Evidence Based Reproductive Health Information

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Training Course in Sexual and Reproductive Health Research
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Evidence-Based Reproductive Health information

- Steps from evidence-based information to change in clinical practice
- Training Evidence-Based Medicine in Reproductive Health

Evidence-Based Medicine

- Encourages the integration of contemporaneous patient-oriented research knowlege into medical decision making
- Integrates concepts of problem-based, life long learning
- However, still not widely used

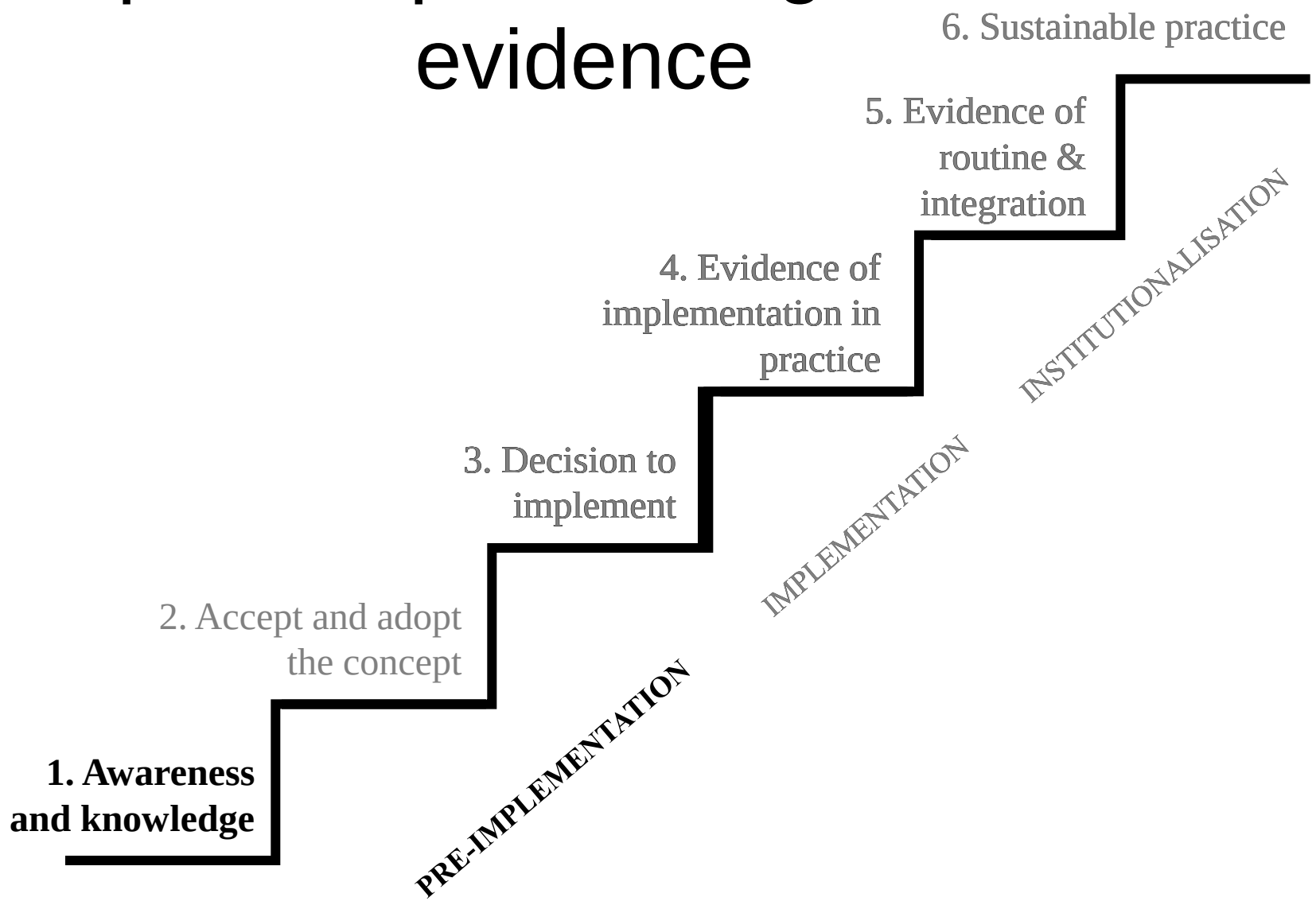

in the news...
JAMA

When can change succeed?

- Characteristics of the evidence
  - Health topic, level of evidence, compatibility...
- Interventional strategies
  - Small group meetings, audit & feedback...
- Barriers
  - Health carer, patient, organisational

» *Grol 2003, Grimshaw 2003*

Steps in implementing research evidence

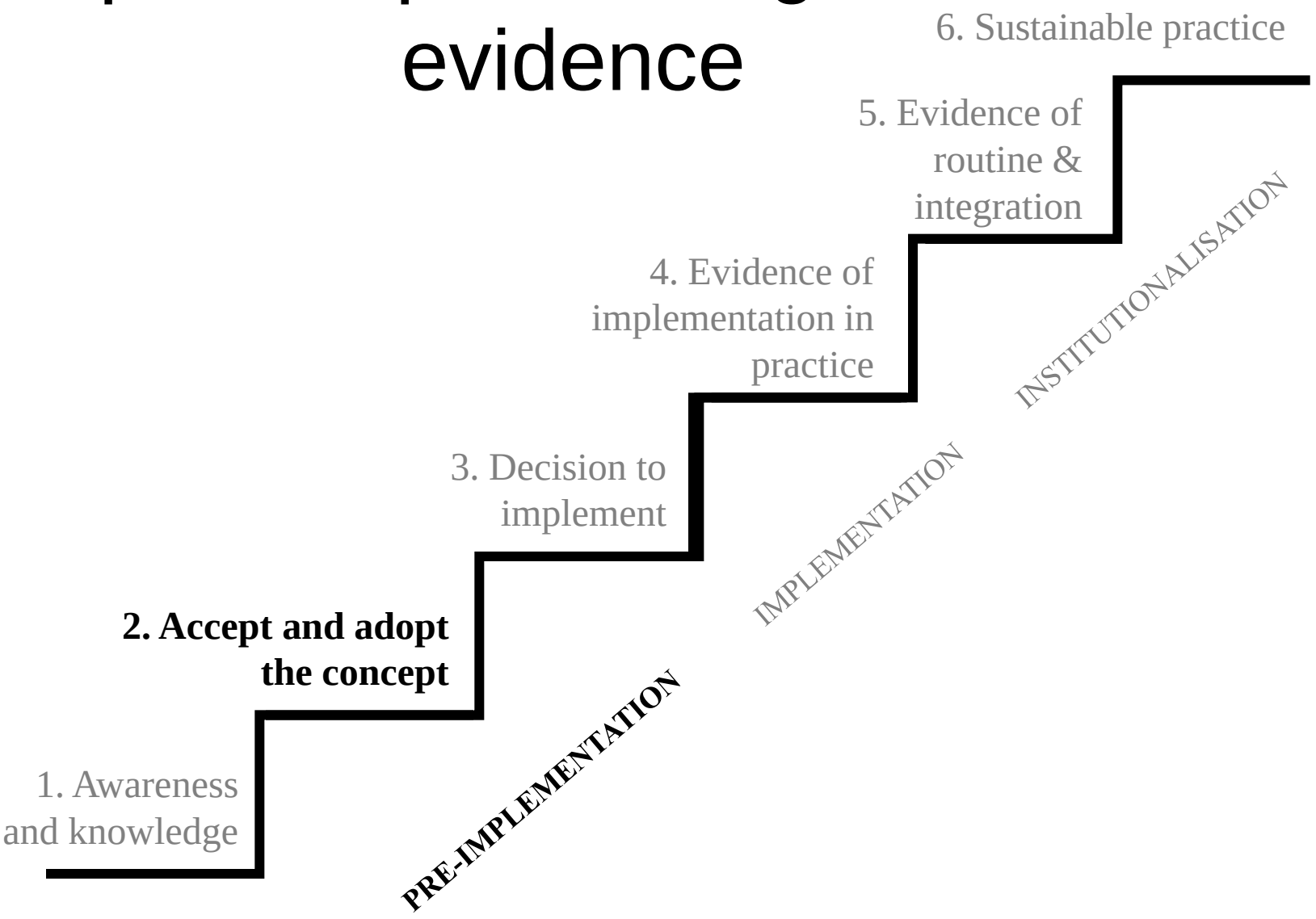


Awareness of new information

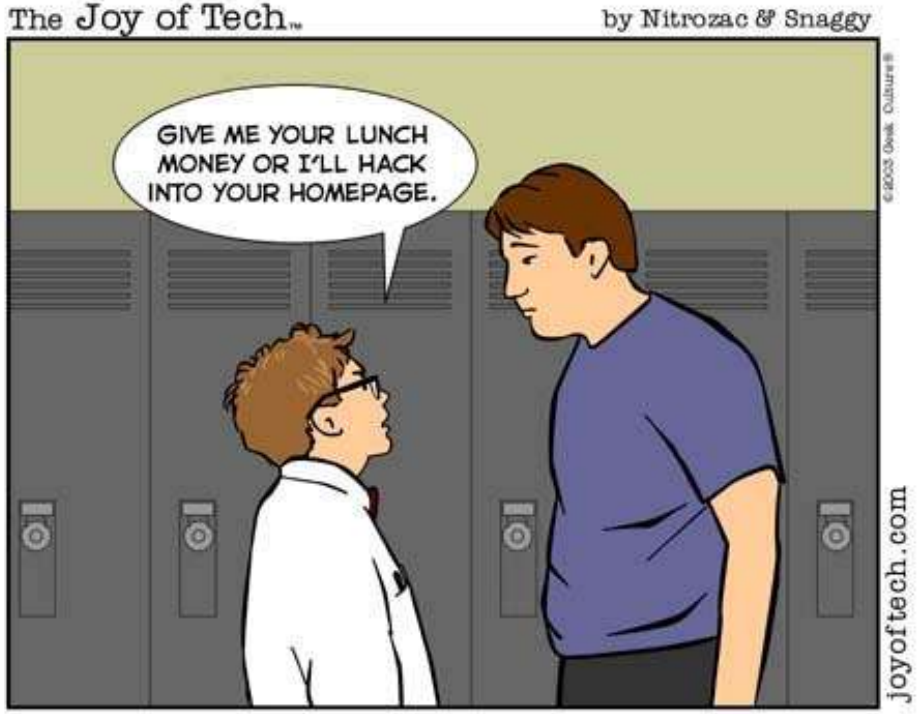
- ‘knowledge-pull’ – clinical question
- ‘knowledge-push’ – Journal club meetings
  - Interactive discussions
  - Clinically integrated model

Coomarasamy 2004

Steps in implementing research evidence

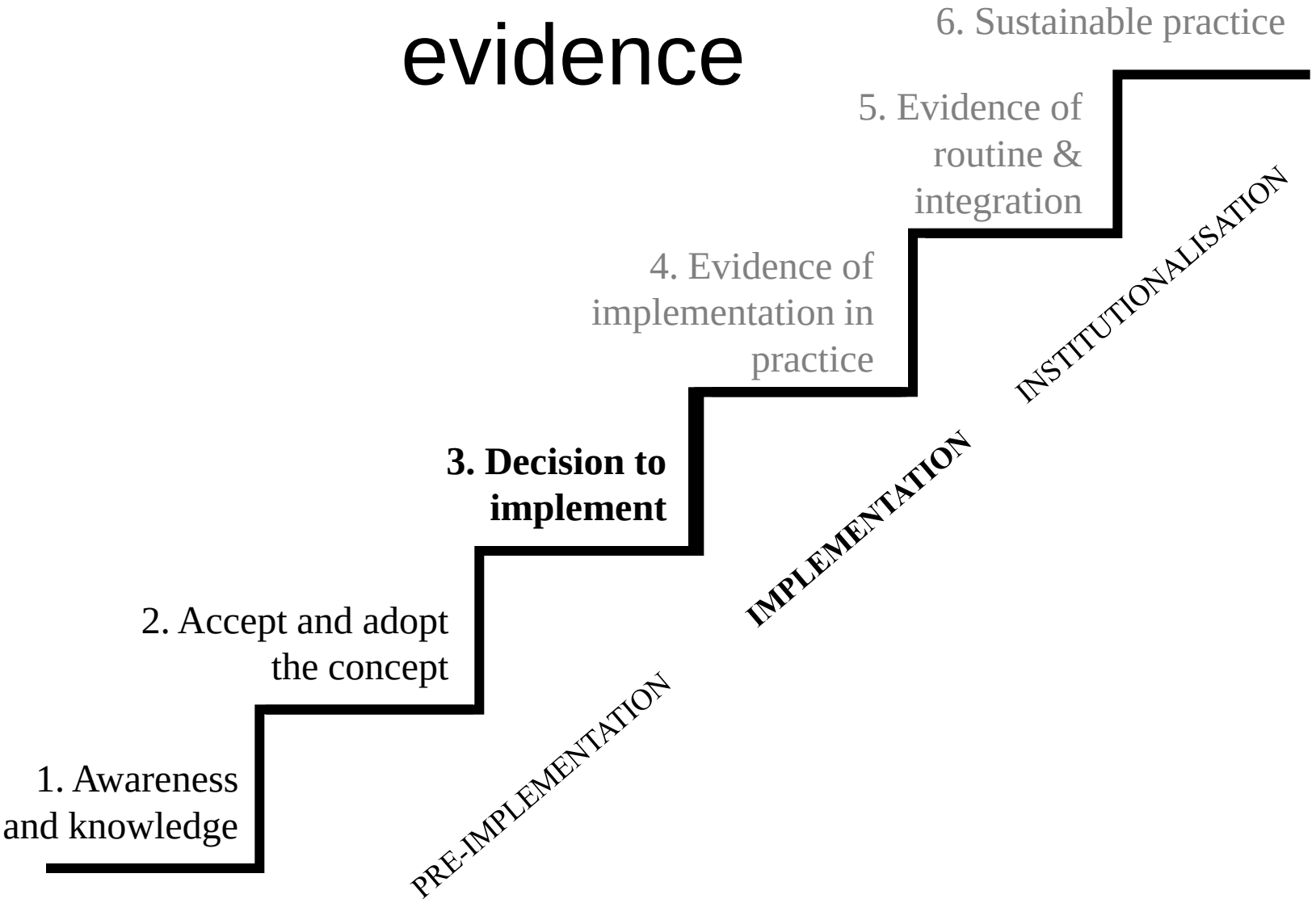


Persuasion



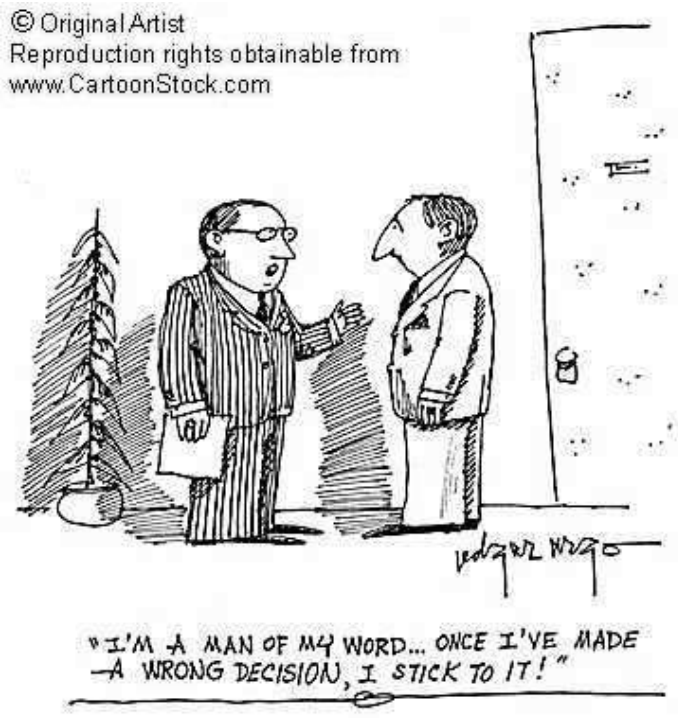
Millions of years of evolution are finally paying off for *Geeko Sapiens.*

Steps in implementing research evidence

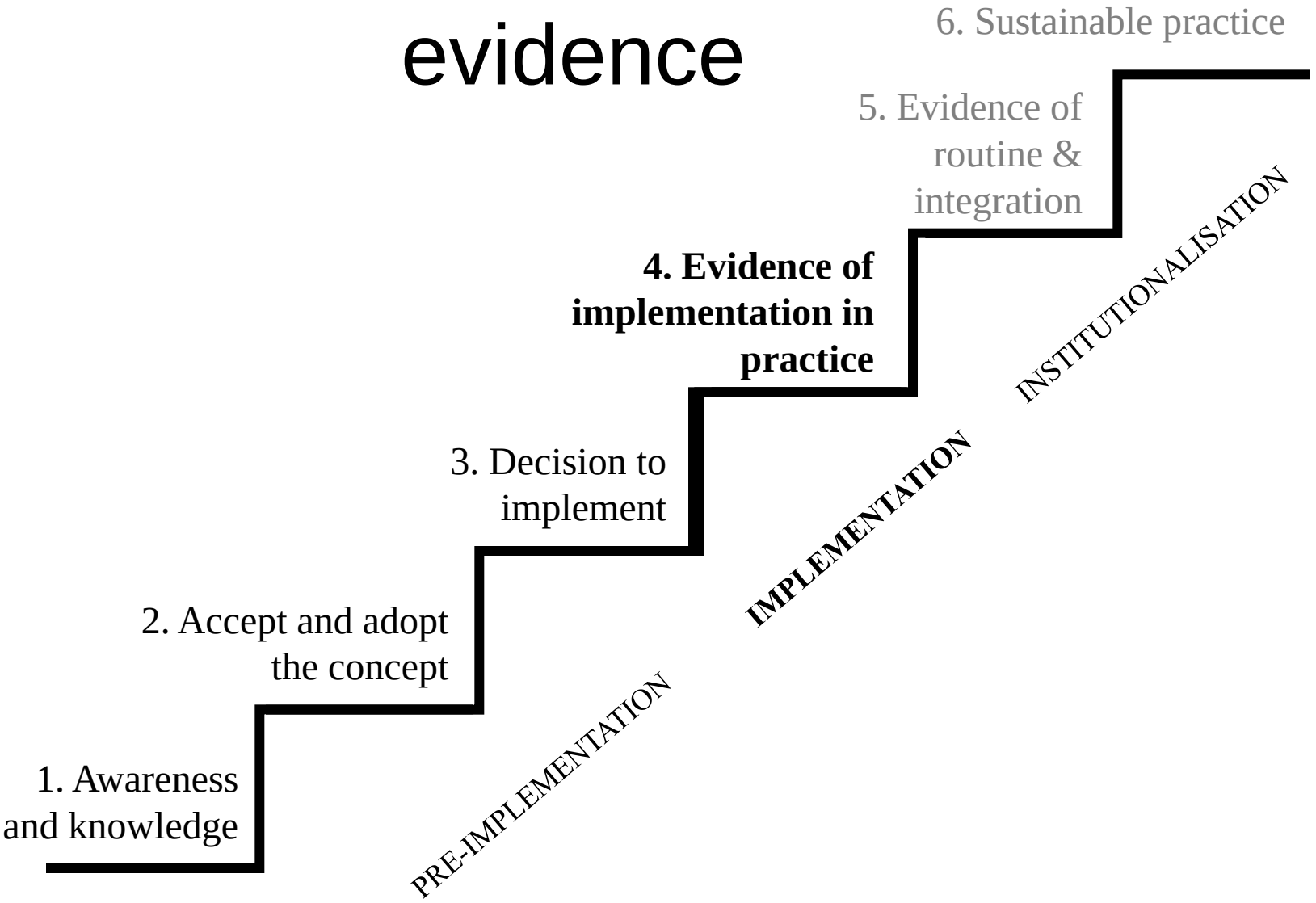


Decision

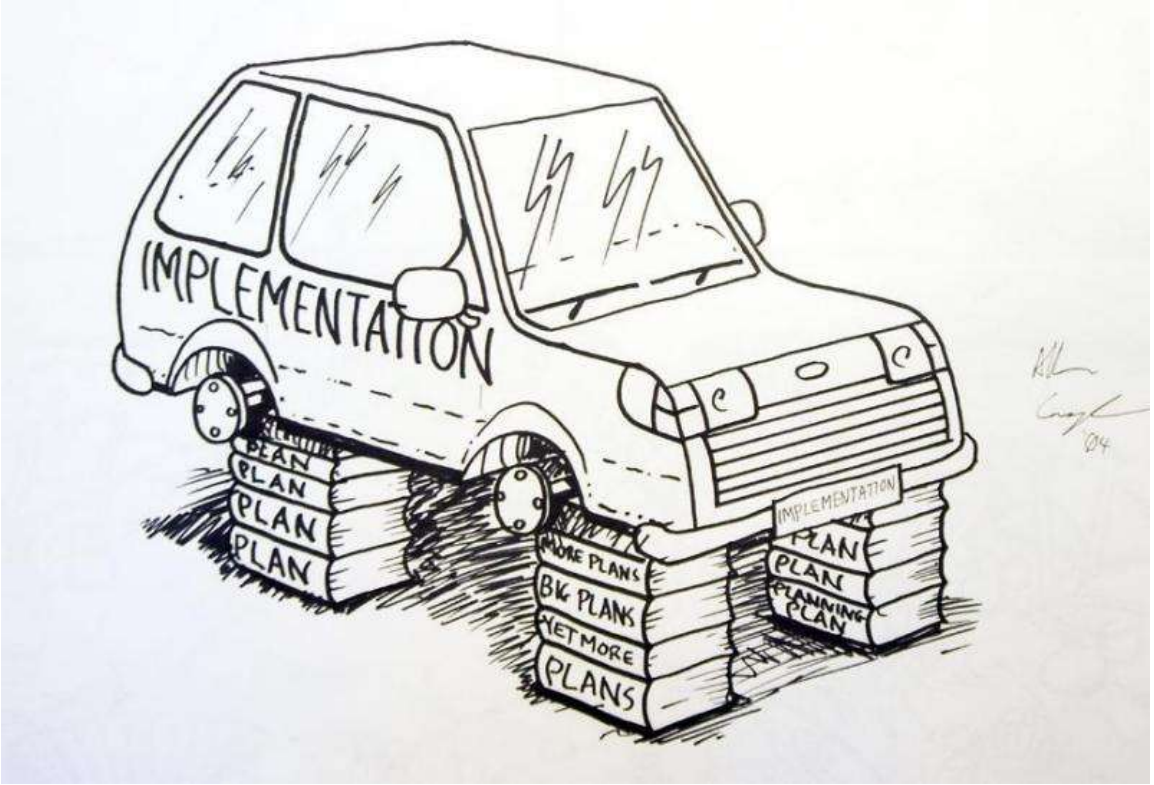
- Decision makers
  - Interests may differ
  - Complexity of change required determines feasibility



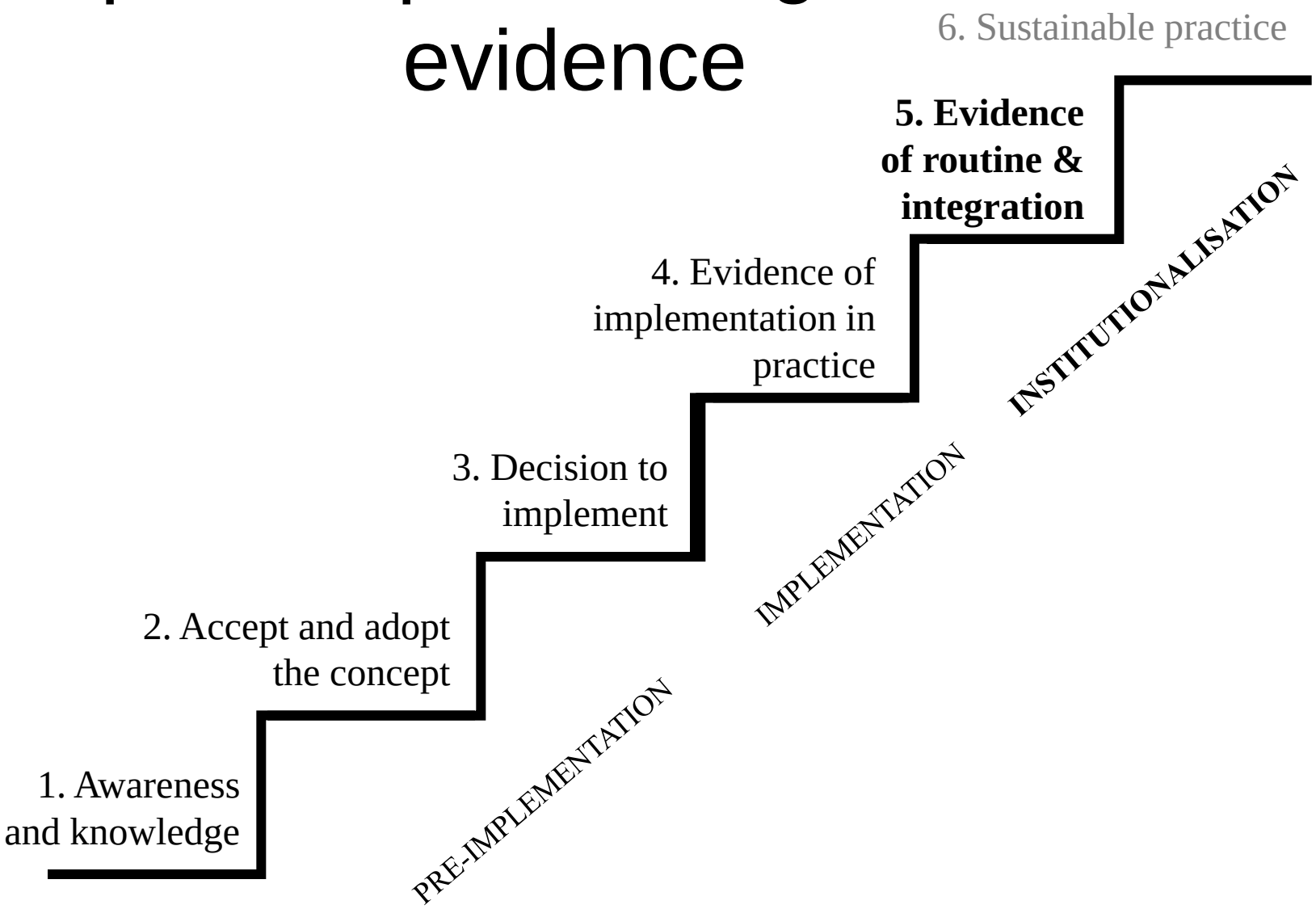
Steps in implementing research evidence



Implementation



Steps in implementing research evidence

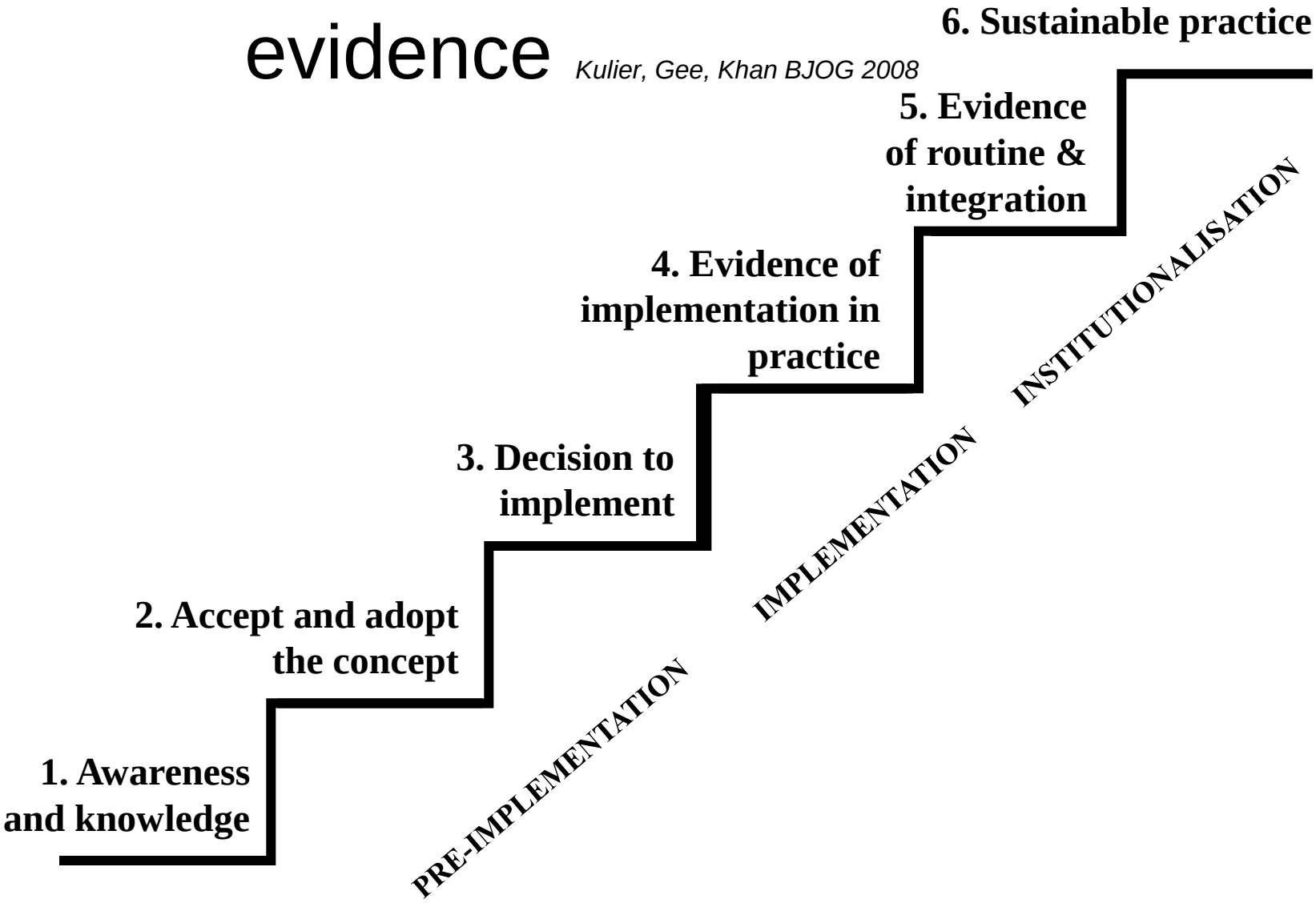


Continuation

"We can't give you blood transfusion Mr Dodds, your blood type has been discontinued."

Steps in implementing research evidence

Kulier, Gee, Khan BJOG 2008



Key issues in bringing about change

- Readiness of the environment
- Characteristics and clarity of the message embedded in the research evidence
- Pre-implementation identification of possible barriers
- Identification of people's concerns and interests
- Use of appropriate strategies

» *Kulier, Gee, Khan BJOG 2008*

Postgraduate training in EBM

- Adult learning principles
- Hierarchy of teaching techniques

Andragogy

- Adult learning principles
- Autonomous and self directed
- Goal oriented and purpose learning
- Self-initiated learning

- Transformation of the role of the teacher to a facilitator

» *Knowles 1984*

Learning in practice

What is the evidence that postgraduate teaching in evidence based medicine changes anything? A systematic review

Arri Coomarasamy, Khalid S Khan

Abstract

Objective To evaluate the effects of standalone versus clinically integrated teaching in evidence based medicine on various outcomes in postgraduates.

Design Systematic review of randomised and non-randomised controlled trials and before and after comparison studies.

Data sources Medline, Embase, ERIC, Cochrane Library, DARE, HTA database, Best Evidence, BEME, and SCI.

Study selection 23 studies: four randomised trials, seven non-randomised controlled studies, and 12 before and after comparison studies. 18 studies (including two randomised trials) evaluated a standalone teaching method, and five studies (including two randomised trials) evaluated a clinically integrated teaching method.

Best Evidence Medical Education (BEME), and Science Citation Index (SCI) using the following search terms and their word variants: "evidence", "critical", "appraisal" or "journal club" combined with "AND" to "teach$", "learn$", "instruct$", or "education". We also searched reference lists of known systematic reviews.[1–4] The final electronic search was conducted in April 2004.

We included studies that evaluated the effects of postgraduate EBM or critical appraisal teaching compared with a control group or baseline before teaching, using a measure of participants' learning achievements or patients' health gains as outcomes. Learning achievement was assessed separately for knowledge, critical appraisal skills, attitudes, and behaviour.

Knowledge relates to issues such as remembering materials as well as grasping the meaning, for example, defining and

Standalone versus clinically integrated teaching

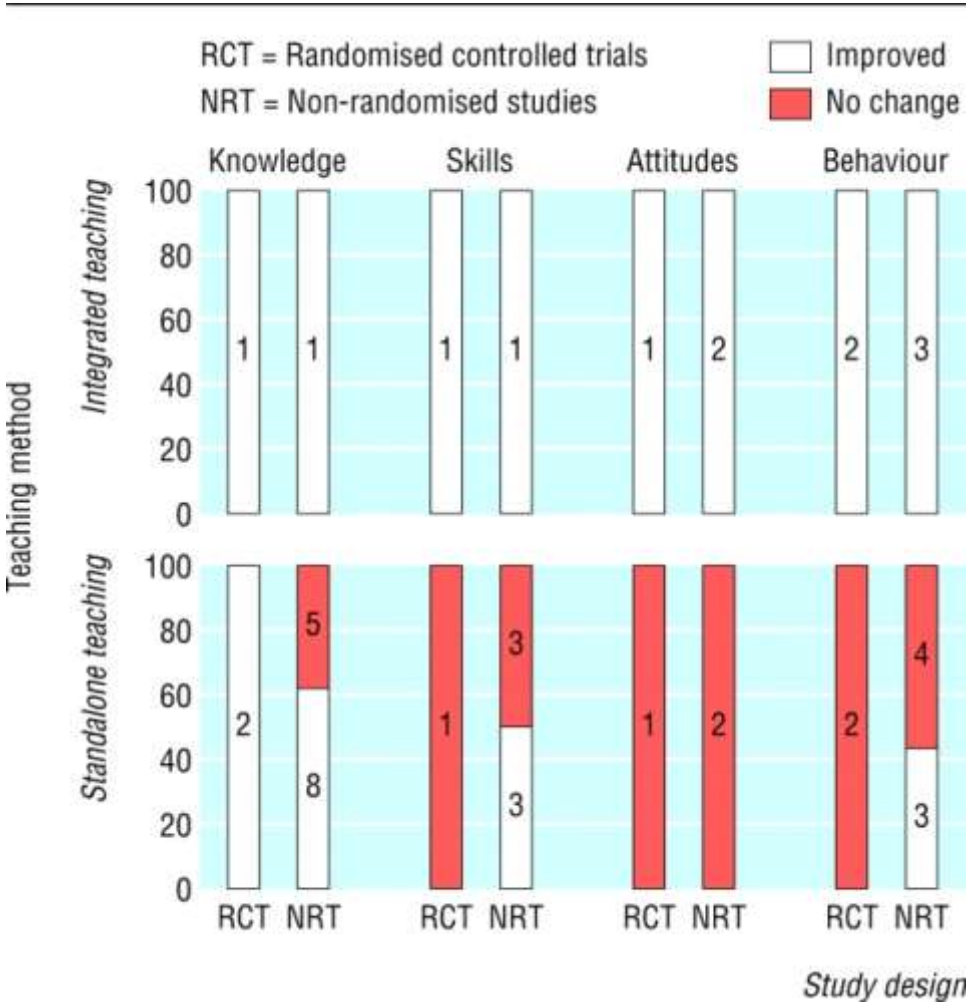
23 studies

RCT, NRT, before-after

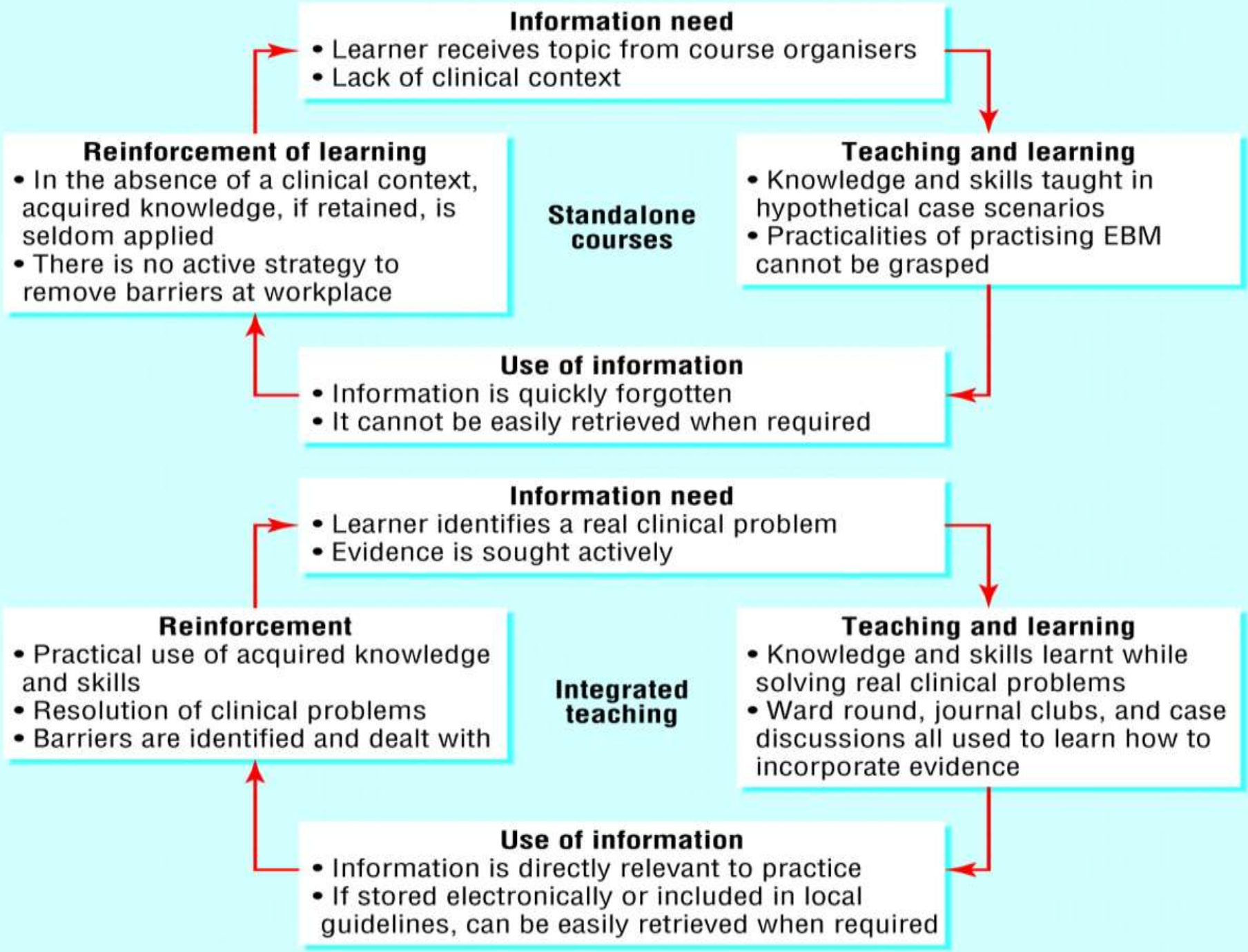
Outcomes:

- knowledge,
- critical appraisal skills,
- attitudes/behaviour

Coomarasamy 2004



Coomarasamy, A. et al. BMJ 2004;329:1017


Information need
• Learner receives topic from course organisers
• Lack of clinical context
Reinforcement of learning
• In the absence of a clinical context, acquired knowledge, if retained, is seldom applied
• There is no active strategy to remove barriers at workplace
Standalone courses
Teaching and learning
• Knowledge and skills taught in hypothetical case scenarios
• Practicalities of practising EBM cannot be grasped
Use of information
• Information is quickly forgotten
• It cannot be easily retrieved when required
Information need
• Learner identifies a real clinical problem
• Evidence is sought actively
Reinforcement
• Practical use of acquired knowledge and skills
• Resolution of clinical problems
• Barriers are identified and dealt with
Integrated teaching
Teaching and learning
• Knowledge and skills learnt while solving real clinical problems
• Ward round, journal clubs, and case discussions all used to learn how to incorporate evidence
Use of information
• Information is directly relevant to practice
• If stored electronically or included in local guidelines, can be easily retrieved when required

E-learning

- Allows for independence
- Repeat sessions
- Self assessment and feedback
- Immediate link to relevant websites

- Better than equivalent face-to-face lecture

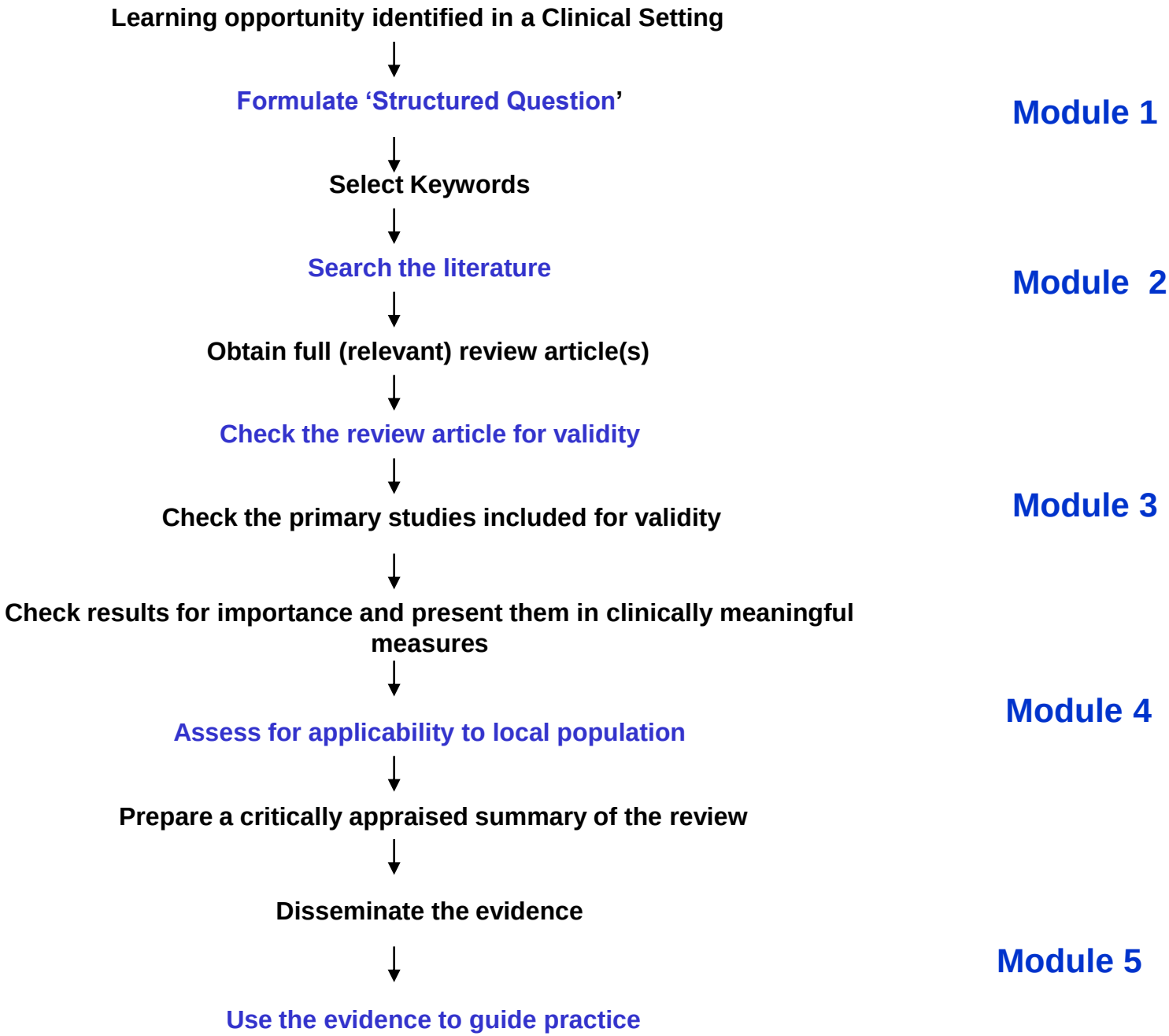
» *Davis 2008*

Clinically integrated EBM-teaching for postgraduates

- Based on European Union *Leonardo da Vinci* project
- Pilot Trial in 6 centres in Europe (08/2007-12/2007)
- Randomised:
  - Clinically integrated course

  vs
  - Traditional lecture based-course

» *Coppus 2007, Kulier 2008*


Learning opportunity identified in a Clinical Setting
Formulate 'Structured Question'
Module 1
Select Keywords
Search the literature
Module 2
Obtain full (relevant) review article(s)
Check the review article for validity
Check the primary studies included for validity
Module 3
Check results for importance and present them in clinically meaningful measures
Assess for applicability to local population
Module 4
Prepare a critically appraised summary of the review
Disseminate the evidence
Module 5
Use the evidence to guide practice

Outcome assessments

- Knowledge gain
  - Multiple choice questions
- Attitude towards EBM
  - Questionnaire

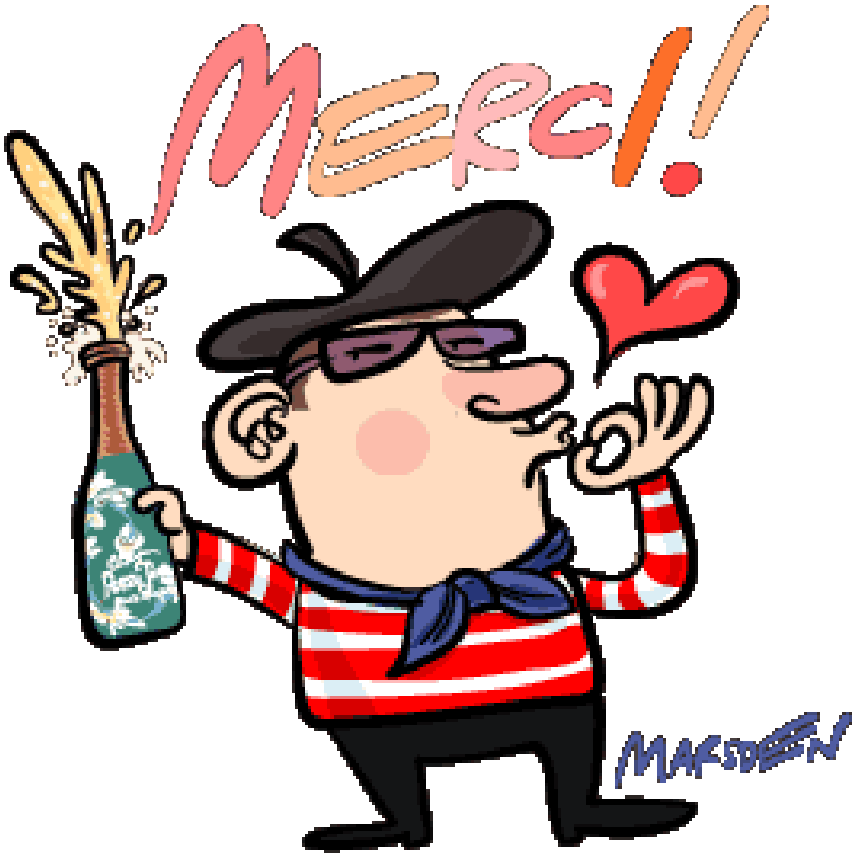
Discussion

- High baseline knowledge, modest sample size
- Adaptable to different specialities
- Tendency of better performance in the intervention group
- Economic benefits
- Incorporation of **on-the-job training** and **just-in-time learning**

WHO RHL-EBM Clinically Integrated course

- Centro Rosarino de Estudios Perinatales, Argentina
- University of Campinas, Brazil
- University Hospital Kinshasa, DRC
- All India Institute of Medical Sciences, India
- University of the Philippines, Philippines
- University of Pretoria, South Africa
- Khon Kaen University, Thailand

- GFMER, Switzerland
- Birmingham University, UK
- WHO/RHR, Switzerland


Merci!
MARSDEN