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Likić, Robert; Francetić, Igor

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Letter to the editor:

Benefits and drawbacks of implementation of PBL elements into a new course on applied pharmacotherapy

Authors: Robert Likic,[1] Igor Francetic [1]

[1] Department of Internal Medicine, Unit of Clinical Pharmacology, University Hospital Rebro, Zagreb, Croatia.

Correspondence to:
Robert Likic, M.D. (✉)
Department of Internal Medicine, Unit of Clinical Pharmacology, University Hospital Rebro, Kispaticeva 12, 10000 Zagreb, Croatia
e - mail: RobertLikic@inet.hr

Dear Sir,

In 2002, the University of Zagreb Medical School initiated a reform of medical education aiming at the development of an enhanced teaching and learning capacity. The reform pivoted around the introduction of three problem based learning (PBL) courses (Diseases of the Musculoskeletal System, Emergency Medicine and Rational Pharmacotherapy) to a total of 229 twelfth semester students. Rational Pharmacotherapy, a 4-week PBL course, consisted of 12 tutorials which were carried out three times a week along with traditional lectures (20), seminars (13), exercises (12), meetings with experts (4) and pro and contra debates (3). Under tutor supervision groups of up to 10 students had to solve a total of 4 weekly PBL cases closely related to practical pharmacological problems. Two multiple-choice tests were included. In order to complete the course students had to pass the second test. Comparison of the two test scores of a representative student sample group (n=42) showed a significant increase in the levels of the students' factual knowledge. All elements of the course were evaluated by the students who filled in a detailed questionnaire comprising of 34 questions on the quality of the whole course and its teaching formats. Students gave ratings

on a 7-point Likert scale ranging form 1="strongly disagree" to 7="strongly agree". The students' feedback confirmed the positive effects of PBL regarding learning fun, teamwork, interdisciplinary approach and the quality of teaching materials with average scores ± SD of 5.42±1.66, 5.39±1.7, 5.36±1.65 and 6.0±1.42 respectively.

There is an active, ongoing debate in the literature on vices and virtues of PBL teaching approach. One of the main drawbacks of PBL is its requirement for substantial financial, time, space and faculty resources. The problem becomes even more evident with the introduction of pure PBL curricula into the medical schools of developing countries, placing additional demands on their already restricted resources.

Judging from our experience, partial PBL integration into a traditional curriculum can effectively facilitate curricular reform and may prove a more suitable and cheaper route to change than the implementation of a complete PBL curriculum, especially in a transitional country lacking the adequate financial and faculty resources. Our results show that PBL methods can be an effective alternative to traditional teaching of students, simultaneously providing more initiative, team-work and pleasure in the learning process.