The effect of contextual factors on results of teaching evaluation in College of Medicine, Tehran University of Medical Sciences (2003)

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ABSTRACT

Background: *The use of students rating in order to improve faculty teaching has increased during last 25 years, and some universities rate all faculties teaching by students.*
Purpose: *To study the influence of some instructor contextual variables in evaluating faculty teaching such as, gender, age, rank, teaching experience and status of employment of faculty.*
Methods: *The available data from evaluation of 3 semesters (2001, 2002, and 2003) for 91 faculty members of medical basic sciences were analyzed as the dependent variables, the instrument for this study was self administered Likert's type questionnaire which administered in the last session of teaching. The effect of variable like gender, rank, teaching experiences, employment status are examined on evaluation score of faculty .The statistical t-test, Leven's and Pearson correlation were used to analyses the data.*
Results: *Of all participant 67% were men. 5.6%of them aged less than 35, 52.2% of subjects were between 35-50years old and 42.2%were older than 50. Of all faculties 16.6% were full professor, 23.4% associate and 56%were assistant professor.4% of the faculty were instructor. There was no statistical significant association between the mean score and variances of evaluation scores*
Conclusion: *The finding of this study showed there were no statistically differences between the dependent and independents variables. However the weak negative correlation was found between age and teaching experience. It means young and less experienced faculty gets better score in student rating*
KEYWORDS: FACULTY EVALUATION, STUDENT'S SURVEY

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Introduction

Over the past 25 years the use of students rating of faculty teaching has increased steadily. Most large universities in the developed country report 100 percent institutional participation in the collection of students rating .For example Indiana university of Bloomington Evaluation Services and Testing reports that Science 1993-1994 academic year processed 133,000,Multi-OP student rating sheets (1).
In most cases the purpose of the students rating are to provide information that can be used by the faculty to improve their courses and their teaching and by the college or university administrators to make personnel and program decisions and also in faculty promotions.

The reaction of faculty is different and some agreement or disagreements may resulted form students evaluating teaching effectiveness. However, research tend to support the validity and reliability and usefulness of student rating for the purpose of teaching effectiveness but still as the Greenwald (1997) in a comprehension study shows the number of study that approved the validity and reliability of instruments are more than the study that did not approved the validity and reliability of students rating. How ever accepting the validity and reliability of students rating it is not equal to accepting the reliability and validity of instrument, some teachers mentioned even if we accept the validity and reliability of instrument, still there are some doubt about the students rating (2).
The researcher believes that student rating of faculty teaching, peer evaluation, administrative evaluation are the important source for evaluating teaching and also for decisions making about the course or curriculum. There are many different methods and instruments for evaluating of teaching such as observation, students achievement and students performance (3, 4, 5, 6).
The recent research has explored the influence of a number of variables on rating, which makes the evaluation seems complicate. According to above

statement the instrument should be designed in such away that could assess the variables property. The researcher belives that unfortunately the most of the instruments are not able to assess the all dimension faculty teaching. They only evaluate the important ones from the designer view; beside that faculty often have questions about the factors apart from teaching performance that might influence the students rating. Some research such as Fledman studied the effect of number of students (class size), Freeman subject of teaching and difficulty level of course (9,10,11).

TABLE 1. Distribution of student's rating mean score of faculty's teaching by the faculty rank.

Rank	N (Number)	Mean Score	StD	Standard Error	95% confidence Interval	
					Highest Score	Lowest Score
Full professor	15	72/5	6/6	1/7	76/2	68/8
Associate pro	22	73/06	5/3	1/1	75/4	70/7
Assistant pro	51	71/2	8/6	½	73/6	68/8
Instructor	3	76/10	2/8	1/6	83	69
Total	91	72/06	7/5	0/7	73/6	70/5

TABLE 2. Distribution of descriptive statistics according to the gender.

Gender	N Number	Mean Score	StD	Standard error
Male	61	71/9	7/2	0/9
Female	30	72/2	8/2	1/05
Total	91	72/05	7/7	0/97

Table 3. Distribution of descriptive statistics according to the age

Age	N Number	Mean Score	StD	Standard error	95% confidence interval		Lowest Number	Highest Number
					Highest Score	Lowest Score		
Less than 35	5	76/3	4/7	2/1	70/4	82/2	71/4	84/13
35-50	48	72/1	7/3	1/05	69/9	74/2	55/6	91/80
More than 50	38	71/4	8/-	½	68/8	74/08	56/1	89/44
Total	91	72/-	7/5	0/78	70/5	73/6	55/6	91/8

TABLE4. Distribution of descriptive statistics according to teaching experience

Teaching Experience	N Number	Mean Score	StD	Standard error	95% confidence interval		Lowest Number	Highest Number
					Lowest Score	Highest Score		
Less than 10 years	33	72/8	7/2	1/26	70/3	75/4	59/6	91/8
10-20 years	37	72/2	7/4	1/2	69/7	74/7	55/6	89/2
More than20 years	21	70/4	8/1	1/7	66/7	74/21	56/7	89/4
Total	91	72/-	7/5	0/78	70/5	73/6	55/6	91/8

TABLE 5. Distribution of descriptive statistics according to employment status.

Employment Status	N Number	Mean Score	StD	Standard error	95% confidence Interval		Lowest Number	Highest Number
					Lowest Score	Highest Score		
Tenure	63	71/4	7/4	0/94	69	73/3	55/6	89/4
Conditional Tenure	11	71/5	5/6	1/11	67	75/3	61/1	85/2
Mon tenure	17	74/5	8/5	2/08	70	78/9	59/7	91/8
Total	91	72/6	7/5	0/78	70/5	73/6	55/63	91/8

Time of administration of data collection, beside the age of instructor, years of teaching experience, gender related to students rating.

This study have been designed in order to study the influence of some instructor contextual variables in evaluating faculty teaching such as, gender, age, rank, teaching experience and status of employment of faculty.

Methods and material

The available data from evaluation of 3 semester (2001,2002,2003) for 91 faculty members of medical basic sciences were analyzed as the dependent variables ,the instrument for this study was self administered Likert's type questionnaire which administered in the last section of teaching. This instrument consists of questions that measure:

1-Teaching skills

2-Class management

3-Social and interpersonal communication

The instrument is designed in educational development center and it has been approved by faculties and departments' heads committees. Each statements of questionnaire rates from 1-4.score four shows the highest score and one the lowest score of satisfactions. The Satisfaction Index was

used to compare the evaluation score of each faculty, and it has been calculated by the following formula:

$SI=\frac{100+100*\frac{1}{N}}{2}$

SI=satisfaction index

N=number of rating scale (based on Likert's scale)

VARIABLE

Dependent variables:

1- Evaluation score

Independent variable:

1) Gender
2) Age
3) Rank (faculty's ranking)
4) Teaching experiences
5) Employment status.

Statistical t-test was used to compare the means and leven test were used to compare the variances with two options and ANOVA test for variance with multiple options. The Pearson correlations were used to show the correlation between variables.

Results

The results of this study show 67% of men and 33%of woman were evaluated by students 5.6%of them aged less than 35, 52.2% of subjects were aged 35-50 and 42.2%more than 50. 16.6%of faculties were full professor, 23.4% associate and 56%were assistant professor.4% of the faculty were instructor.

37% of faculty had less than 10 year of experiences, 4% were (10-20) and 23% more than 20 years of experiences. 70% of faculties were tenure, 12%are candidate for tenure track positions and 18% were not tenure track. The analyzing of data (by t-test and Leven's test) have been showed that there were no statistical significant between the mean score and variances of evaluation scores. The ANOVA statistical test shows that there were no statistical significant between age teaching experiences and score of evaluation. However the weak negative correlation have been found between the two variables .It means that by increasing of the age the evaluation score decreased and also the teaching experience do not increase evaluation score.

Discussion

The finding of this study showed that there were no statistical significant differences between gender, age, rank, (faculty's ranking), teaching experiences, employment status and evaluation score.

The weak negative correlations were found between age and teaching experiences. This finding supports the 28 other studies were reported by Fledman and also negative weak correlation between age and teaching experience. (r=- 0.2) in compare with this study (r=- 0.1).

It seems some other factors many influence the student rating such as external factors outside the organizations .We suggest these factors to include in future studding. The limited of data as the limitation of this study should be noticed. Looking at the previous study shows that two different types of variables influences teaching evaluation: some of these related to the instructors such as teaching methods, class management, knowledge and personality and some related to the input of the curriculum such as class size, time of administering the data collection, level of course and type of course (9)

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