Evaluation of Multiple Choice Questions in the School of Medicine, Mazandaran University of Medical Sciences, the First Semester of 2007

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Background & Objective: Multiple Choice Questions (MCQs) are the commonest form of exams in medical education which are highly reliable; however their structural and content validity, taxonomy and structural principles have always been considered by researchers. This study was designed to evaluate quality of MCQs in the school medicine, Mazandaran University of Medical Sciences, regarding taxonomy and structural principles.

Methods: In this descriptive study, all MCQs of written exams held during a whole semester in the school of medical in Mazandaran University of Medical Sciences were evaluated. All questions were assessed according to taxonomy (in three levels of recall, comprehension, and application) and structure using a checklist which was based on Millman's principles for designing stem and choices of questions.

Results: Among 1478 questions related to 25 exams, questions related to lessons of basic sciences, physiopathology, and clerkship were 28.7%, 18.7%, 52.6% respectively. 77.4 percent of questions were in Taxonomy I and the rest were designed in Taxonomy II and III. 46 percent of all questions had no structural problems while the rest had one or more structural problems. Taxonomy and structural problems in exams related to clerkship and physiopathology were significantly less than basic science lessons (p=0.023 and p=0.001 respectively). Questions of higher taxonomy had less structural problems.

Conclusion: Our present study showed that the quality of MCQs regarding structural principles and taxonomy were different in exams of different levels which necessitate further revisions.

Key words: Educational improvement, Multiple Choice Question, Taxonomy, Millman's principles

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