مطالعه: تأثیر تغییرات ایوان‌های دانشجویی در فعالیت‌های دانشجویی در یکی از دانشگاه‌های علوم پزشکی ایران

نتایج: تغییرات آیین‌نامه، افزایش سطح فعالیت‌های دانشجویی و بهبود ارزش‌های کلیه اداری و اجتماعی و ارزش‌های دانشجویی در یکی از دانشگاه‌های علوم پزشکی ایران می‌تواند رقابت‌پذیری‌های این حوزه را افزایش دهد.

کلمات کلیدی: تغییرات آیین‌نامه، افزایش سطح فعالیت‌های دانشجویی، بهبود ارزش‌های کلیه اداری و اجتماعی و ارزش‌های دانشجویی.

کلیدی‌ها: تغییرات آیین‌نامه، تغییرات آیین‌نامه، تغییرات آیین‌نامه.

مطالعه‌های‌مربوطه:

مطالعه‌های مربوط به تغییرات آیین‌نامه در فعالیت‌های دانشجویی در یکی از دانشگاه‌های علوم پزشکی ایران را بررسی می‌کند. نتایج: تغییرات آیین‌نامه در فعالیت‌های دانشجویی و بهبود ارزش‌های کلیه اداری و اجتماعی و ارزش‌های دانشجویی می‌تواند رقابت‌پذیری‌های این حوزه را افزایش دهد.

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INTRODUCTION
Scholarship, in its modern concept, is presented by Ernest L. Boyer in the book "Scholarship Reconsidered: Priorities of the Professoriate" published in 1990 (1). Scholarship of teaching, as an aspect of academic life, refers to communications of faculty members and promoting and sharing the practice of teaching. This concept is reflected in old literature. For example, the principles of scholarship are expressed in the poets of Ferdowsi (940-1020) in Iran (2). Hansen and Roberts believe that scholarship is demonstrated when knowledge is advanced or transformed by application of one’s intellect in an informed disciplined and creative manner, assessing the results by peer review and public (3).
In the second half of the twentieth century, academic communities were pushed toward research. Although the primary mission of universities was education; promotion and rewarding was mainly based on research (1). To some extent, this was due to inability to objectively evaluate educational activities (4-6). Definition of scholarship criteria by Charles Glassic in the book "scholarship assessed" in 1997 has facilitated this evaluation (7). This modern concept of teaching is widely used for the evaluation of the faculty members (8-16).
In Iran, evaluation of educational activities of faculty members through scholarship assessment has begun since 2009 in improving the regulations of all medical universities (17). Since then, the policies regarding the minimum obligatory scholarship score required for promotion have changed dramatically. In the year 2009, at least 3 scores were required for promotion. In 2010, achieving scholarship scores was optional. In 2011, faculty members were obliged to have at least 3 scores for promotion; while some activities were added as equivalents to scholarship to facilitate getting the required scores (18). In 2012, faculty members were in a hurry to present their promotion file before the declaration of the new revision of the "Promotion Regulation" because it was stricter in some aspects (19).
The changes of policies by the Ministry of Health and Medical Education had great impacts on the quantity and quality of the scholarship activities of faculty members. The effects of changes in policies on the activities of faculty members of Mashhad University of Medical Sciences (MUMS) are evaluated in this study.

METHODS
The files of scholarship of teaching of the faculty members promoted from 2009 to 2012 in Mashhad University of Medical Sciences were evaluated with the permission of Education Development Center, Mashhad University of Medical Sciences (project code: 910703). These files were evaluated regarding the total scores obtained from scholarship activities and the scores obtained from: preparing and implementation of lesson and course plans, implementation of new educational methods, electronic learning contents, and new educational assessment methods. The degree of promotion (from assistant professor to associate professor or from associate professor to professor) and the faculty (medicine, dentistry, pharmacy, nursing and midwifery, paramedical sciences and health) were determined. Data was collected in checklists and privacy issues respected. The total number of faculty members in different years and in different faculties was determined. Analysis was done with SPSS package of statistics version 11.5.

RESULTS
During the period of study, 127 faculty members were promoted. The mean score of scholarship of teaching achieved by faculty members in total was 3.70 ±1.307 (min= 0.9, max=9.14). The highest mean score was the one 2011 and the lowest was in 2010 (fig. 1). There is significant difference between the mean score of faculty members in various periods analyzed by analysis of variance test (f=19.345, p<0.001).

Figure 1. The mean total score of the promoted faculty members in various periods

Figure 2. The percent of faculty members promoted in various periods
Effect of Scholarship Policy Changes

The mean percent score of faculty members obtained from preparing and implementation of lesson and course plans, implementation of new educational methods, and new educational assessment methods and the mean number of electronic learning contents prepared by faculty members in general and in various periods are presented in table 1. The percent of faculty members who got a promotion in every year was significantly different (fig. 2). In the Medicine faculty, this percent was significantly different in various periods. In other faculties, it was not significantly different or it was not assessable due to the little number of promoted members (fig. 3). In the total period from 2009 to 2012, the percent of promoted members was the most in the Health faculty (fig. 4).

The mean percent score of faculty members obtained from various items of scholarship and the mean number of electronic learning contents prepared by faculty members in various faculties are presented in table 2. Of 127 promoted faculty members, 98 (77%) were from assistant professor to associate professor and 29 (23%) from associate professor to professor. The ratio of promoted assistant professors to promoted associate professors was 4.6 in 2009, 1.8 in 2010, 4.4 in 2011, 2.4 in 2012, and 3.4 in the whole study period. This ratio was not significantly different in various years (chi-square = 2.959, p = 0.4). The mean percent score of faculty members obtained from various items of scholarship and the mean number of electronic learning contents prepared by faculty members in both groups are presented in table 3.

**DISCUSSION**

Changes of evaluation policies have great impacts on the function the evaluated population. The results of this study clearly demonstrate the significant effect of changes of promotion regulation of faculty members in Mashhad University of Medical Sciences on their scholarship activities. The mean total score of scholarship of promoted faculty members in the years in which obtaining at least 3 scores was obligatory are significantly more than the mean total score in 2010 in which achieving scholarship scores was optional.

| Table 1. The score from varied scholarship items and the mean number of electronic learning contents prepared in various periods |
|--------------------------|-----|-----|-----|-----|-----|-----|
| The scholarship score    | Year 2009 | Year 2010 | Year 2011 | Year 2012 | Average | P value |
| Score for preparing and implementation of lesson and course plans; mean(SD) | 49.6 (13.79) | 71.8 (17.33) | 36.8 (17.64) | 40.8 (16.41) | 45.17 (16.41) | <0.001 |
| Mean percent score for implementation of new educational methods; mean(SD) | 19.35 (16.53) | 21.3 (25.89) | 44.5 (28.76) | 55.0 (20.57) | 34.4 (28.76) | <0.001 |
| Mean percent score for new educational assessment methods; mean(SD) | 15.4 (14.55) | 12.4 (20.76) | 13.2 (13.52) | 6.2 (9.20) | 12.1 (14.20) | 0.052 |
| Mean Number of electronic learning contents; mean(SD) | 0.7 (1.07) | 0.4 (0.63) | 2.6 (2.67) | 2.1 (2.21) | 1.6 (2.17) | <0.001 |

![Figure 3. The percent of faculty members promoted in various faculties in various periods](image1)

![Figure 4. The percent of faculty members promoted in various faculties from 2009 to 2012](image2)
This indicates that high quality activities of faculty members is increasing over time, too. The mean score of faculty members in Nursing and Midwifery faculties were significantly more than other faculties, followed by Paramedical sciences and Health faculties. This finding indicates great potentials for future scholarship activities in these faculties and the need for education in other faculties (i.e., Medicine, Dentistry, and Pharmacy).

Evaluation, rewarding, and promotion of faculty members should be based on their core mission of education. Inability to critically assess educational activities of faculty members has been the main limitation of this viewpoint. Scholarship regulation was one step toward making educational activities assessable. This study suggests that a minimum obligatory score of scholarship activities required for the promotion of faculty members is effective in progress of scholarship of teaching and learning and development of education.

Education of faculty members, too, had a great impact on the quality and quantity of scholarship activities. With holding multiple workshops, the mean total score of scholarship was increased from 3.34 in 2009 to 4.41 in 2011; while policies for promotion in the scholarship regulation were the same in these periods. The quality of activities are considered as the number of electronic learning contents and the mean percent of acquired scores from implementation of new methods of education and student assessment. The mean number of electronic learning contents, as an indicator of quality of scholarship activities, has increased from 2009 to 2011. The mean percent of acquired scores from new methods of educations is increased over time, too.

This study suggests that changes of policies had deep impacts on the quality of scholarship activities, too. The mean percent of acquired score from lesson plan and course plan (as low quality activities) was significantly high in 2010 while the total score was very low in this period. This indicates that high quality activities of faculty members were significantly decreased in this period that obtaining scholarship score was optional. The mean number of promoted faculty members varied and did not follow any rules regarding changes in scholarship policies. This parameter is under the influence of multiple factors that cannot be addressed in this study.

### Table 2. The score from varied scholarship items and the mean number of electronic learning contents prepared in various faculties

<table>
<thead>
<tr>
<th>The item of obtaining scholarship score</th>
<th>Medicine</th>
<th>Dentistry</th>
<th>Pharmacy</th>
<th>Nursing and Midwifery</th>
<th>Paramedical Sciences</th>
<th>Health</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean total scholarship score; mean(SD)</td>
<td>3.5 (0.95)</td>
<td>3.8 (1.73)</td>
<td>3.6 (1.26)</td>
<td>7.86 (0.57)</td>
<td>5.8 (0.57)</td>
<td>4.4 (1.14)</td>
<td>0.001</td>
</tr>
<tr>
<td>Mean percent score from preparing and implementation of lesson and course plans; mean(SD)</td>
<td>45.5 (17.99)</td>
<td>42.1 (21.02)</td>
<td>55.9 (20.02)</td>
<td>25.4 (3.44)</td>
<td>35.0 (3.44)</td>
<td>47.4 (10.20)</td>
<td>0.323</td>
</tr>
<tr>
<td>Mean percent score from implementation of new educational methods; mean(SD)</td>
<td>37.8 (28.14)</td>
<td>31.4 (23.44)</td>
<td>27.0 (13.03)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>37.6 (20.18)</td>
<td>0.165</td>
</tr>
<tr>
<td>Mean percent score from new educational assessment methods; mean(SD)</td>
<td>12.7 (15.05)</td>
<td>12.5 (14.04)</td>
<td>9.0 (13.28)</td>
<td>5.5 (8.60)</td>
<td>12.6 (8.60)</td>
<td>6.4 (5.06)</td>
<td>0.897</td>
</tr>
<tr>
<td>Mean Number of electronic learning contents; mean(SD)</td>
<td>1.8 (2.35)</td>
<td>1.7 (1.90)</td>
<td>0.8 (1.03)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>2.0 (3.08)</td>
<td>0.6</td>
</tr>
</tbody>
</table>

### Table 3. The score from varied scholarship items and the mean number of electronic learning contents prepared in promoted assistant professors and promoted associate professors

<table>
<thead>
<tr>
<th>The item of obtaining scholarship score</th>
<th>Assistant professor to associate professor</th>
<th>Associate professor to professor</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean total scholarship score; mean(SD)</td>
<td>3.7 (1.24)</td>
<td>3.7 (1.54)</td>
<td>0.944</td>
</tr>
<tr>
<td>Mean percent score from preparing and implementation of lesson and course plans; mean(SD)</td>
<td>45.7 (18.31)</td>
<td>43.6 (20.81)</td>
<td>0.608</td>
</tr>
<tr>
<td>Mean percent score from implementation of new educational methods; mean(SD)</td>
<td>35.7 (25.69)</td>
<td>30.0 (27.14)</td>
<td>0.307</td>
</tr>
<tr>
<td>Mean percent score from new educational assessment methods; mean(SD)</td>
<td>11.9 (14.41)</td>
<td>12.5 (13.72)</td>
<td>0.856</td>
</tr>
<tr>
<td>Mean Number of electronic learning contents; mean(SD)</td>
<td>1.7 (2.28)</td>
<td>1.4 (1.78)</td>
<td>0.580</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENT

The authors would like to express their gratitude to Education Development Center of Mashhad University of Medical Sciences, Mashhad, Iran for the support and approval of this study.

Conflict of Interest: None.

Approval: Approval was obtained from Research Committee and Education Development Center, Mashhad University of Medical Sciences.

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