TEACHING EVIDENCE-BASED MEDICINE TO MEDICAL STUDENTS:
COMPARATIVE STUDY ON THREE MEDICAL SCHOOLS IN ASIA AND EUROPE

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Background:
Clinical epidemiology (CE) and Evidence-based Medicine (EBM) have become pivotal in production and application of evidence in contemporary health care. CE and EBM therefore are an important part of medical school curricula. This report describes the implementation of an integrated CE and EBM module in the Faculty of Medicine Universitas Indonesia (UI) and in the University of Malaya (UM).

Methods:
A CE and EBM module, entailing knowledge and skills on the approach to production and use of medical knowledge was originally developed at University Medical Center Utrecht (UMCU). It was adapted by a collaborative team from the University Medical Centre Utrecht, University of Indonesia (UI) and University of Malaya (UM). Before the start of the module, UI and UM staff involved in the module followed a training of teachers (TOT) course led by two experienced lecturers from UMCU. Student competences were assessed through pre and post multiple-choice knowledge tests, an oral and written structured evidence summary (evidence-based case report - EBCR) as well as a written exam. After completion all students also filled in a module evaluation questionnaire.

Results:
The mean pre-test result of UI (54.69; range 31.58-92.11) and UM (46.23; range 28.12 – 68.75) were significantly lower than that of UMCU students (62.20; range 9.38-87.50), (p<0.001). The means of post-test results of UMCU students (74.90; range 31.25-100) were comparable (p=0.48) with UI students (73.54; range 34.21-89.48), but significantly different (p<0.001) with UM students (61.39; range 18.75-81.25). Only 49% of UM students agreed that this module has achieved its objectives as compared to 89% in UI. Essential problems for the modules in both UI and UM were the limited access to literature and the variability of the tutors’ skills.

Conclusions:
Adoption of an existing western CE-EBM teaching module into Asian medical curricula is feasible while comparable learning outcomes are obtained.
Keywords:
Evidence based medicine, medical education, medical students