

A Unique Evidence-Based Practice (EBP) Course in a Medical School

Jonathan Eldredge, PhD

Toby Palley, MD

University of New Mexico

July 16, 2013. EBLIP 7 Saskatoon, Saskatchewan

OBJECTIVE

To evaluate a unique three-year-longitudinal Evidence-Based Practice (EBP) course required since 2010 for all medical students.

This credit course, co-directed by a librarian and a physician, emphasizes the question formulation, evidence searching and critical appraisal aspects of EBP.

The librarian leads the course during the first year of medical school and serves as the instructor of record.

Population

First, second, and third-year medical students beginning during the first two weeks of medical school and concluding during the Family Practice Clerkship in the third or early fourth year.

METHODS

Prospective longitudinal cohort study.

The UNM School of Medicine's assessment unit independently tracks anonymous student feedback for the first year segment of the course.

The first author maintains student grades on tests and exams during the first year to gauge student knowledge of EBP as well as mastery of skills in question formulation and searching for the evidence.

Correct pre-test scores average 6% whereas competency exam scores two months later average above 90%. They take a pre-test 16 months later that includes question formulation and PubMed searching skills.

The course co-directors employ active learning methods throughout all large group sessions (formerly lectures).

Students during the second year apply their EBP knowledge and skills in faculty member-led Problem-Based Learning sessions of 8-9 participants.

RESULTS

Quantitative Data

The medical school's assessment unit carefully monitors anonymous student evaluations of the course during the students' first year.

The course consistently has earned high scores and positive narrative comments from these student evaluations.

Health Equity Course

Incoming medical students learn question-formulation and website critical appraisal skills during their first two weeks of medical school. Student evaluations of this brief segment of the EBP course embedded in the Health Equity indicate that students consistently rate developing these skills highly.

The assessment unit conducted a focus group during March 2013. First year students praised the EBP components embedded in the Health Equity course.

Genetics & Neoplasia Block

During their fourth month of medical school students learn EBP question formulation and searching skills that are translatable directly to their Problem-Based Learning curriculum.

Longitudinal data for the years 2010-2012 indicate high levels of student satisfaction.

Students' Evaluations

Question	2010	2011	2012
The EBP sessions were well organized	3.8	3.9	3.9
The EBP sessions helped me learn the EBP process	3.8	3.9	--
The EBP labs helped me learn MeSH, subheadings, and filters in PubMed	4.1	4.1	4.1
Numbers of students polled	98	90	105

Transitions Block and Family Practice Clerkship

Students toward the end of their second year in the Transitions Block encounter the continuation of the EBP course, which focuses heavily upon critical appraisal skills.

Dr. Palley manages this portion of the course. This segment and the segment that follow in the clinically oriented Family Practice Clerkship emphasize skills and knowledge . While less related to question formulation and searching, the majority of students during this segment still demonstrate retention of these skills.

Other Outcomes

Finally, a less evidence-based outcome bears mentioning: during both 2012 and 2013 the second year medical students have presented Dr. Eldredge with the Hippo Award for excellence in teaching.

During 2012 they even produced a whimsical video “Jon Eldredge: EBM Master” that reflected student’s learning how to search PubMed...

The video is available on YouTube:
<http://www.youtube.com/watch?v=daQFsHB768s&feature=youtu.be>



CONCLUSION

The unique EBP course might provide a prototype for other health sciences librarians attempting to integrate library/informatics skills into curricula.

Acknowledgements

The authors thank the UNM School of Medicine's assessment unit , the Office of Program Evaluation Education and Research (PEAR) for conducting the student evaluations.