EBHC Teaching in Europe

UK West Midlands experience

Julie Hadley
Khalid Khan

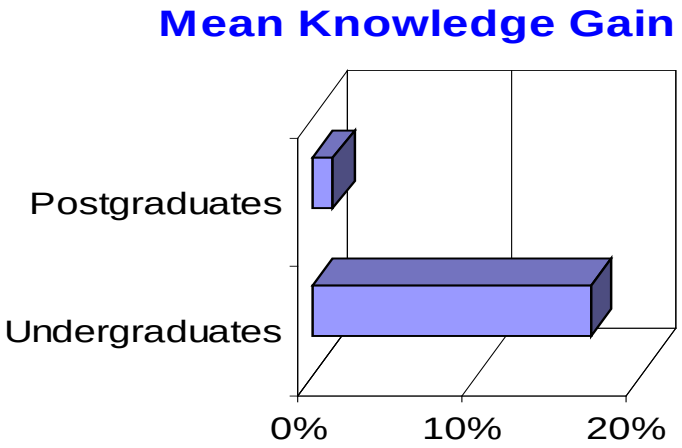
The University of Birmingham
Birmingham Women's Hospital

UK West Midlands EBHC teaching experience

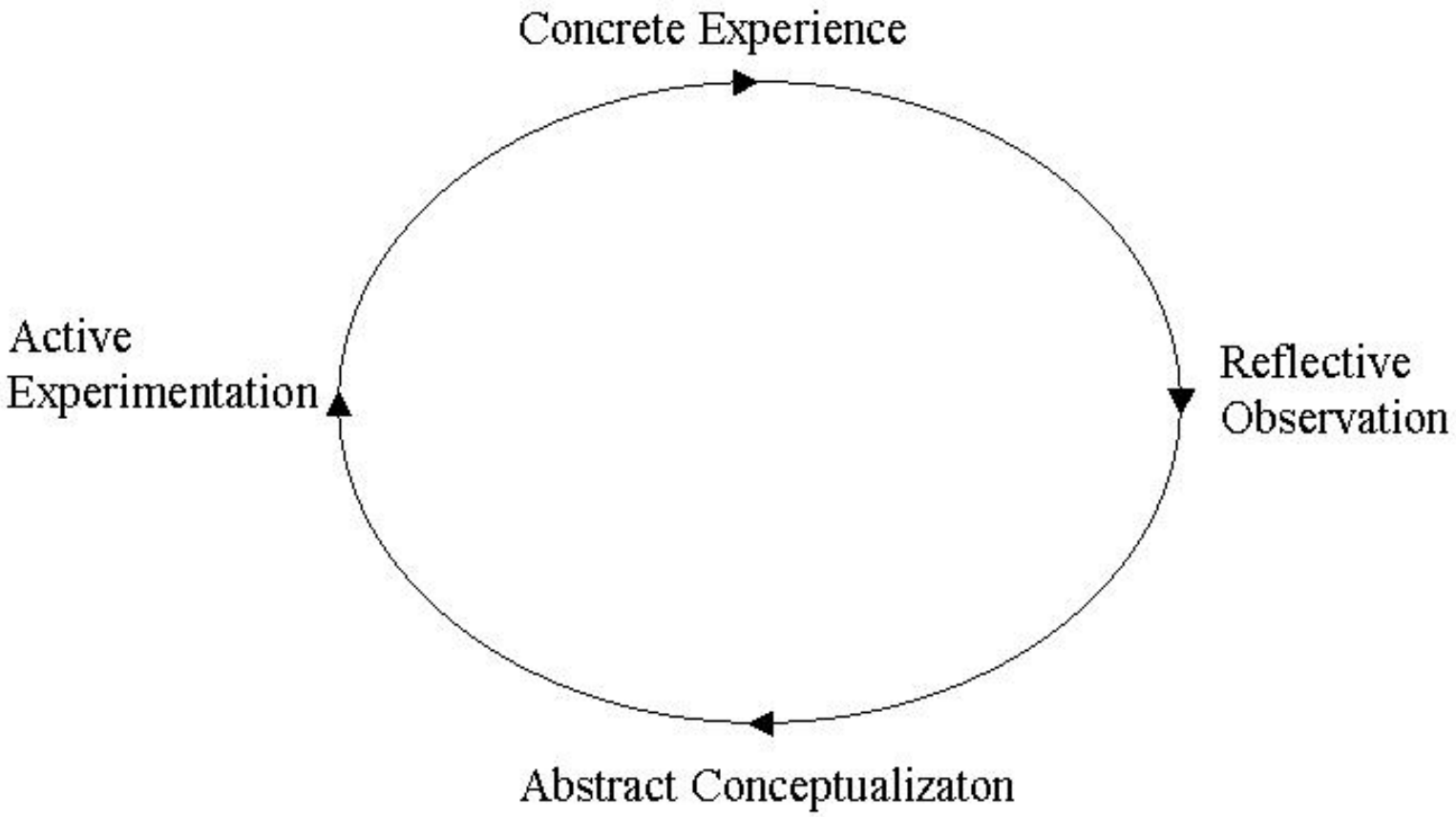
- Background
- EU Leonardo da Vinci project

Effectiveness of EBHC Teaching

- Norman and Shannon. *CMAJ* 1998;158:177.
- Postgraduate *vs* undergraduate EBM teaching
- Systematic review of 10 studies (1966 - 1995)
  - 4 studies relating to postgraduates
  - 6 studies relating to undergraduates



Adult Learning Theory



What are we doing?

- Research in EBM teaching
- Journal Club
- Evidence based ward round
- Teaching the teachers to teach EBM
- Masterclass
- E-learning in EBM
- EU Learning and Skills Council project
- One-day EBM Workshops (Deanery)
- EU EBM Unity - Leonardo da Vinci

Postgraduate obstetrics and gynaecology trainees' views and understanding of evidence-based medicine

A systematic review of postgraduate teaching in evidence-based medicine and critical appraisal

Development and validation of a questionnaire to evaluate the effectiveness of evidence-based practice teaching

Critical appraisal workshops to promote evidence-based healthcare

A new approach to teaching and learning in journal club

Incorporating the views of obstetric clinicians in implementing evidence-supported labour and delivery suite ward rounds: a case study

Critical appraisal in clinical practice: sometimes irrelevant, occasionally invalid

Assessments in evidence-based medicine workshops: loose connection between perception of knowledge and its objective assessment

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

Arri Coomarasamy, Khalid S Khan

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.

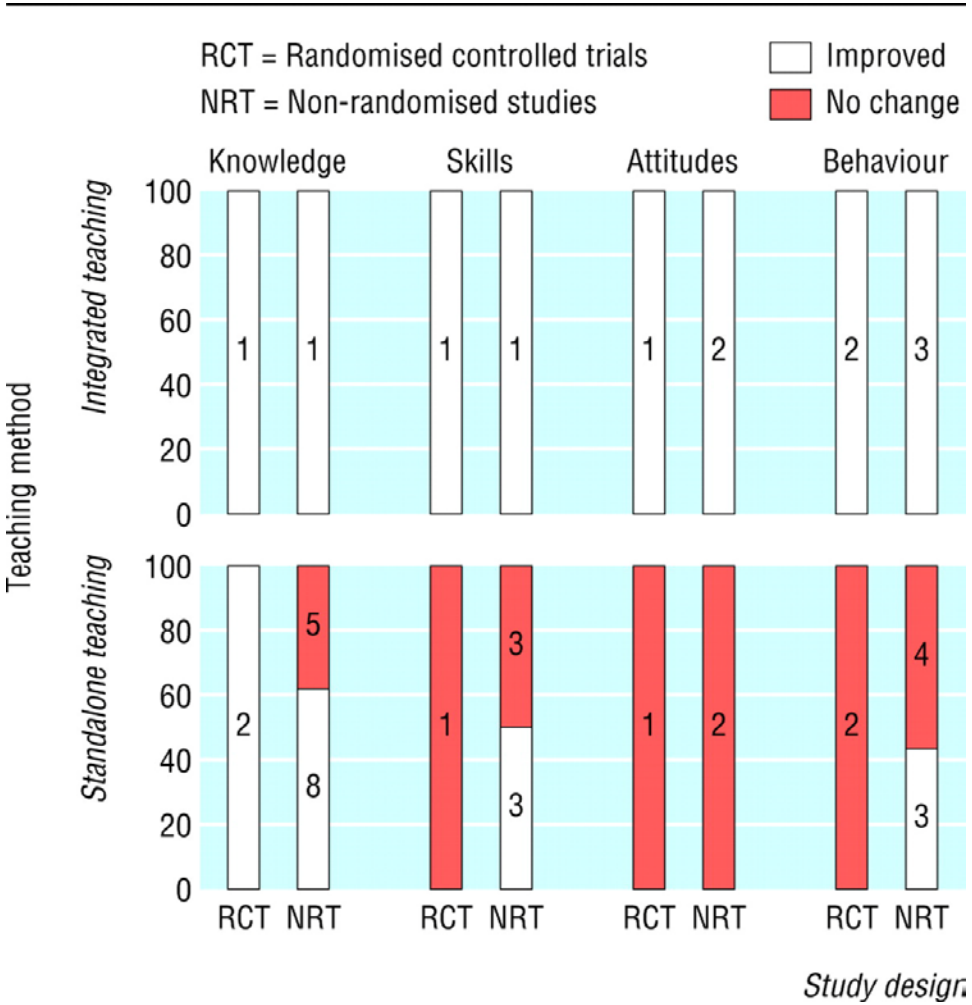
Data sources Medline, Embase, ERIC, Cochrane Library, DARE, HTA database, Best Evidence, BEME, and SCI.

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



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

Formal teaching: does knowledge really improve?

Correctness of Knowledge	**Correct**	Incorrect
Level of Confidence	**Sure**	**Unsure**	Sure
Usability of Knowledge	**Useable**	**Unusable**	Useable
Level of Decision Making	**Well informed**	**Uninformed (ignorance)**	Misinformed

Formal teaching: does knowledge really improve?

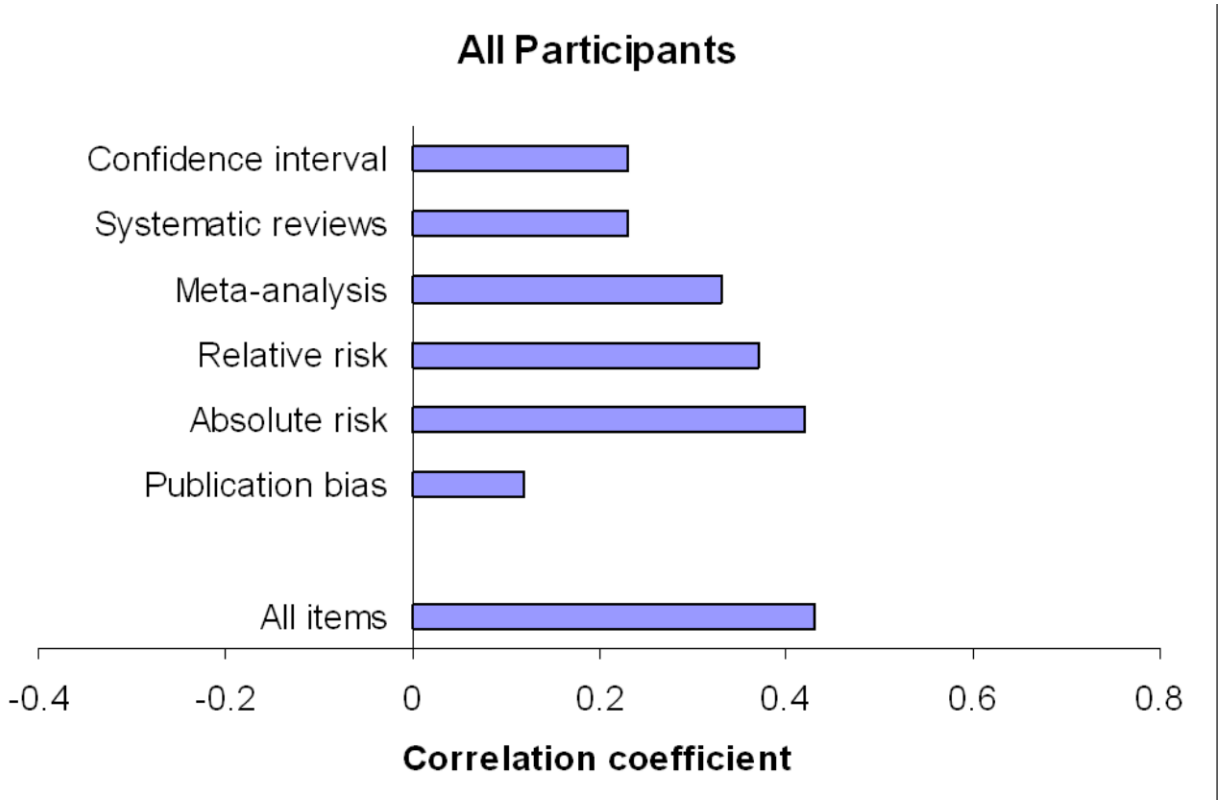
Subjective and objective assessment of knowledge

Subjective assessment: Participants were asked to circle the number that most closely fitting their understanding of an term on a 1 – 5 rating scale, where 1 referred to "Unaware of the term" and 5 referred to "Understand it and could define it"

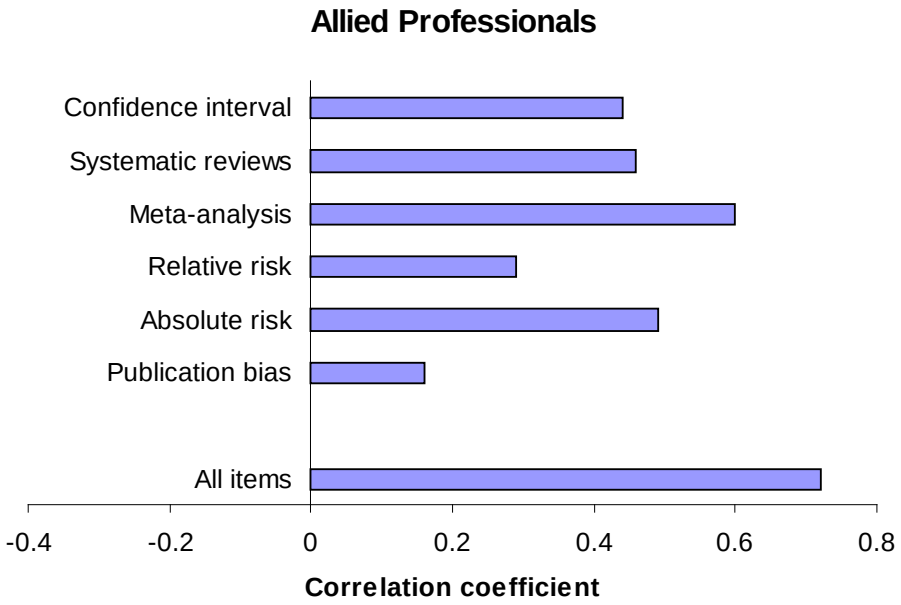
Objective assessment: For the terms subjectively assessed, participants were asked to circle "True", "False", or "Don't Know" about statements such as "Any difference in treatment outcomes between patients receiving the new and the old treatments can be attributed to the new treatment"

Taylor *et al*. *Med Educ* 2001;35(6):544-547.

Formal teaching: does knowledge really improve?

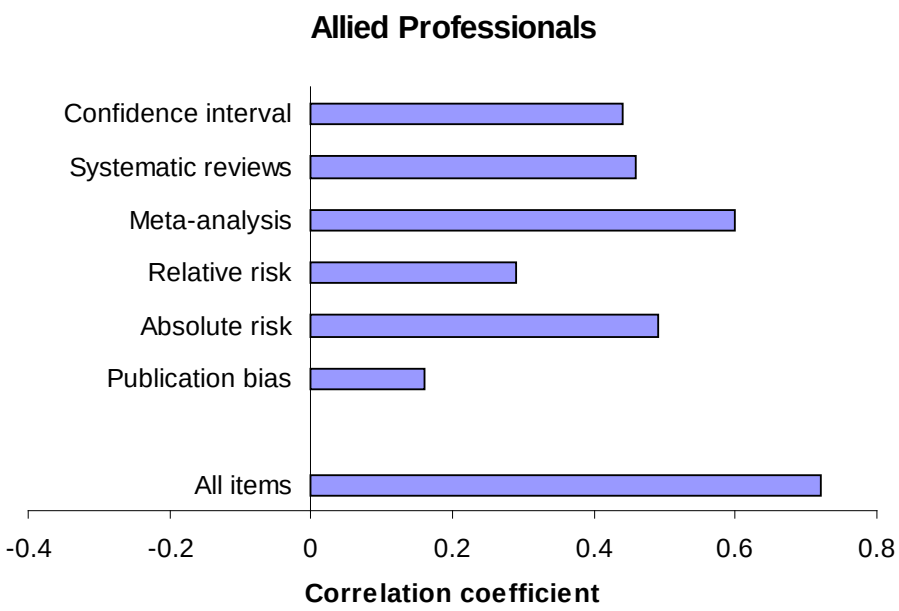


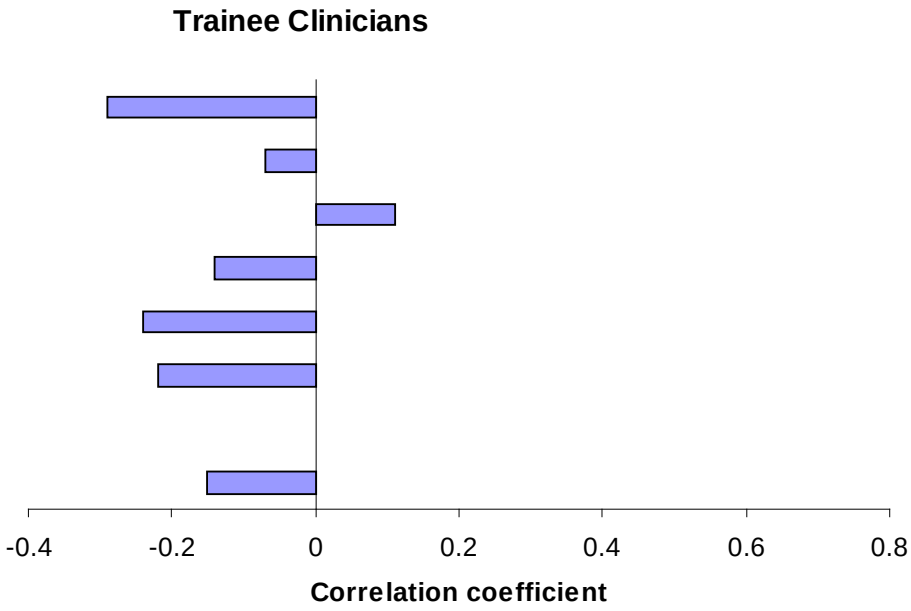
Formal teaching: does knowledge really improve?



Khan *et al*. *Med Teach* 2001; 23(1):92-94.

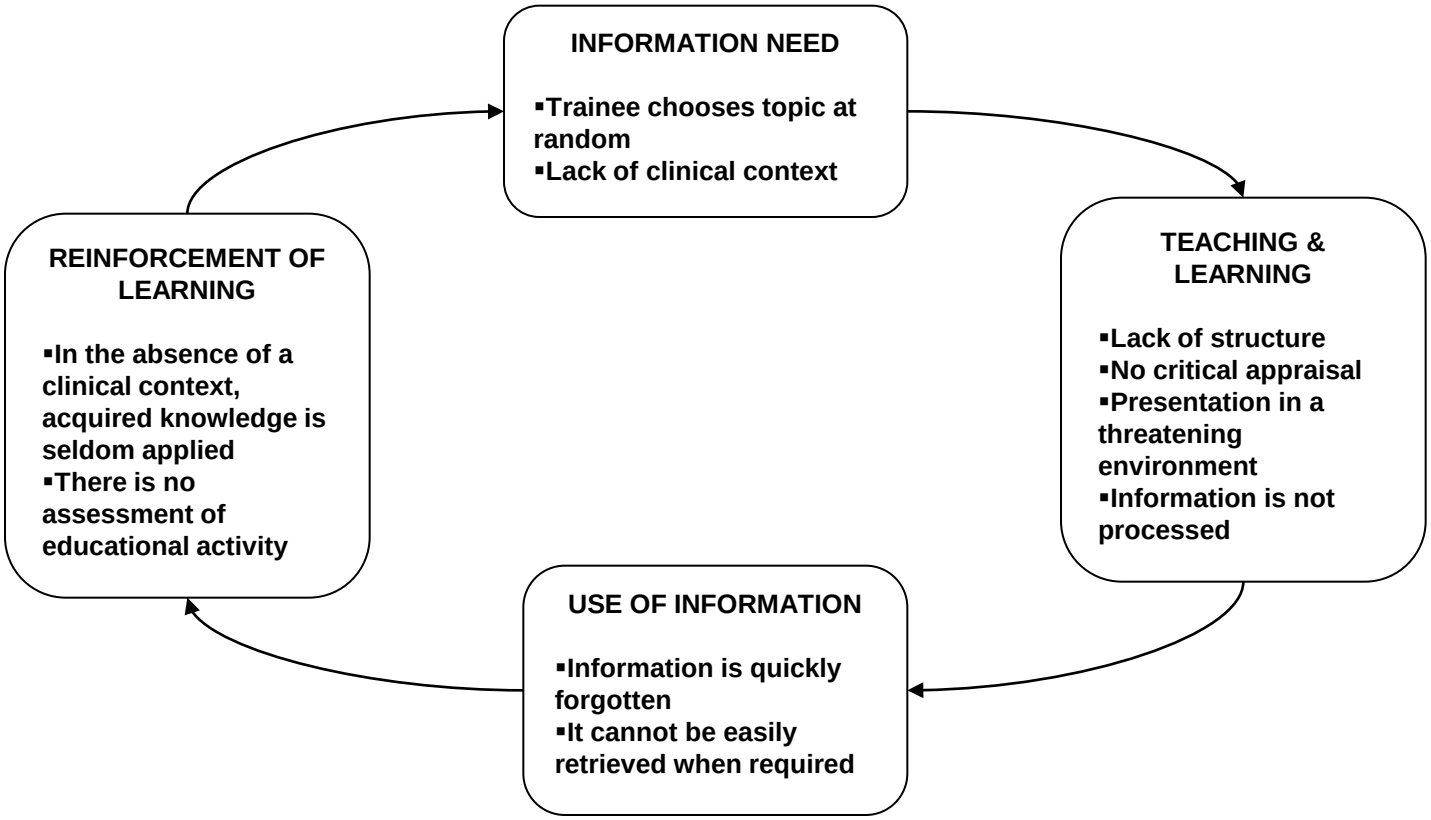
Formal teaching: does knowledge really improve?



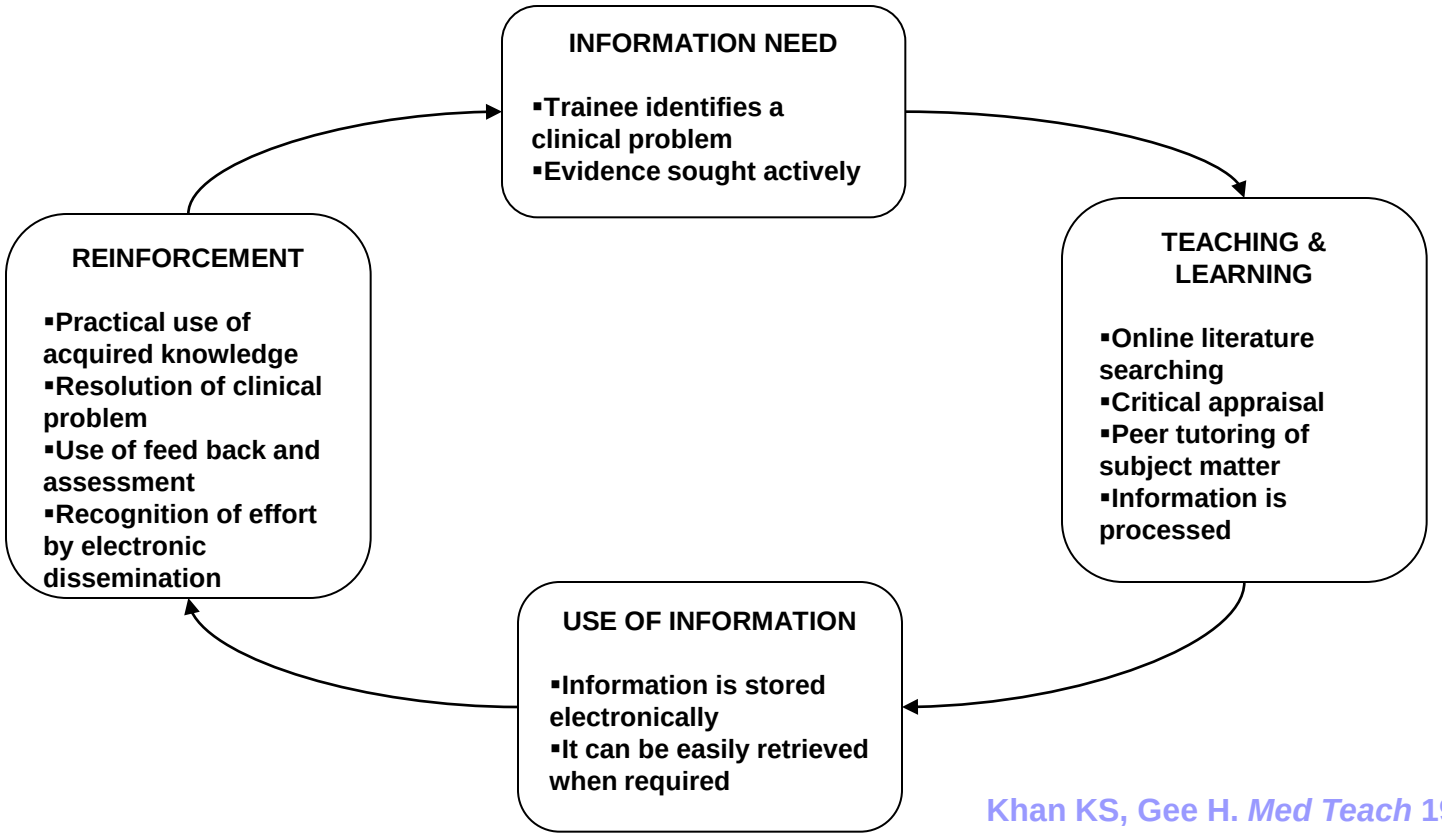


Khan *et al*. *Med Teach* 2001; 23(1):92-94.

Traditional Journal Club



EBM Journal Club



Khan KS, Gee H. *Med Teach* 1999;21:289-293

Education Resource Centre

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- Contacts
- Rooms
- Hospital Education Committee
- Postgraduate / Medical Education
- Evidence Based Medicine and Education
  - **Journal Club**
    - Programme
    - Cats
    - Disclaimer
- Courses

Journal Club

In order to develop the capacity to adapt to a rapidly advancing medical information base, healthcare providers need to equip themselves with skills in acquisition, appraisal and application of new knowledge.

The Journal Club at the Birmingham Women's Hospital provides a forum where these skills can be fostered. The format of our journal club has a careful selection of educational experiences to enhance deep learning of these skills. The journal club is conducted in the context of clinical care problems that require use of information from the medical literature. These problems are converted into focussed, answerable clinical questions.

Based on the clinical question, systematic literature searches are conducted and the identified articles are appraised using structured methodological guidelines. Critical appraisal is performed using computer software that allows electronic storage and retrieval. This electronic summary is called a *critically appraised topic* or CAT.

Journal Club Rota

Rota

This page was last modified on: Tue Mar 29 2005

Birmingham Women's Health Care NHS Trust, Metchley Park Road, Edgbaston, Birmingham, B15 2TG
Tel: (0121) 472 1377

The Journal Club Programme

Aim

To familiarise postgraduate trainees with clinical use of evidence from the medical literature.

Objectives

To prepare trainees to identify, appraise and present in turn published articles relating to patient problems seen in day-to-day clinical practice.

Timetable

Weekly lunch time meetings lasting 1 hour every Monday except on public holidays in the Education Resource Centre.

Learning outcomes

At the end of journal club session, the presenter given a clinical question should be comfortable with:

- Framing clinical questions in an answerable form.
- Conducting a simple search for an electronic bibliographic database to identify relevant articles.
- Critical appraisal of the article for validity, significance of results and clinical applicability.
- Recording the above information in an electronic form using computer software.



Birmingham Women's Health Care NHS
NHS Trust

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NHS nhs.uk

Index of CATs

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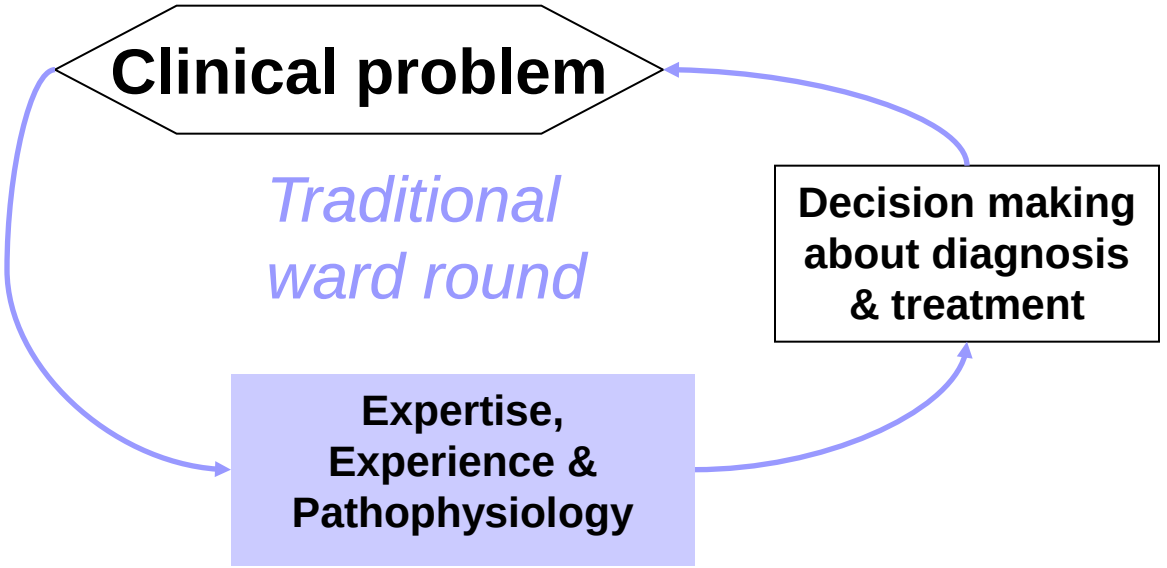
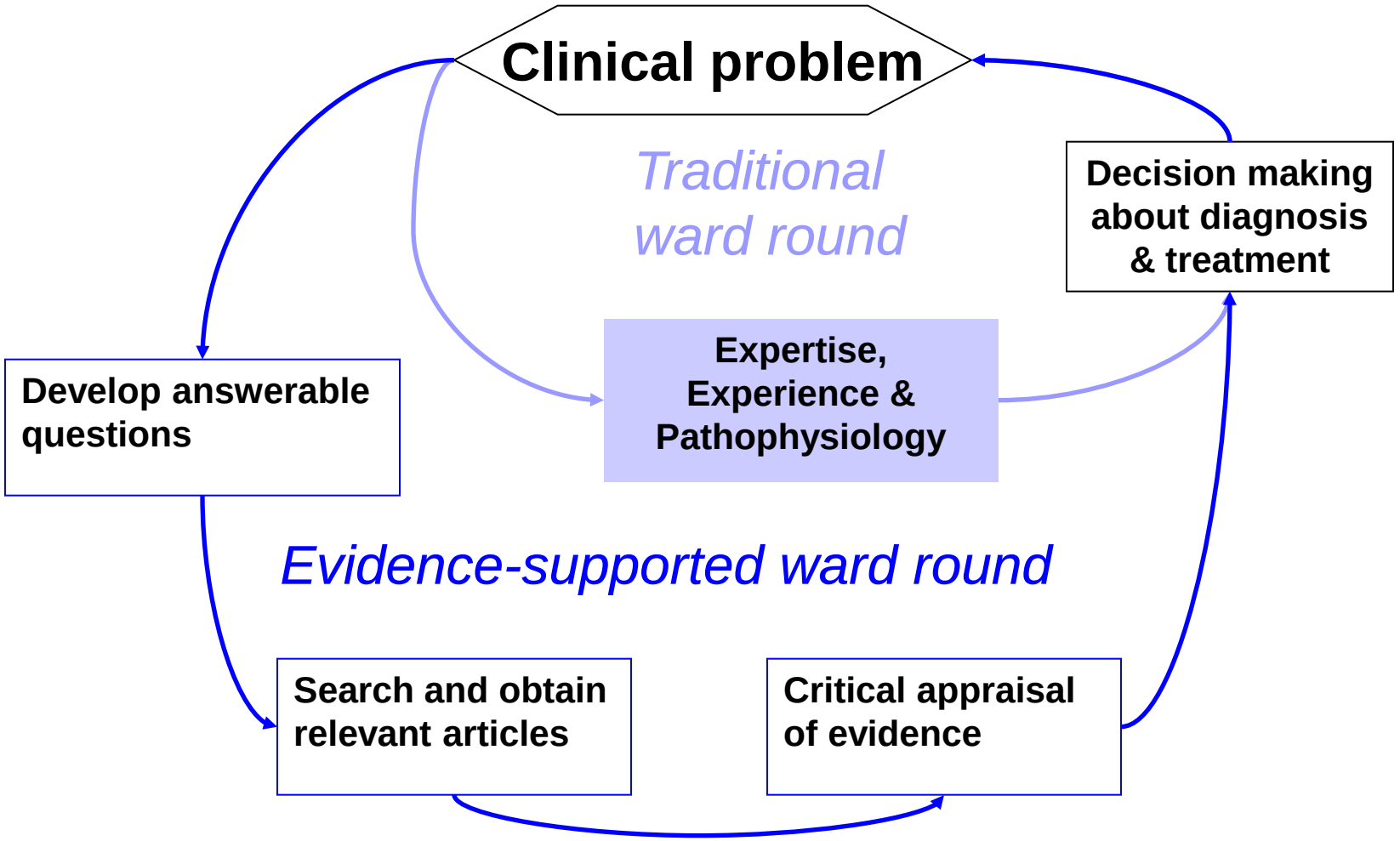
Please read our Disclaimer
Last Updated 08 December 2004

- Expectant management vs. labour induction for suspected fetal macrosomia.
  Based on data from observational studies, labour induction for suspected fetal macrosomia results in an increased caesarean delivery rate without improving perinatal outcomes. However RCT have not confirmed these.
- Traditional approximation or overlap repair of 3rd/4th degree tears?
  The newer overlap technique advocated for primary repair of anal sphincter damage postpartum does not confer any short term symptomatic benefit compared to primary approximation.
- TBEA vs. TCRE at 24 months follow up
  In the treatment of women with DUB, satisfaction outcomes of TBEA and TCRA are comparable.
- TBEA vs. TCRE at 12 months follow up
  In the treatment of women with DUB, satisfaction outcomes of TBEA and TCRA are comparable.
- Shirodkar or McDonald suture for cervical insufficiency?
  No conclusion regarding the best technique for emergency cerclage (Shirodkar vs. McDonald suture)t in the clinical or ultrasononic presence of cervical insufficiency (Shirodkar vs. Mcdonald suture) can be made. (Note also that evidence for effectiveness of cervical cerclage vs. no cervical cerclage lacking)
- Salinie infusion sonography in the diagnosis of uterine polyps and fibroids
  Saline infusion sonography has moderate accuracy in diagnosing (detecting and excluding) uterine cavity abnormalities (fibroids and polyps). However, it has higher accuracy in the diagnosis of fibroids.
- Placental edge to internal os distance on TV USS: At what distance is vaginal delivery likely?
  Limited inferences to aid clinical practice can be derived from this paper. It suggests that trial of vaginal delivery should be considered if the placental edge on TV USS is greater than 2cm from the internal cervical os as approximately 60% of women will achieve a successful vaginal delivery. However, data is lacking on other important outcomes. namely maternal and fetal wellbeing with such a policy compared to EL LSCS. Further research needed. As less than 10% of women will deliver vaginally with the placenta <2cm from the os, routine EL LSCS should be performed.
- Microwave endometrial ablation: General or local anaesthesia??
  The majority of women offered microwave endometrial ablation (MEA) under local anaesthetic will accept it (69%). Although the LA procedure is highly acceptable (87% and 75% prepared to have LA cf GA again) it is more acceptable under GA (97%, NNT 14). Approximately 12% of those having a GA MEA would change their mind and have an LA MEA 'next time' (hypothetical) Treatment under LA offers no additional safety or immediate and short-term post-operative recovery benefits. MEA under

Ward round

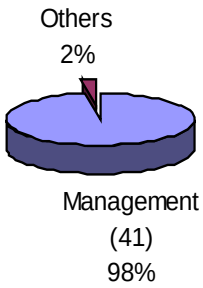

Clinical problem
Traditional ward round
Decision making about diagnosis & treatment
Expertise, Experience & Pathophysiology

Ward round

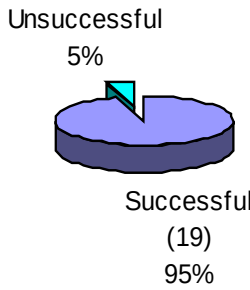

Clinical problem
Traditional ward round
Decision making about diagnosis & treatment
Expertise, Experience & Pathophysiology
Develop answerable questions
Evidence-supported ward round
Search and obtain relevant articles
Critical appraisal of evidence

Evidence-based labour ward round

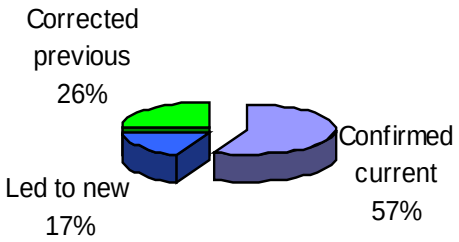
Questions generated (n=42)



Acquisition of evidence (n=20)



Effect on clinical management



UK West Midlands EBHC teaching experience

- Background
- EU Leonardo da Vinci project

Upskills Project

- Project funded by EU Social Fund - The Learning and Skills Council
- Duration: 27 months
- Funding: £529,600.00
- 209 employees - one-day EBM introductory workshop
- 69 employees - Website ‘Step-up’ course (e-learning)

The Education Resource Centre
Birmingham Womens Hospital
Metchley Park Road
Birmingham
B15 2TG

Telephone: 0121 623 6947

Welcome to Upskills.co.uk

Evidence Based Medicine Courses

Please select your sector :

>> Allied Health Practitioners
(e.g. Dentists, Osteopaths)

>> Complementary and Alternative Healthcare Professionals
(e.g. Homeopaths)

>> Medical Technology Companies
(e.g. Manufacturers, Drug Company reps)

West Midlands Deanery

- Region with over 1000 trainee doctors
- Duration: 24 months.
- Funding: £90,000
- 346 Trainees on one-day introductory workshop
- 74 Tutors on Teaching EBM Teachers workshop

Leonardo da Vinci Project

- Project funded by Leonardo da Vinci national agency
- Duration: 24 months
- Funding: 396,434 euros
- Commenced: November 2005

Aims

- To develop a European qualification in EBM
- To improve the relevance and quality of medical training in Europe
- To enable doctors to easily integrate into the healthcare systems of other member states
- To improve mobility and effectiveness of doctors throughout Europe
- To improve care of European patients

Partners

- Seven partners:
  - The University Of Birmingham/ Birmingham Women's Hospital
  - Aquamed – Germany/Austria
  - Universita Callolica del Sacro Cuore - Italy
  - Centre Reproductive Medicie - Amsterdam
  - CASPi – University of Birmingham
  - CASP Poland
  - CASP Spain
  - CASP Hungary
  - Switzerland
- Steering Committee – Chair: Paul Glasziou

Europe


Greenland (DENMARK)
Jan Mayen (NORWAY)
Serbia and Montenegro have asserted the formation of a joint independent state, but this entity has not been formally recognized as a state by the United States.
F.Y.R.O.M. - The Former Yugoslav Republic of Macedonia
Barents Sea
Greenland Sea
Norwegian Sea
Hammerfest
Murmansk
Kiruna
Narvik
Reykjavik
ICELAND
Arctic Circle
White Sea
Arkhangel'sk
NORWAY
Oulu
Umeå
FINLAND
Lake Onega
Lake Ladoga
Gulf of Bothnia
Tórshavn
Faroe Islands (DENMARK)
Trondheim
SWEDEN
Tampere
Helsinki
St. Petersburg
Gulf of Finland
Shetland Islands
Gävle
Bergen
Oslo
Stockholm
Åland Islands
Tallinn
ESTONIA
RUSSIA
Rockall (U.K.)
Orkney Islands
Hebrides
Skagerrak
Göteborg
Gotland
Rīga
LATVIA
North Atlantic Ocean
Aberdeen
North Sea
Baltic Sea
Smolensk
Edinburgh
Belfast
UNITED
DENMARK
Oland
LITHUANIA
Newcastle
Copenhagen
Bornholm
Kaliningrad
RUSSIA
Vilnius
Minsk
BELARUS
Isle of Man (U.K.)
Dublin
Irish Sea
IRELAND
Liverpool
Rostock
Gdańsk
Hamburg
Berlin
Poznań
Warsaw
Brest
Kiev
KINGDO
Cardiff
Amsterdam
NETHERLA
Hannover
GERMANY
Leipzig
Wrocław
London
Brussels
BELGIUM
Bonn
Kraków
UKRAINE
English Channel
Guernsey (U.K.)
Jersey (U.K.)
Le Havre
Prague
CZECH REPUBLIC
SLOVAKIA
Paris
LUX.
Luxembourg
Stuttgart
Bratislava
MOLDOVA
Chişinău
Odesa
Strasbourg
Nantes
Loire
Munich
Vienna
AUSTRIA
HUNGARY
Cluj-Napoca
FRANCE
Graz
ROMANIA
Bay of Biscay
Geneva
Bern
LIECH.
Pécs
Ljubljana
Bucharest
Constanța
Black Sea
SLOVENIA
Zagreb
Danube
Lyon
Milan
Venice
Bordeaux
Turin
Genoa
Belgrade
Varna
CROATIA
BOSNIA AND HERZEGOVINA
Sarajevo
Serbia
BULGARIA
MONACO
Florence
Sofia
Bilbao
Porto
Marseille
ITALY
Adriatic Sea
Podgorica
Istanbul
PORTUGAL
ANDORRA
SPAIN
Corsica
Rome
Montenegro
Skopje F.Y.R.O.M.
Tirana
Barcelona
Madrid
VATICAN CITY
Thessaloniki
ALB.
TURKEY
Naples
Lisbon
Valencia
Sardinia
Tyrrhenian Sea
Ioannina
Aegean Sea
Corfu
GREECE
Balearic Islands
Sevilla
Palermo
Ionian Sea
Mediterranean Sea
Peloponnisos
Rhodes
Strait of Gibraltar
Gibraltar (U.K.)
Ceuta (SPAIN)
Málaga
Algiers
Tunis
Sicily
Crete
Melilla (SPAIN)
Rabat
MOROCCO
ALGERIA
TUNISIA
MALTA
Valletta
Scale 1:19,500,000
Lambert Conformal Conic Projection, standart parallels 40°N and 56°N
300 Kilometers
300 Nautical Miles
802377 (R01083) 5-95

Objectives

- Evaluate teaching methods of EBM in each country
- Map current medical training at foundation level 2 in each country
- Develop core curriculum and adapt to each country
- Pilot and evaluate the EBM course in each country
- Accredit the course in each country
- Further grant applications for dissemination and evaluation of the courses developed

EBM Team

- Khalid Khan
  (Professor of obstetrics, gynaecology and clinical epidemiology)
- Julie Hadley
  (Project manager)

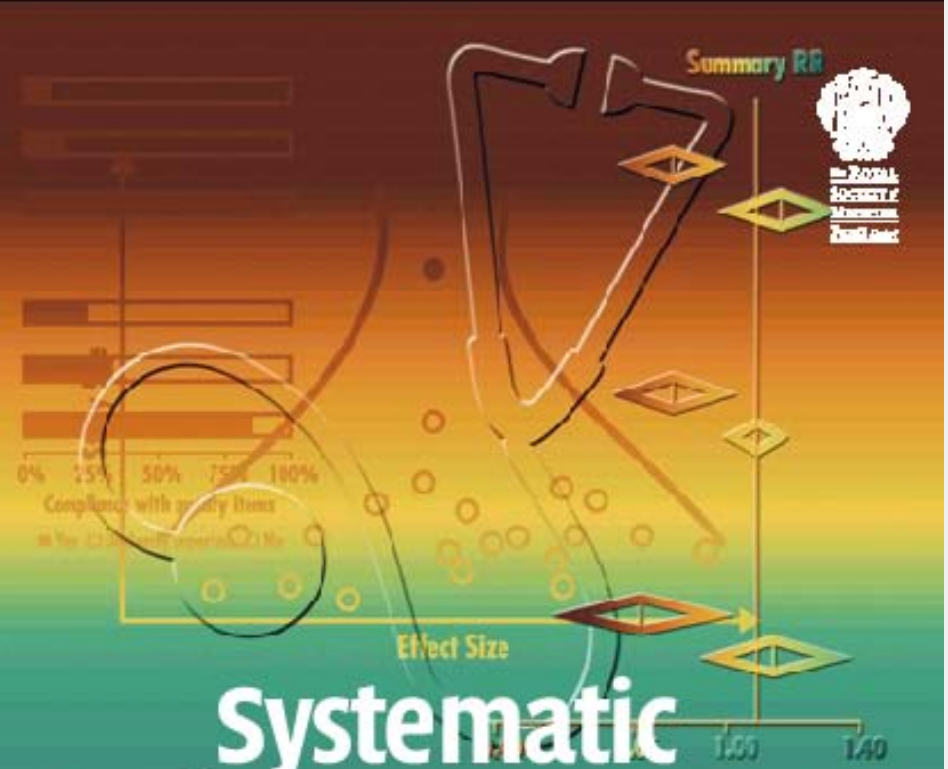
- Mary Publicover (information specialist)
- Arri Coomarasamy (SpR O&G)
- James Davis (Research fellow)
- Denise Hardy (Administrator)
- *Educational fellow (to be appointed)*

- Collaborations
- Public Health: Amanda Burls, Catherine Meads, Chris Hyde
- Deanery: David Wall, Veronica Wilkie

The University of Birmingham

Birmingham Women's Hospital

Julie Hadley
Khalid Khan



Systematic Reviews to Support Evidence-based Medicine

HOW TO REVIEW AND APPLY FINDINGS OF HEALTHCARE RESEARCH

Khalid S Khan, Regina Kunz, Jos Kleijnen & Gerd Antes

2003 BMA Medical Book Competition

Commended

Basis of medicine

Presented to

Khalid S Khan, Regina Kunz, Jos Kleijnen, Gerd Antes and RSM Press

For

Systematic Reviews to Support Evidence-based Medicine: how to review and apply findings of healthcare research

President

Secretary

BMA

Searching for evidence to inform clinical practice

Khalid S. Khan*, Aravinthan Coomarasamy

Education Resource Centre, Birmingham Women's Healthcare NHS Trust, Birmingham B15 2TG, UK

KEYWORDS
Literature search;
Evidence-based Medicine (MESH);
Information Science (MESH);
Review Literature (MESH);
Guidelines (MESH)

Summary Literature search and retrieval are essential steps in evidence-based practice. However, locating the relevant research to answer a specific clinical question can be daunting due to the volume and scattering of published literature. For clinicians, this necessitates the acquisition of basic skills to make literature searching effective and efficient. The first step is to take a hierarchic approach to searching: begin by looking for well-developed guidelines and evidence summaries; these may be found on the websites of various professional bodies. If guidelines and evidence summaries do not exist, searches for well-conducted systematic reviews are likely to give more precise and accurate answers than single studies. Such reviews may be found within databases such as the Cochrane Library or the Reproductive Health Library. If systematic reviews do not exist, a carefully planned search, with appropriate input from a clinical librarian, will need to be carried out in primary bibliographic databases such as MEDLINE and EMBASE. If all else fails, the final port of call will be contacting experts, Internet discussion forums or manufacturers. Once evidence has been obtained, following assessment of its quality, importance and relevance, it may be adopted in practice.

Critical appraisal in clinical practice: sometimes irrelevant, occasionally invalid

Aravinthan Coomarasamy MRCOG Pallavi Latthe MRCOG Spyros Papaioannou MRCOG
Mary Publicover Harry Gee FRCOG Khalid S Khan MRCOG

J R Soc Med 2001;**94**:573–577

SUMMARY

A core activity of evidence-based practice is the search for and appraisal of evidence on specific clinical issues. Clinicians vary in their competence in this process; we therefore developed a 16-item checklist for quality of content (relevance and validity) and presentation (useability, attribution, currency and contact details). This was applied to a set of 55 consecutive appraisals conducted by clinicians and posted at a web-based medical journal club site.

Questions were well formulated in 51/55 (92%) of the appraisals. However, 22% of appraisals missed the most relevant articles to answer the clinical question. Validity of articles was well appraised, with methodological information and data accurately extracted in 84% and accurate conversion to clinically meaningful summary statistics in 87%. The appraisals were presented in a useable way with appropriate and clear bottom-lines stated in 95%.

The weakest link in production of good-quality critical appraisals was identification of relevant articles. This should be a focus for evidence-based medicine and critical appraisal skills.

Medical journals and effective dissemination of health research

Aravinthan Coomarasamy,* Harry Gee,† Mary Publicover§ and Khalid S. Khan†, *Research Fellow in Evidence-based Medicine, †Consultant, and §Medical Librarian, Education Resource Centre, Birmingham Women's Hospital, Birmingham, UK

Abstract

Clinical medical journals have not been effective in meeting the information needs of practitioners and bridging the gap between clinical research and practice. The slow adoption of results of clinical research is at least partly due to the failure of clinical journals to disseminate information in a way that would motivate practitioners to change practice. Although implementation is primarily a local process, medical journals are in a unique position to advance implementation by modifying their focus and adjusting their contents. Strategies that may be useful include publication of pre-appraised evidence summaries and 'clinical bottom-lines' and giving importance to systematic reviews and large evaluative research articles as they represent higher levels of evidence and have greater potential to change practice. Clinical journals should encourage researchers to consider how and by whom the findings will be used and provide

Development and validation of a questionnaire to evaluate the effectiveness of evidence-based practice teaching

Rod Taylor,[1] *Barnaby Reeves,*[2] *Rebecca Mears,*[3] *John Keast,*[4] *Sarah Binns,*[5] *Paul Ewings*[6] *& Khalid Khan*[7]

Aim The aim of this study was to develop and validate a questionnaire to evaluate the effectiveness of evidence-based practice (EBP) teaching.

Methods The 152 questionnaires completed by health care professionals with a range of EBP experience were used in this study. Cronbach's alpha for the knowledge and attitude questions indicated a satisfactory level of internal consistency (i.e. >0·60).

Results The discriminative validity was evidenced by a statistically significant difference in the knowledge and attitude scores of 'novices' (i.e. little or no prior EBP education) compared with 'experts' (i.e. health care professionals and academics currently teaching EBP). Moderate to good (≥0·4) sensitivity index scores were observed for both knowledge and attitude scores as the result of comparing individuals before and after an EBP intervention.

Conclusions The results of this validation study indicate that the developed questionnaire is a satisfactory tool with which to evaluate the effectiveness of EBP teaching interventions.

Keywords Education, medical, *methods; educational measurement; evidence based medicine; *questionnaires, reliability and validity of results; teaching, methods.

Medical Education 2001;35:544–547

A systematic review of postgraduate teaching in evidence-based medicine and critical appraisal

ARAVINTHAN COOMARASAMY[1], ROD TAYLOR[2] & KHALID S KHAN[1]

[1]Education Resource Centre, Birmingham Women's Hospital, Birmingham, UK;
[2]Public Health & Epidemiology Department, University of Birmingham, UK

SUMMARY *The knowledge and skills needed for critical literature appraisal and evidence-based practice have not been covered in undergraduate education until recently. These educational needs are, therefore, often met through postgraduate education via courses, workshops and journal clubs. Previous reviews have generally considered postgraduates and undergraduates together. However, there is evidence that the effectiveness of educational interventions varies between postgraduates and undergraduates. In this study the authors therefore examine the effectiveness of evidence-based medicine and critical appraisal teaching at postgraduate level. A comprehensive search was conducted in MEDLINE, EMBASE, ERIC, CCTR, CDSR, DARE, HTA, Best Evidence and SCI. Seventeen studies were identified: two randomized trials, six controlled trials without randomization and nine before-and-after studies. The studies showed a significant improvement in knowledge, but not in attitude, skills or behaviour. However,*

Methods

Identification of literature

An electronic search of relevant databases and the Internet was conducted, supplemented by manual searching and contact with experts directly and through mailing lists (Table 1).

The search for relevant articles consisted of online scanning of MEDLINE, EMBASE, ERIC, Cochrane Controlled Trials Register (CCTR), Cochrane Database of Systematic Reviews (CDSR), Database of Abstracts of Reviews of Effectiveness (DARE), Health Technology Assessment Database (HTA), Best Evidence and Science Citation Index (SCI). The following search terms and their word variants were used: 'evidence', 'critical', 'appraisal', 'journal club' and

A new approach to teaching and learning in journal club

KHALID S. KHAN & HARRY GEE

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SUMMARY—*In order to develop the capacity to adapt to changing circumstances, trainee doctors need to equip themselves with skills in acquisition, appraisal and application of new knowledge. The journal club traditionally provides a forum where these skills can be fostered. A newly introduced journal club format is described, which has a careful selection of learning experiences to enhance deep learning of these skills. The journal club is placed in the context of clinical care problems that require use of information from the medical literature. These problems are converted into focused, answerable clinical questions. Based on the clinical question, systematic literature searches are conducted and the identified articles are appraised using structured methodological guidelines. Clinical problem-solving skills are acquired through use of teaching methods that are associated with learning-for-understanding.*

However, learning activities in journal club have generall remained unstructured, diminishing the educational valu of the journal club.

The recent trends in medical education are rooted in th realization that the aim of teaching is to facilitate learning In particular, educational programmes should inculcate deej learning. This is because in contrast with surface learning which circles around memorizing and reproducing (an forgetting soon after examinations), the deep approach help trainees make sense out of the subject-matter (Brown & Atkins, 1988; Gibbs, 1992). The deep approach is fostered when the process of learning builds on activation of trainees existing knowledge; construction of new knowledge ove and above what exists; and refinement of the newly acquired knowledge. To achieve this objective in the journal club a clinical context is required that motivates trainees to take ar

Aims of the presentation

- Who we are
- What we are doing
- What we have done
- What we are going to do

Objectives

- To develop one-day EBM Introductory Workshop
- To develop Teaching EBM Teachers courses for one-day introductory workshop
- To run 20 region and speciality wide Teaching EBM teachers courses and train approx 50 consultants
- To train approx 400 trainees in hospital based specialties.

Where we are

- Eight specialties incl: O&G, Paediatrics, Surgery, Medicine, Geriatrics, Anaesthetics, Psychiatric, Radiology, A&E
- 14 Teaching EBM Teachers workshops
- 16 One-day introductory workshops
- 346 Trainees on one-day introductory workshop
- 74 Tutors on Teaching EBM Teachers workshop

Objectives

- To identify the training needs of medical technology companies and non-NHS staff
- To develop and run one-day EBM introductory workshop
- To develop and run 60 hour longer EBM course (Step-up course)

Where we are

- 209 employees have undertaken training on one-day EBM introductory workshop
- 69 employees signed up to start ‘Step-up’ course
- Website developed (e-learning)
- Regional conference 30th November 2005