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“PICO”: Practice EBM skills, Increase student interests with Collaboration of librarians and improve Outcomes

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"PICO": Practice EBM skills, Increase student interests with Collaboration of librarians and improve Outcomes



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Introduction

Available literature on teaching evidence-based medicine (EBM) to medical students focuses on teaching critical appraisal skills, often in the context of a journal club, workshops or lectures. Being able to utilize EBM effectively means that a learner is able to take a clinical scenario, develop a clinically relevant question, search for the evidence, appraise that evidence, and apply the results of this appraisal back to the individual patient. Hence EBM activity is more likely to become a part of clinical decision-making if medical students practice the skills in the context of direct patient care.

Objectives

Our third year family medicine clerkship EBM activity focuses on these critical steps:

- Formulate clinical questions important to patient management
- Conduct an appropriate literature search to answer a clinical question and
- Utilize EBM resources available in an academic medical center

Collaboration with medical research librarians allows students to learn, to use experts to assist in finding resources.

Method

During orientation in our third year clerkship, students are instructed by faculty on the basics of how to formulate the clinical question in the PICO format (30 min). They get further instruction (1.5 hr) from experienced medical center librarians on hierarchy of high- quality information resources via the information pyramid and appropriate Evidence based resources for clinical decision making. Students identify a clinical question based on a patient encounter at their respective clinic sites and formulate a clinical question in PICO format. Students then complete an EBM activity worksheet, which is presented, discussed and then evaluated by both faculty and librarians separately.

Outcomes

Student feedback reflects increased interest and value in EBM through this experience as they are learning these skills in a low stress environment and in the context of an actual patient encounter.

Student Comments

Do more than one! We should be asking questions like this and seeking out answers every day.

I appreciated the librarian feedback and the class discussion, rather than just handing something in and getting a grade at the end of the clerkship.

More EBMs could be assigned. They are useful exercises and worth doing more than one of.

I really enjoyed this experience and felt that it was a very low pressure way for students to learn the importance of finding evidence based sources of information when regarding ways to improve patient care.

I feel more comfortable finding the most recent reviews in the Cochrane database for Systematic Evidence Based Medicine in the future.

EBM Student Feedback Report Blocks 01-05 (Aug- Dec 2011)
N=47

Date of Report: 01/25/2012

Category/Question (Scale: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree (6=Unable to Rate))	Average	Minimum	Maximum	StdDev
I understand the concept of evidence-based medicine.	4.8	4.0	5.0	0.4
I feel comfortable using EBM principles in day-to-day patient care responsibilities.	4.5	4.0	5.0	0.5
I believe critical appraisal skills have value to me as a third year student.	4.6	4.0	5.0	0.5
I am more likely to use the literature to support my clinical decision-making.	4.5	4.0	5.0	0.6
I am more likely to critically appraise the articles I read.	4.4	4.0	5.0	0.8
The Family Medicine Clerkship is an appropriate time to learn the concepts of evidence-based medicine.	4.5	4.0	5.0	0.6
I felt that my clinical understanding was enhanced through identification and appraisal of the literature.	4.4	3.0	5.0	0.6
My EBM search benefited patient care in some way.	4.1	2.0	5.0	0.9
		1.0	10.0	2.0
Please rate your experience with EBM from 1 to 10 (NEW SCALE: 1=poor, 10=excellent).	7.8	1.0	10.0	2.0

Future Improvements

1. Pre and post activity student assessment and feedback
2. Create more opportunities to do more than one exercise