

Title: Impact of short EBM training for final year Sri Lankan medical students

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Context and setting: Faculty of Medicine University of Ruhuna has 140 students per year who follow a traditional curriculum. The study focuses final year clinical students, who are heavily engaged in patient care and poised to authentically apply EBM training for patient care.

Why the idea was necessary: EBM (Evidence Based Medicine), which is the judicious use of evidence to inform patient care decisions, is an essential skill for self directed learning. Students following a traditional curriculum have limited opportunities to learn and practice EBM, especially using interactive hands-on modalities and in clinical care. This training was designed to improve student acceptance and skills of the first two essential steps of EBM, formulating a clinical question and performing a literature search.

What was done: A 10-hour EBM module with hands-on practice sessions was developed and implemented by Department of Medicine faculty. Prior to training, students (n=121) completed an 11-item preliminary survey on clinical inquiry and information use coupled with an objective EBM question adapted from the Fresno Test. Training concentrated on developing a focused clinical question and searching literature. Based on their clinical encounters, students developed patient-based questions. Students received training on searching literature using different PubMed strategies. Following training, students completed a post-test survey, which assessed their ability to search the literature for a given clinical question, repeat the pre-module question and complete a 20-item questionnaire on attitudes, perceived skill and training regarding EBM.

Evaluation of results and impact: Sixty-four students completed the preliminary survey, the module and post-test. Baseline characteristics of groups were similar. The preliminary survey revealed student Internet use for their studies as prevalent and 50% of students had Internet off-campus access. The majority use Wikipedia (81%), Google (77%), PubMed (48%) and Up To Date (6%). Ninety percent of students recognize clinical questions daily, but a minority (42%) seeks answers from others. Only 42% of students reported observing consultants ask for evidence based information for patient care, indicating poor role modeling of this skill.

Following EBM training students reported skill in formulating focused clinical question increased (61% strongly agree, 39% agree). Ninety-eight percent felt competent in performing a literature search (24% strongly agree, 73% agree) to locate answers to patient-care questions. The perceived competency was confirmed by assessment scores. Pre and post mean scores for formulating a clinical question was 1.02 (SD.24) and 2.39 (SD.75), the differences were highly significant ($P < 0.001$). Ninety percent completed literature search and 78% achieved the expected level of competency. Ninety-eight percent felt motivated to use EBM presently and in future patient care.

A short training module on EBM was well accepted by clinical students. Post-training performance improvement was highly significant. Students felt more confident and were motivated to practice EBM at present and in the future. High acceptance rates may reflect the

relevance of EBM at their level of clinical training, with the focus of module on the first two steps of EBM and occupying less number of hours, hence not being an added burden.