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European Journal of Experimental Biology, 2014, 4(3):281-283



Portfolio for Promoting Training and Evaluation performance in Senior Medical Student

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ABSTRACT

Portfolio is a technique for combination of teaching and evaluating in educational procedure and a valuable method for evaluation of students' clinical training programs. This study evaluated effectiveness of implementation of portfolio for promoting training and evaluation performance in senior medical student in Mashhad, Iran. Portfolio includes students' logbook, report of outpatient visits, calculating health indexes, providing documentation, evaluation scores and students' self-evaluation results. In this descriptive study, performance of senior medical students was evaluated by portfolio in 2011-13. Score of student's performance based on portfolio and health centers supervisors' evaluation also overall medical students' satisfaction of evaluation function was assessed. Data analyzed by using SPSS_{11/5}. Compared with the prior period, by application of the portfolio, performance average scores and health center supervisor's evaluation average scores of senior medical students were changed from 15 to 17 and 17 to 18 respectively. Students' overall satisfaction from their teaching efficiencies and carried evaluation was 72%. Portfolio was a useful method for senior medical students' evaluation and not only affects students' educational performance improvement, but also considerable satisfaction toward portfolio was reported.

Key words: Medical Student, Evaluation, Teaching, Portfolio, Educational Procedure

INTRODUCTION

Portfolio includes on purpose and perceptive gathering of students activities which is describing their performance and demonstrates their achievement and progress in a special didactic subject [1-3]. Portfolio comprises student's

feedback, self-evaluation, instructions for carrying on, chores license, judgmental criterion about accomplished job quality and it can include although: research projects, report of seminars, oral presentations, offering special experiences, feedback of group working, group relationship and learning signs during the time [3,5].

In order to exhibit medical students' versatility and their job quality, portfolio has the ability for showing daily actions, it also comprise most effective part of students' performance [4-6]. In portfolio method trainers by exhibiting samples of their progress during a distinct period of time let appraisers to evaluate their progress rate [6, 8]. Portfolio may emphasis on final results of training or applies in order to demonstrate educational development or learning progress, that in latter it actually assists for diagnosing learning problems and educational guidance [8, 9]. Portfolio content designing is based on curriculum and faculty who overwhelms this curriculum have important role in that, also senior students also can assist in its designing, actually senior students are interested in preparing visual records from group activities and reporting scientific experiences and transferring special experiences more than recording and taking note from their activities [7, 9]. Portfolio is gathering observation and performance in real situation that could obtain accurate judgmental abilities by acquiring necessary inputs in every compass; also it offers an instruction for trainer performance which is considered an effective tool for evaluation -training and combination in educational system [3, 5].

By developing evaluation culture, interests toward applying portfolio as an effective method in evaluation of results of curriculum implementation and trainers performance is increased, also applying portfolio in order to evaluate health care professions and improving traditional educational system increased [1, 2]. This study carried in order to study effectiveness of portfolio for promoting training and evaluation performance in senior medical student in Mashhad, Iran during 2011-2013.

MATERIALS AND METHODS

In this study in order to improve senior medical students training performance, an applicable portfolio based on medical students' curriculum purposes and educational compasses is organized. Designed portfolio after primary administration and proving its final justifiability is used in community medicine department. In beginning of every educational course of community medicine, we introduced designed portfolio to senior medical students with necessary explanation in order to completion and evaluation of it. At the end of the course completed portfolio received from medical students. During the course and after student departure to health centers, students were in touch with their professors, completed portfolio as set of actions which student could perform and observer of student activities during the course time was used in student evaluation.

Portfolio includes students' logbook, report of outpatient visits, and the health indexes, providing documentation like photos and power points of students' seminars, evaluation scores by health center supervisor and students' self-evaluation results. Portfolio content was specified and after execution, students' performances and their evaluation scores were compared with previous courses. Portfolio execution analyze included evaluating student satisfaction and studying their attitudes, considering health centers supervisors satisfaction and student participation in projects, variation in health center evaluation average scores before and during carrying out portfolio. Data analyzed by SPSS11.5, and described using central indexes, dispersion and abundance percentage. Quantitative and qualitative variables relation was studied by T-test and quantitative variables are studied using chi2 test. Statistical meaningfulness considered less than 0.05.

RESULTS

This study results showed that average performance scores of senior medical students compared to before applying portfolio changed from 15 to 17 (PV=0.01). Health centers supervisors satisfaction from senior medical students' participation changed from 40% to 71% (PV=0.03), also health centers supervisors satisfaction evaluation scores from students increased too (17 against 18) (PV=0.04).

Studying of the senior medical students attitudes toward course of community medicine showed that before applying portfolio, 32% of students were declared their satisfaction while after applying portfolio 72% of them announced their high satisfaction based on clarify of their duties (PV=0.02), also their positive attitude toward educational effectiveness of their task in health center before and after applying portfolio was 39% and 79% respectively.

During execution of this plan observed that data gathering and student assignments was difficult and time consuming which needed grateful management. Providing a specified and regular management and not a random and uncertain method for evaluating portfolios was so difficult but vital. Also portfolio scoring and studying different students' performances with different methods like ranking scale, teacher judgment and portfolio completeness may decrease scoring reliability and stability [5, 10, 12]. In this study we tried to unify different evaluators scoring by making clear portfolio items as possible.

DISCUSSION

Comparisons of senior medical students training scores in similar courses with students who are evaluated by portfolio indicates that in second group, average training score was increased. Some study showed that most of students know little about what they are evaluated about, but applying portfolio provides proper background for studying student attempts in order to develop and improving appropriate criteria for evaluating of their performance [1,10].

McMullan and his colleagues (2003) by analyzing of 20 studies which had studied portfolio application in evaluation of students declared that portfolios are a comprehensive method for evaluating clinical students and this method directly assesses students learning outcomes [2]. A study in Iran studied effects of training and clinical evaluation on nursery students cognitive learning using portfolio, comparing two method declared that portfolio method improved cognitive learning more than reconciliation method and students got higher scores [6]. Another study which compares nursery student clinical evaluation using portfolio and common method, effects on student satisfaction stated that in some cases which studying subject in evaluation method are consistent with clinical internship purposes, students tendency toward for participating in learning process and inclination for using scientific resources, students satisfaction in portfolio method was more than other common methods, but students got lower scores in portfolio than other common evaluation methods, which researcher believes that this is because of student are not accustomed with portfolio method [1].

Studying effects of training and clinical evaluation by portfolio method on another group of nursery students cognitive learning and comparing with other methods found that portfolio more than reconciliation method improved cognitive learning and nursery students in their study obtained higher evaluation scores [6]. It is appropriate to mention that in applying portfolio it's not acquired to register every single activity and all unnecessary details of the studying activity shouldn't document in portfolio, because by massive unnecessary documentation, portfolio's efficiency will be decreased and its data management will be more difficult. Also portfolio contents must be kept update and using reporting its content recalling should be analyzed carefully.

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