Medical teachers' attitudes towards educational workshops

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ABSTRACT

Background *Training teachers through educational programs are necessary for fulfilling health science teaching competencies. Short-term workshop has variously reported as an influential training program.*
Purpose *The purpose was to determine the effects of educational workshops on teaching performance of medical teachers.*
Methods *A 29-item questionnaire containing demographic information, and attitude, changes of interest, educational performance and ability, and also participants' comments and suggestions were administered after the three educational workshops.*
Results *Results highlight effects on changing the behavior mostly in increasing the teaching performance. They also indicate more improvement of younger faculty who had recently started their educational activities.*
Conclusion *Further evaluations are needed to determine all the aspects of teaching performance for having most effectual educational workshops.*

Key words *EDUCATIONAL WORKSHOPS, MEDICAL EDUCATION*

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Introduction

The World Health Organization has recommended that for competent health sciences educating knowledge of teaching methods and adult learning principles should be considered. It is therefore necessary to pay attention to the medical teacher training programs. Short-term educational workshops have been reported as an effective method for influencing medical teachers (1). Evaluation of students following small-group workshops has also shown that students have demonstrated significant improvements compared with a similar group of students for whom training followed the more traditional model. (2). Improvement of medical education is largely dependent upon the knowledge of medical teachers about teaching methods, their teaching attitudes, and the students' orientation (3). Various studies have indicated that a short-term workshop significantly influences the attitudinal shift towards accepting student-oriented educational plan-planning principles (4). The workshops are planned not only to present new methods and information, but also equally important to encourage in the participants more favorable attitudes towards medical education (5). On the other hand, it has been provided that improvement of physicians teaching skills is a positive feedback for showing interest and willingness to teaching (6). Such workshops have a dual effect on teaching quality, by improving teaching competencies in short-term, and by the faculty serving as a role model in long-term (7).

In a study results of tests given to participants in six American Society of Anesthesiologists workshops were analyzed to determine whether attendance at the workshops increased the participants' scores on sequential tests. In only one instance did those who attended the workshop improve their scores significantly more than did the control group (8). The results of an evaluation of teaching skills improvement program for all the residents of School of Medicine in New Orleans, Louisiana State University for four years, suggest that giving residents instruction can improve their teaching skills. (9).

Review of literature has shown no systematic efforts to assess the workshops since 1973 that the Department of Medical Education of Shiraz University of Medical Sciences (UMS) held educational workshops. The purpose of this study was to determine the effects of educational workshop on teaching performance of medical teachers, using a post-workshop questionnaire com-

pleted by the faculty members participated in the workshops.

Materials and Methods

Between 1993 and 1996, three educational workshops of educational principles and planning, teaching methods, and evaluation techniques were held by Educational Workshops Committee (consisting of 3 to 4 faculty members of medical university), the Educational Development Center and Vice-chancellor of Education of Shiraz UMS. Eighty and five faculty members from the different disciplines of surgery, gynecology and obstetrics, pathology, pediatrics, internal medicine, community medicine, health care, dentistry, radiology, nursing, midwifery, pharmacology, dermatology, pharmacy, rehabilitation, psychiatry, biochemistry, micro- biology, anatomy, ENT, opthalmology, anesthesiology, and paramedical branches of Shiraz UMS have participated in these workshops. The workshops were organized for 3 to 4 days, 18 to 24 hours. The questionnaire accompanied by a letter describing the study objectives and also the consent form was posted and completed by 71 faculty members who participated in all three workshops.

Subjects' Characteristics: The participants were 23 women and 48 men; mean [±SD] age, 41.35 ± 5.96 years; mean [±SD] teaching, 10.76 ± 6.31 years, and mean [±SD] time since graduation 10.01 ± 0.76 years. 71.8% of them had specialty or subspecialty.

Questionnaire: A 29-item questionnaire using 5-point scale ranging from 1 (not at all) to 5 (very much) for 15 items and 6 open-ended questions, had requested demographic information (7 items), and attitude, change of interest, educational performance and ability, and also participants' comments and suggestions (22 items). Twelve questions were selected based on the objectives of the study from the Constructed Attitude Scale, with a high level of internal consistency (10). Some questions were modified according to the Iranian culture and beliefs.

Methods of Analysis: Data analyses were conducted by EP16 software. The results were assessed using frequency distribution and means; the correlation between the responses and the quantitative variables were determined using correlation test; and the comparisons among different groups were measured using one-way analysis of variance and t-test.

Results

(A) *Change of teaching behavior*

Responses to items 1, 3, 7, and 13, showed that 64.8% of the participants rated their improvement of teaching ability "much" and "very much" (item 3), 84.6% rated their improvement of teaching method "moderately" and "much" (item 7).

(B) *Effect of workshop materials*

Responses showed that 77.4% believed workshop content was related to their teaching activities "moderately" and "much" (item 4), and 51.4% had rated the usage of workshop content in their teaching "much" (item 15). Responses to item 9 (a) and 9 (b) showed that 72.1% used the workshop handouts, and 48.6% used references introduced in the workshops, "moderately" and "very much", respectively. However, other educational journals were used only "rarely" by 38.2% (item 9 (c)).

(C) *Attitudinal change towards education*

Responses showed that 60.6% rated their increased motivation and interest in teaching following participation in workshops "much" and "very much" (item 2). Also, 85.3% had recommended the workshops to their colleagues "much" and "very much" (item 8), and 69% had rated their attitude improvement towards educational planning, teaching methods, and evaluation techniques "much" and "very much" (item 14). The overall rating of improvement of evaluation techniques was high for the items 5, 6, and 12 (Table 1).

The means of some defined variables that measured attitudinal shift in education; the effect of workshops on using objectives in educational planning, and teaching and evaluation improvement; and also the practicality of workshop concepts in present activities; were compared based on sex, level of education, and specialty. Only for the change in educational planning was there a significant difference of means between the sexes, being higher in women ($p < 0.03$). No significant difference was found in other areas. The correlation coefficient of the scores of these variables with age, time since graduation, and teaching experience was also not statistically significant (table 2).

(D) *Open-ended questions*

(1) In response to "which of the 3 workshops has had the greatest effect", 69% believed teaching methodology workshop and 46.5% believed evaluation workshops had the greatest effects on participants. In open-ended questions, in response to "in what aspects have you used the material presented in workshops", 66 said they had used workshop content to improve their teaching methods by using teaching aid tools, bedside group discussions, student participation, and methods of motivating students.

(2) In response to a question regarding the obstacle in using the learned knowledge in workshops, most (38 subjects) believed that time shortage was one of such obstacles. Insufficient motivation in teachers and students, poor audio-visual facilities, the high number of students in class, inappropriate educational planning, and the great volume of lessons were other restrictions cited in this regard.

(3) Another open-ended question was concerned with the changes teachers had made in their teaching methods after participating in the workshops. Most responses included active student participation in

TABLE 1. PERCENTAGE OF RESPONSES TO CLOSED QUESTIONS OF THE QUESTIONNAIRE

Questions	Not at All (1)	Rarely (2)	Moderately (3)	Much (4)	Very Much (5)
Since the 3 educational workshops:					
1. Have you tried to pass on any ideas put forward at the workshops?	1.4	1.4	29.6	59.2	8.5
2. Have your interest in medical education increased?	4.2	7.0	28.2	47.9	12.7
3. Have your teaching ability improved?	2.8	5.6	26.8	56.3	8.5
4. Are the workshops related to your teaching activities?	1.4	2.8	40.8	36.6	18.3
5. Have you evaluated and refined your own teaching method?	1.4	4.3	37.1	44.3	12.9
6. Have you asked about your teaching style from your students?	5.7	12.9	32.9	35.7	12.9
7. Have you altered your teaching method in any way?	2.8	5.6	42.3	42.3	7
8. Have you recommended the workshops to any colleague?	1.5	4.4	8.8	48.5	36.8
9. Have you referred to:					
a) the workshops handouts?	2.9	20.6	47.1	25	4.4
b) any suggested further readings?	14.7	35.3	36.8	11.8	1.5
c) any educational journals?	14.7	38.2	19.1	19.7	8.8
10a. Have you had the opportunity to specify aims?	2.9	1.4	21.4	58.6	15.7
b. If Yes, did you do so?	-	1.5	39.7	47.1	11.8
11a. Have you had the opportunity to specify objectives?	2.9	4.3	31.9	50.7	10.1
b. If Yes, did you do so?	1.5	1.5	47.7	41.5	7.7
12a. Have you introduced any evaluation procedure?	-	11.8	41.2	35.3	11.8
b. Have you refined any of those already in use?	-	8.6	28.6	52.9	10
13. Have you introduced any techniques to make learning easier for your students?	-	4.3	27.1	64.3	4.3
14. Have your attitude improved on planning, methods, and evaluation?	-	5.6	25.4	50.7	18.3
15. Have you used the learned material from the workshops?	1.4	2.9	28.6	51.4	15.7

learning, using teaching aid tools, and relative change in their past teaching techniques.

(4) Other open-ended questions assessed general effects of these workshops on participants. Most answers pointed to its effect on teaching (n=36) and evaluation (n=29) techniques. Other items stated were educational planning, optimized usage of teaching aid tools, and especially increased teaching motivation.

(5) Regarding deficiencies in holding workshops, the most important points stated were the long period between workshops and commencement of teaching activities, short duration of workshops, accommodation problems, and, most importantly, the discrepancy between the material presented in workshops and educational management planning.

(6) In the last open-ended question, participants were asked to state their comments and suggestions regarding improving the educational workshops. The most important suggestions were: participating in workshops when the faculty begin their teaching activities, increasing the duration of workshops to more than three days, repeating the workshops, the workshops being held in a better place with better facilities, and finally control of Medical Education Department over educational programming of the university.

Discussion

Although the relationship between attitude and behavior is controversial, it seems that attitudinal changing the behavior. If medical universities are to solve society needs, it is therefore necessary that continuing education of the faculty be done in a suitable way. In this regard, evaluation of current or past such educational programs is essential.

The results of this study have generally shown that these workshops has had a relative effect on changing the behavior, being greatest in increasing the everyday teaching abilities of the participants. Also, workshops such as those on teaching and evaluation methods, which have a direct relation to faculties' performance, were more effective than those on educational planning, which were used less in most universities and medical schools. Therefore, unless there would be an opportunity for workshop participants to practice their knowledge and skills in different departments, not only the workshops would not have a positive outcome, but they might even have negative effects on the attitude of the future participants.

Another point shown by this study was the positive effect of these workshops on some of the faculty towards changing the education conditions from passive learning by the students to active learning. The fact that the workshops were more effective on young-er faculties who had recently started their educational activities showed that educational workshops should be presented even more to such groups. In general, it seems that in order to evaluate the effects of educational workshops, its effect on different aspects of medical teachers' performance should be observed.

TABLE 2. CORRELATION COEFFICIENTS (r) AMONG DEMOGRAPHIC VARIABLES AND VARIABLES OF WORKSHOP EFFECT. NONE OF THE OBSERVED CORRELATIONS WAS SIGNIFICANT ($P > 0.05$)

Demographics	Behavioral Change	Attitude Change	Effect on Evaluation Techniques	Effect on Teaching Methods	Effect on Educational Planning
Age	0.1	0.03	0.07	0.07	0.00
Time Since Graduation	0.06	0.06	0.06	0.28	0.00
Teaching Experience	0.01	0.04	0.38	0.32	0.06

change towards education can be very effective on presented even more to such groups. In general, it seems that in order to evaluate the effects of educational workshops, its effect on different aspects of medical teachers' performance should be observed.

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