?
4. Strength	How strong is the evidence?
5. Target	What is the target? What is being measured? How valid is the evidence?
6. Setting	How close does the context or setting approximate? How relevant is the evidence?

It is very difficult to undertake meaningful research in education. The variables are too diffuse and difficult to identify.



Idealization

Best Evidence Medical Education

Q uality	A	B	C
U tility	A	B	C
E xtent	A	B	C
S trength	A	B	C
T arget	A	B	C
S etting	A	B	C

Actually

Best Evidence Medical Education

Q uality	_____X_____
U tility	_____X
E xtent	_____X_____
S trength	_____X_____
T arget	_____X_____
S etting	X_____

The adoption of Best Evidence Medical Education does not require the teacher to be a researcher in education. It does require the teacher to be able to appraise the evidence available and come to a decision on the basis of his or her clinical judgement.

Teachers think critically about what they are doing, look at the best evidence available and on the basis of this make decisions about their teaching practice.

THANK YOU !