Factors affecting faculty evaluation by students in Kerman University of Medical Sciences

Esmat Nouhi, MSC[1]; Saeedeh Farajzadeh; Ashraf Adhami

[1] Member of Education Development Center, Kerman University of Medical Sciences

ABSTRACT

Background *Using students' judgment through opinion questionnaires is one important tool in determining the faculty members' success in the education process.*

Purpose *To determine the factors affecting faculty evaluation by students.*

Methods *In this cross sectional study the students in different years from all schools of Kerman University of Medical Sciences (KUMS) participated. Data was gathered from 505 students by a questionnaire consisting of two parts; the first part included the demographic data of the students and faculty members and the second consisted of 10 questions in Likert 5-level scale. These questions were based on the formal evaluation questionnaire developed by the Ministry of Health and Medical Education were modified after consulting with the experts of KUMS and determining the weight of each choice by the trim mean method. The validity of the questionnaire was determined by considering the experts' opinion through Delphi method and by using the content validity method (r=0.89). The reliability of the questionnaire was determined by a repeat test (r =0.91).*

Results *Using SPSS software, data were analyzed by central and distribution indices with T-test, univariate test and regression test. In general, the majority of faculty members (69.8%) have a "good" rating in education, in the viewpoint of students. In assessment of the effective factors, these variables were found to have a significant influence: the academic degree of the faculty member (P<0.001), faculty member's sex (P<0.01), the subject (P<0.05), student's age (P<0.05) and final score (P<0.01), the instructor's dedication and interest in the subject (P<0.001) and instructor's strictness (P<0.02), so that the higher scientific degrees, male faculty members, specific subjects and dedicated faculty members received a better score and strictness had a negative impact.*

Conclusion *The students' evaluation of faculty members is affected by some factors, which reflects the complex nature of evaluation, the necessity of caution and attention in making conclusions and judging on the basis of a multi-dimensional assessment of the educational performance of the faculty members.*

Keywords *FACULTY EVALUATION, EFFECTIVE FACTORS, STUDENT FACULTY EVALUATION*

Journal of Medical Education Fall 2002;2(1):18-23

Introduction

Evaluation of the instructors' performance is one of the key problems in universities and educational centers (1). Faculty evaluation is to determine the success level of the instructor in achieving educational objectives. The most important goal of faculty evaluation is providing an appropriate feedback in order to improve and reform the educational method used by faculty members, and also to help the authorities and managers of educational institutes to make sound decisions about employment and promotion. Therefore, there's no doubt that evaluation is a necessary and productive measure (2). The working environment, colleagues and students control the type and the quality of instructors' improvement. According to the findings of Motlagh et al., most of the faculty members (93.3%) viewed faculty evaluation as necessary (3).

There are three major ways for conducting such evaluation: 1) feedback from students, 2)

systematic feedback through class observation, and 3) personal analysis of the class (4). Utilization of student's judgment by scaled criteria and opinion questionnaires is one of the most important tools in determining the degree of success of the university instructors, and provides useful information to improve and enhance the educational experience of the instructors (5). No one is more aware of the quality of faculty's performance than the students (6). Therefore, knowing students' beliefs and opinions about the educational activity would be quite valuable for the instructors, especially when there is going to be changes in the educational trends (7). Findings of Haji-Aghakhani showed that 53.6% of faculty members had an average compliance for evaluation by students, 58% considered this kind of evaluation to be effective on their activities before instruction, compared with 50.7%, and 63.8% who consider it to be most effective during and after the instruction respectively(8).

The evidence reported by Murray shows that evaluation by students is reliable and has strong consistency with the scores given by other observers (5). Also, Cuthrie found 87% and 89% consistency between the evaluation by students from one year with another, and the students' judgment of faculty's performance was more consistant than the school authorities' judgment (9). Despite the belief that the best way to assess the educational activity is by means of taking students' opinions who are involved in the process of education, other experts believe that considering the different motives and incentives of students for entering university, such as getting a certificate, and issues other than knowledge development, their evaluation of faculty members is not necessarily in accordance with reality (2).

In the past three decades, several studies have been performed on the issue of faculty evaluation by students. The results of these studies showed that students' evaluation is under the influence of a number of chosen factors, which reflects the complex nature of evaluation and the necessity of caution and attention in making conclusion about the quality of instruction (5). Some of these factors are: the size of the class, the academic degree of the faculty, the class time, the duration of education, the faculty's and the student's sex, the level of student's expectations of the faculty, demographic characteristics, cultural factors, voluntary or obligatory nature of the classes, general or specific subject to be taught, student's age, the faculty member's educational experience, and the time of evaluation (10). In addition, the instructor's characteristics such as one's popularity among the students, social reputation, handsomeness, having political and cultural information, roll calling in the class, and having a managerial or executive position, affect the student's evaluation of the faculty member (11). Studies have shown that 95% of vice-deans for educational affairs considered educational activity as a major factor for promotion of scientific degree, salary and formal employment of the educational staff. If gathering the results of such an evaluation is not based on a correct and valid method, and if it does not have an appropriate feedback to the system, it can lead to loss of motivation and development of resistance among those who are being evaluated. It is also possible that talented persons would not be awarded, but in the other hand, inappropriate attention from the authorities will be devoted to those who don't deserve it. This in turn leads to despair of valuable members of the society (12). Therefore, in order to use the advantages and reduce the disadvantages of the evaluation method, it is vital to clearly identify the effective factors on the opinions of students as the evaluators, according to the regional and cultural circumstances and conditions.

Materials and Methods

This cross-sectional analytical study was conducted to determine the effective factors on students' evaluation of the faculty members. The study group was the students in different years from all schools of Kerman University of Medical Sciences (KUMS). The students were chosen by stratified sampling, based on the different schools and the type of the subject (general or specific). Of a total of 1544,505 students were included. The number of students chosen from different years of each school's in KUMS was calculated on the basis of that school student number and by using the sample size formula.

The data-gathering tool was an SEEQ questionnaire (Student Evaluation of Educational Quality), which consisted of two parts; the first part included the demographic data of the student and the faculty member, and the second part was the faculty evaluation form, which

consisted of 10 Lickert 5-stage questions (excellent, good, medium, poor, very poor). These questions were prepared using the standard questionnaire developed by the Ministry of Health and Medical Education. The weight of each item of the questionnaire was determined by consulting with experts and by using the trim mean method. The questionnaire was used after confirmation of its validity and reliability.

The validity of the questionnaire was determined by considering the experts' opinion through Delphi method and by using the content validity method (r=0.89). The reliability of the questionnaire was determined by a repeat test (r =0.91). The contacts of educational departments in each school collected the questionnaire from the students. The scores of faculty evaluation were examined and compared according to factors including the student's sex, age and final score, the size and time of the class, the faculty member's sex, age and academic degree, the type of the subject, the instructor's dedication and interest in the subject and his/her strictness.

Using SPSS software, data were reported in the form of simple frequency distribution tables and central and distribution indices and were analyzed with parametric tests including T-test, univariate test with posthoc and regression analysis.

Results

The average age of the sample population was 20±1.67 years. They were divided into three age groups: 18-19, 20-21 and 22-24. Most of the students were in the age group of 22-24 yr and the least (29.1%) belonged to the age group of 20-21. The sample consisted of 53.1% males and the rest were females. Of the students studied, 35.8% were in their first or second year of education and 44.8% had passed 4 years or more.

Of faculty members being evaluated, 24.6% were female, most (57.8%) were assistant professors and 34.7% were training faculty members. The highest and the lowest percent of faculty members belonged to the schools of medicine and dentistry with 27.7% and 12.3%, respectively. The average score for faculty evaluation was 38.91±7.99. Of the faculty members, 37.01% and 32.83% received "excellent" and "good" rating, respectively; and 14.9% had a "poor" rating. "Discipline and on-time presence in the class" (81%) and "expertise on the subject" (64%) were the items most students considered to be good. In contrast, the most poor-ratings belonged to "taking various exams during the semester" (27.5%) and "appropriate utilization of educational aids" (15.7%).

The results showed a statistically significant relation between the student's age and the score of faculty evaluation (P<0.032) so that the highest score was given by the age group of 18-19 yr (40.07±7.2) and the lowest score was given by the age group of 22-24 yr (37.87±8.9) (Table 1). There was no significant relation between the student's sex and the faculty member's score, but such a relation was found between the instructor's sex and his/her score (P<0.01) (Table 2). Analysis of faculty member's scientific degree and his/her score revealed a statistical linkage (P<0.001) so that

TABLE 1 MEAN AND STANDARD DEVIATION OF FACULTY EVALUATION SCORE ACCORDING TO STUDENT'S AGE (P < 0.032)

Age	Mean	Standard Deviation
18-19	40.07	7.2
20-21	38.80	7.4
22-24	37.87	8.9

TABLE 2 MEAN AND STANDARD DEVIATION OF FACULTY EVALUATION SCORE ACCORDING TO FACULTY'S SEX (P < 0.015)

	Mean	Standard Deviation
Male	37.40	8.13
Female	39.40	7.89

TABLE 3 MEAN AND STANDARD DEVIATION OF FACULTY EVALUATION SCORE ACCORDING TO FACULTY'S SCIENTIFIC DEGREE (P < 0.001)

Degree	Mean	Standard deviation
Professor	44.16	4.60
Associate Professor	46.17	5.19
Assistant Professor	37.76	8.61
Trainee	39.95	6.49

the best score (39.95±6.49) went to those with a professor degree (Table 3).

Faculty evaluation score had a statistically significant relation with the student's final score (P<0.01, r=0.134) and also with the type of the subject (P<0.05). The highest average score (43.37±6.62) belonged to the specific voluntary subjects and the lowest (37.07±8.28) to the general obligatory subjects.

In addition, the evaluation scores were analyzed according to the students' general perception of the faculty member. The instructor's interest in the subject, his/her seriousness in education, and his/her strictness had significant relations, with P values of less than 0.001, 0.001 and 0.02, respectively, so that interested, dedicated and serious faculty members received higher scores, while strictness had a negative impact on students' opinion (Table 4).

TABLE 4 MEAN AND STANDARD DEVIATION OF FACULTY EVALUATION SCORE ACCORDING TO FACULTY'S DEDICATION, SERIOUSNESS AND STRICTNESS

Characteristic		Mean	Standard Deviatior	Statistical Significant
Dedication	Yes	39.97	6.96	P<0.001
	No	33.35	10.44	
Seriousness	Yes	40.18	7.035	P<0.001
	No	34.42	9.50	
Strictness	Yes	38.48	8.14	P<0.02
	No	40.39	7.34	

In assessment of other factors such as the student's sex, his/her educational year, the faculty member's age, and the size and the time of the class, no significant relation was found with the evaluation score.

Discussion

Improvement of the quality of education through accommodation of the objectives with educational performance and activities is the most important basis of educational development in all countries. The goal of evaluation is to achieve better educational guidelines and practice. Students' opinion as one of the most paramount evaluation instrument has repeatedly been used in deciding about faculty's performance. Our findings confirm that faculty evaluation by students is under the influence of various factors and variables, which emphasizes the necessity of complementary and multi-dimensional evaluation of faculty performance. According to the findings of Shakournia et al. 57% of faculty members believed that students introduced their personal bias in their judgment (13).

Our findings showed that student's age plays a role in faculty evaluation, so that the mean faculty evaluation scores given by the students of lower age group and juniors classes were more than those given by other groups. This is probably due to inadequate educational experience and less recognition of the instructors.

The results show a statistically significant relation between the faculty member's sex and one's score. According to Iranfar there's a meaningful relation between the instructor's sex and students' opinions, so that the females give a higher score to the faculty members of the same sex but the males have a preference for the faculty members of the opposite sex (14).

Our findings indicate that the type of the subject has an influence on students' opinion, which is in concordance with the results of Murray's study. He explained that the obligatory or voluntary nature of the class is effective on the students' evaluation of the faculty (5).

No significant relation was found between the evaluation score and the size of the class. Min suggests that with fewer students attending the class, they'll have a better understanding and perception from the class and the teacher will be able to spend more time with and pay more attention to the students and will have better opportunity to discuss the subject (10).

There was a significant relation between the student's final score and one's evaluation of the faculty. Ghanbari's study also confirmed this result (15), while Amini-Neek argued that "a stern instructor is disliked by the students" (16), the present study showed that faculty member's strictness has an impact on his/her score in evaluation. The students become familiar with the faculty member and the level of his/her strictness during the semester and this can affect their judgment about the instructor. This difference

could possibly be due to the fact that Amini-Neek considered student's final score as the criterion of the instructor's strictness, while the criterion in our study was the student's overall opinion about the issue. The study of Sharifi and Jourabchi showed a statistically significant difference between the opinions of students at the beginning and the end of a semester. This means that the faculty was able to influence the student's opinion during the semester (17). In addition, Motlagh et al. revealed in their study that 54.3% of faculty members believed that faculty evaluation by the students blemishes the student-teacher relationship (3).

In general, the educational performance of faculty members was rated "good", which requires some consideration, given the effect of the above-mentioned factors. According to Haji-Aghakhani the majority of faculty members and students considered the faculty member's expertise on the subject as the most important measure in being known as a "good instructor" (8).

The effect of various factors on the opinions of students as evaluators reflects the necessity of more caution and attention in making conclusion about the instruction quality. In this regard, Neekbakht and Parsa-Yekta argued that there are some disadvantages in faculty evaluation by students including malformed and incomplete evaluation forms, inappropriate implementation, lack of simultaneous complementary evaluation, lack of validity and reliability in the evaluation instrument and one-sided emphasize on student's role (18).

References

1. Metalfe DH, Marta M. Student perception of a good and bad teaching. Med Educ 1995;26 195-7.
2. Seif AA. How much can we trust the students' evaluation of the teachers? Psychiatry Research 1370;1-2. [Farsi]
3. Motlagh ME, Shakournia A, Malayeri A. Assessment of the faculty members' opinion about faculty evaluation in Ahvaz University of Medical Sciences. Journal of Medical School, suppl for the fourth national conference on medical education. 2000; 57. [Farsi]
4. Freiberg HJT, Waxmanh E. Alternative feedback approach for improving students, teachers and classroom instruction. Journal of Teacher Educ. University of Dayton, Ohio (undated).
5. Sanei N. Faculty evaluation by students. Journal of education sciences school, Isfahan University. 1986;4:56-7. [Farsi]
6. Seif AA. Methods of educational measurement and evaluation. 5th edition, Tehran, 2000. [Farsi]
7. Mazloumi S. The characteristics of a good teacher in the viewpoint of students in Yazd University of medical sciences. Scientific Journal of Yazd University of Medical Sciences 2000; 8(2):105-6. [Farsi]
8. Haji-Aghakhani S. Comparison of the opinions of instructors and students about the criteria of a good faculty. Journal of school of medicine, Tehran University of Medical Sciences 2000:25. [Farsi]
9. Cuthrie ER. The evaluation of teaching: A progress report of educational research. Med Educ 1971;5(4):511-38.
10. Min Q, Baozhis F. Factors affecting students' classroom teaching evaluation. Teaching and Learning in Medicine 1998;10(1):12-5.
11. Esmaili S. Relation between faculty mem- bers' social reputation and student's eva- luation of their educational activities. 1996. [Thesis] [Farsi]
12. Tavakol M, Rahimi M, Torabi S. Chatacteristics of a good teacher from the viewpoint of students. Research in Medical Sciences. 1998:3. [Farsi]
13. Shakournia A, Mozafari A, Motlagh MA. Faculty's opinion about faculty evaluation by students in Ahvaz University of Medical Sciences. Journal of Medical School, suppl for the fourth national conference on medical education 2000:41. [Farsi]
14. Iranfar S. Azizi F, Valaee N. The communication skills of faculty members of Kermanshah University of Medical Sciences and its role in their evaluation by students. Behboud 2000;4(2):1-8. [Farsi]
15. Ghanbari B, Najafi M, Sameie-Nasab MR. Is there any connection between students' evaluation of faculty members and their final score. Journal of Isfahan school of medicine, 2000:21. [Farsi]
16. Amini-Neek S, Roohi L, Hosseinpour E. Does faculty's fastidiousness have an impact on student's opinion? Journal of Bushehr University of Medical Sciences 2000. [Farsi]
17. Sharifi M, Jourabchi Z. Assessment of faculty's influence on student's evaluation of the faculty and class at the beginning and the end of semester. Journal of Tehran school of medicine, Tehran University of Medical Sciences 2000. [Farsi]
18. Nosrat-Abadi AN, Parsa-Yekta Z. Considerations on faculty evaluation in Tehran University of Medical Sciences. Journal of Tehran school of medicine 2000:72-3. [Farsi]