Impact of EBHC Mini-Course on the Attitudes, Knowledge and Skills of Female Medical Students, Saudi Arabia

Dr. Lubna A. Al-Ansary, *MSc, FRCGP*
Associate Professor,
Dept of Family and Community Medicine
College of Medicine, King Saud University,
Riyadh, Saudi Arabia

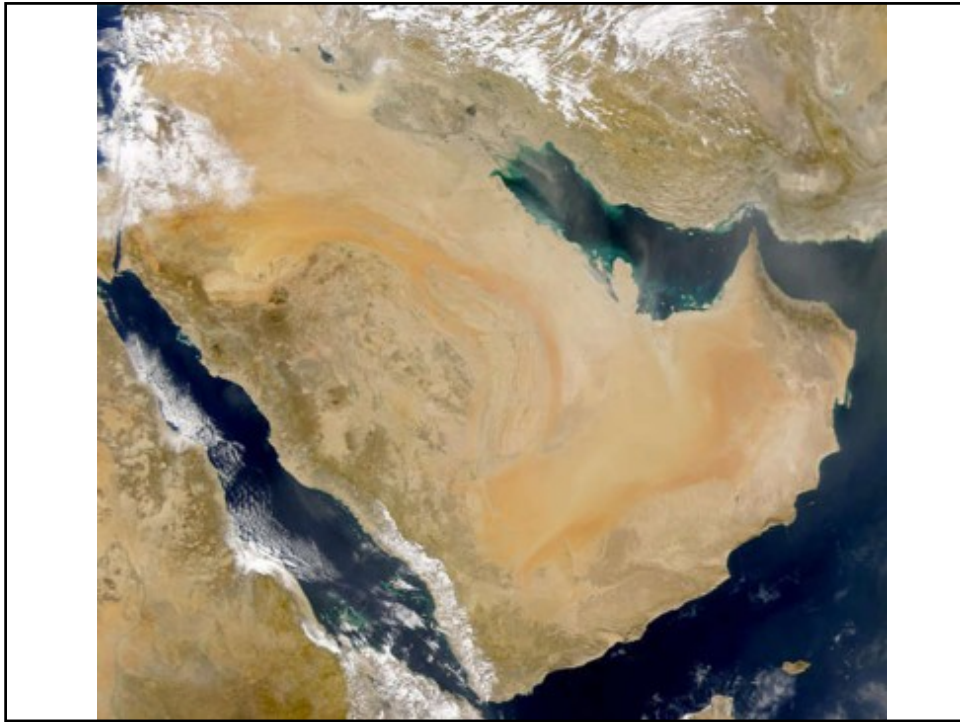
Saudi Arabia

EBHC for Undergrds/ Al-Ansary, L

1

The Holy mosque in Makka

The Holy mosque in Al-Madina…

King Saud University (KSU)

- 1st Saudi University
- Founded in 1957
- Females admission, 1961

College of Medicine, KSU

- Established in 1969
- 1st admission of females, 1974

EBHC for Undergrds/ Al-Ansary, L

4

Why must we teach EBM?

Sicily Statement on EBP

- Curricula to deliver these competencies should be grounded in the "five-step model"
- The teaching should, as far as possible, be integrated into the *clinical setting* and *routine care* so that students not only learn the principles and skills, but learn how to incorporate this into *life-long learning* and *patient care*.

Teaching EBM at the Undergraduate Level

Teaching EBM at the Undergraduate Level

- Preclinical V. early clinical
- Specialty-related V. Integrated
- Directed V. self-directed learning
- Decision support systems
- Barriers to adoption of EBM

Local Experience

Family Medicine Rotation:
4th year
6 weeks long

EBHC for Undergrds/ Al-Ansary, L

Aims:

P Fourth year female medical students
College of Medicine, King Saud University

I Family Medicine Rotation Family Medicine Rotation

EBHC Mini-Course

O Attitudes
Knowledge
Proficiency of Skills

What Students learn?

- Introduction to EBM.

Evidence Users

REAL WORLD ← | ACADEMIA THIS EXIT →
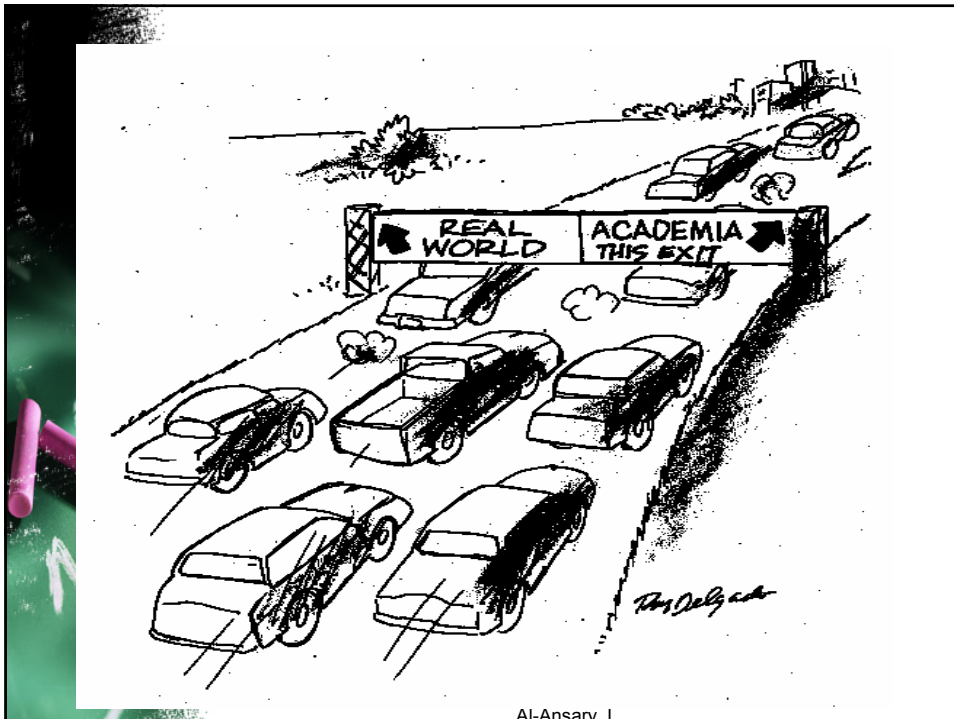
What Students learn at KSU?

To formulate
clinical questions:

– **P**opulation
– **I**ntervention
– **C**omparison
– **O**utcome

Rx **Educational Prescription**

Patient's Name   Learner:

3-part Clinical

Target Disorder:

Intervention (+/- comparison):

Outcome:

Date and place to be filled:

Presentations will cover:
1. search strategy;
2. search results;
3. the validity of this evidence;
4. the importance of this valid evidence;
5. can this valid, important evidence be applied to your patient;
6. your evaluation of this process.

EBHC for Undergrds/
Al-Ansary, L

What Students Learn?

To search for the best
answer using evidence
databases

TRIP+
Database Plus

InfoPOEMs
The Clinical Awareness System™

Pub Med

National
Library
of Medicine NLM
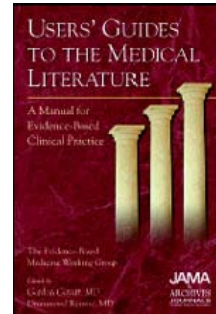
EBHC for Undergrds/
Al-Ansary, L

What Students Learn?

To critically appraise an article on _therapy_:

➢ Are the results *valid?*
➢ What were the *results?*
➢ Will the results help me in *caring for my patients?*

(2 Theory + practice)

USERS' GUIDES TO THE MEDICAL LITERATURE
A Manual for Evidence-Based Clinical Practice

JAMA

EBHC for Undergrds/
Al-Ansary, L

Format of the Mini-Course

- Brief oral presentation
- Written assignment

    1. **A**sking
    2. **A**ccessing
    3. **A**ppraising
    4. **A**pplying

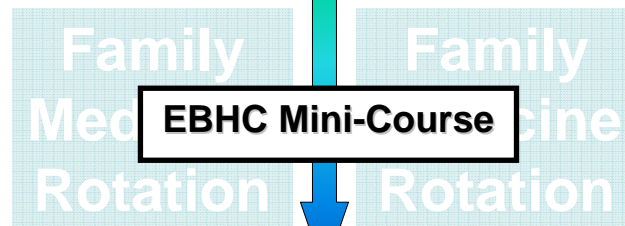- Written assessment of CA of an article on therapy
14% of total marks for the FM rotation

Aims:

P   Fourth year female medical students
College of Medicine, King Saud University

I   EBHC Mini-Course

Family Medicine Rotation   Family Medicine Rotation
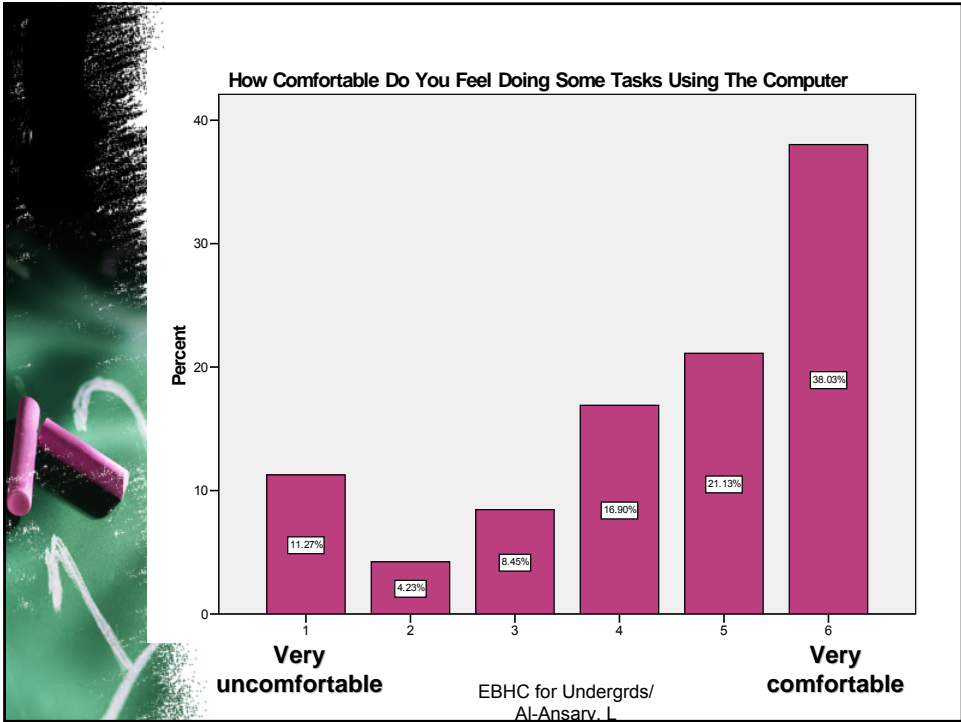
O   Attitudes
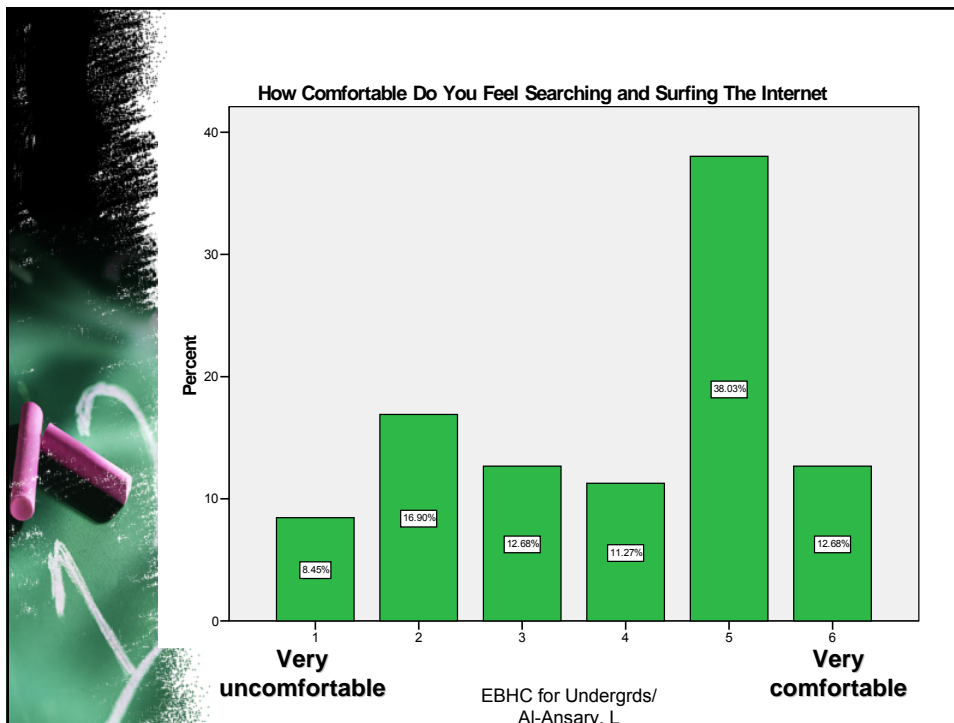Knowledge
Proficiency of Skills

EBHC   EBHC

Methods:

- **Before** and **after** the mini-course
  - 6 weeks
  - March and June 2006
- Questionnaire:
  - Attitudes-
  - Knowledge and skills:
    - Modified version of the **S**ociety of **I**nternal **G**eneral **M**edicine questionnaire www.sgim.org
- Marginal homogeneity test used to compare the responses

Results

- **Responses:**
  - **71** (out of 81) = **87.7%**

How Comfortable Do You Feel Doing Some Tasks Using The Computer

Percent

Bar	Value
1	11.27%
2	4.23%
3	8.45%
4	16.90%
5	21.13%
6	38.03%

Very uncomfortable ... **Very comfortable**

EBHC for Undergrds/
Al-Ansary, L

How Comfortable Do You Feel Searching and Surfing The Internet

Percent

| 1 Very uncomfortable | 2 | 3 | 4 | 5 | 6 Very comfortable |

8.45% — 16.90% — 12.68% — 11.27% — 38.03% — 12.68%

EBHC for Undergrds/
Al-Ansary, L

Attitudes Towards Controversial Aspects of EBM

Statement	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
Practicing EBM improves care	√				
EBM is of limited value in FM because most of it lacks a scientific basis					
The adoption of EBM, however worthwhile as an ideal, places another demand on an overworked student					
Training in EBM is important for medical students	√				
EBM is important for my CME	√				
EBM is a good concept but fails in practice					
The whole medical information explosion is overwhelming					
In the management of patients, clinical articles are important					

Al-Ansary, L

Attitudes Towards Controversial Aspects of EBHC

Strongly disagree

Legend:
- Median
- 3rd 1/4
- 1st 1/4

Y-axis: 5, 4, 3, 2, 1

Strongly agree

Categories:
- Of Limited Value in FM
- Demand On Overloaded students
- Good concept but fails in practice
- Whole medical information explosion is overwhelming
- Articles important in managing patients

EBHC for Undergrds/
Al-Ansary, L
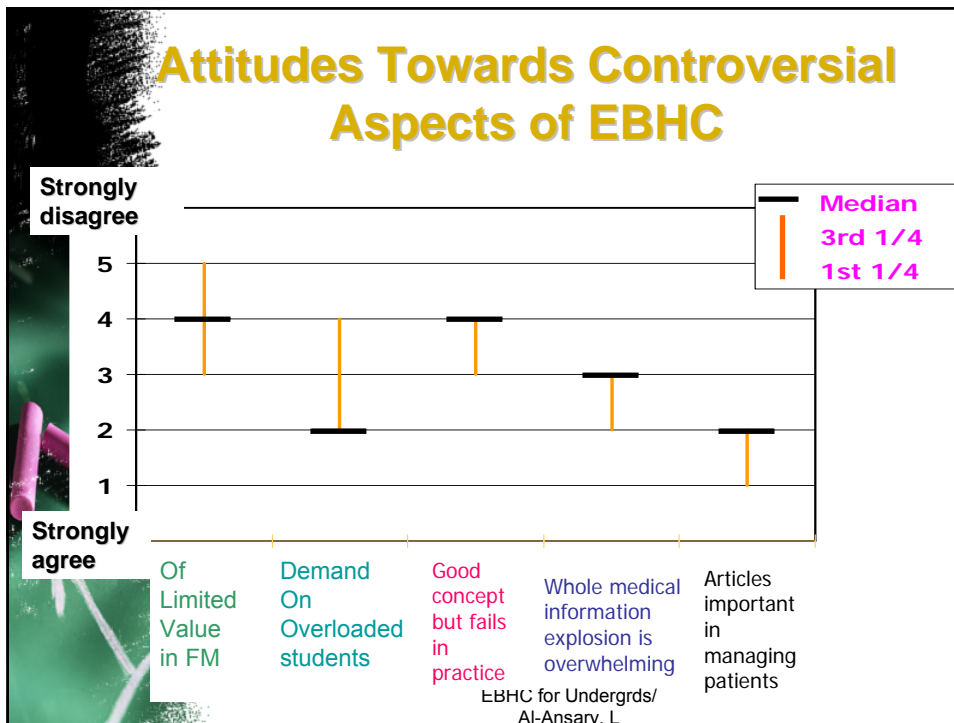
Change in Attitudes

Statement	P value
EBM is of *limited value in FM* because most of it lacks a scientific basis	.001
The adoption of EBM, however worthwhile as an ideal, places another demand on an overworked student	.643

EBHC for Undergrds/
Al-Ansary, L

14

Change in Attitudes

Statement	P value
EBM is a good concept but fails in practice	.000
The whole medical information explosion is overwhelming	.324
In the management of patients, clinical articles are important	.004

EBHC for Undergrds/
Al-Ansary, L

Sources of Information

- Familiar/ Unfamiliar
- Frequency of use, Comfort level and ease of access

(1) The **frequency** of your current use of the listed resource.				
N	R	M	W	D
Never	Rarely	Monthly	Weekly	Daily
(2) Your **comfort level** using the resource.				
1	2	3	4	5
Very Uncomfortable	Somewhat Uncomfortable	Neutral	Somewhat Comfortable	Very Comfortable
(3) How **easy is it to access** the specified resource in your current work environment.				
1	2	3	4	5
Very Difficult	Somewhat Difficult	Neutral	Somewhat Easy	Very Easy

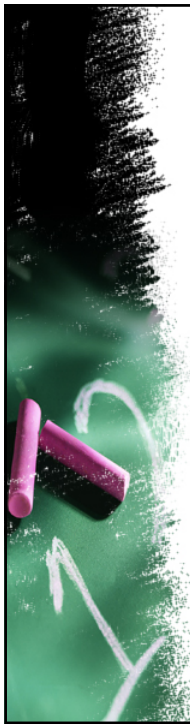# Familiarity and Use of Different Sources of Information (1)

Resource/Skill	Familiarity	Frequency	Comfort	Ease of Access
Asking a consultant	.806	.023	.066	.003
Using a print textbook	.806	.961	.958	.146
Asking a peer	.277	.097	.135	.032

Familiarity and Use of Different Sources of Information (2)

Resource/Skill	Familiarity	Frequency	Comfort	Ease of Access
MEDLINE	.934	.572	.042	.010
Cochrane Library	.004	.000	.000	.000
TRIP	.000	.000	.000	.000
InfoRetriever	.000	.000	.000	.000
Clinical Evidence	.001	.000	.000	.000

Comfort Level in Performing Specified Tasks *(Self-Rating)*

1	2	3
Very Uncomfortable	Moderately Uncomfortable	Somewhat Uncomfortable
4	**5**	**6**
Somewhat Comfortable	Moderately Comfortable	Very Comfortable

Specified task	1	2	3	4	5	6

EBHC for Undergrds/
Al-Ansary, L

Comfort Level in Performing Specified Tasks *(Self-Rating)*

Formulating a well-structured clinical question	.000
Calculating RRR	.000
Calculating ARR	.000
Calculating NNT	.000
Interpreting CI	.000
Interpreting LR	.000
Applying the results of a therapy study	.000

Skill in Formulating PICOs

- Scenario
- PICO

Attempt to formulate a PICO	.000
Completeness of The PICO	.000

EBHC for Undergrds/
Al-Ansary, L

Skill in Calculating RRR, ARR, NNT

- Abstract
- MCQs

RRR	.007
ARR	.003
NNT	.000

EBHC for Undergrds/
Al-Ansary, L

In a nutshell…

- Introducing the concept and skills of EBHC to medical students provides them with an opportunity to learn and practice these skills *with confidence in a safe environment.*

In a nutshell…

- The resultant change may direct their future behaviour towards providing more EBHC actions and better patient outcomes.

In a nutshell…

Effective teaching

- We need research
- We need assessment tools
- We need to share the results in some sort of forum and text

EBHC for Undergrds/
Al-Ansary, L

Thank you…

Knowing is not enough; we must apply. Willing is not enough, we must do.

29 6 2006