

The Effect of Changes of the Scholarship Regulation on Scholarship Activities of the Mashhad University of Medical Sciences Faculties

Background: Since 2009, evaluation of scholarship in teaching activities of faculty members has been considered for their promotion in Iran. Until now, policies regarding the minimum obligatory scholarship score required for promotion have changed dramatically. The effects of changes in policies on the scholarship 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 who got a promotion from 2009 to 2012 are evaluated.

Results: During the period of study, 127 faculty members were promoted. The mean score of scholarship of teaching achieved in total was 3.70 ± 1.307 . It was significantly different among periods in which scholarship policies have changed ($p < 0.001$). The mean percent score obtained from preparing and implementation of lesson and course plans, implementation of new educational methods, and the mean number of electronic learning contents prepared by faculty members were significantly different among these periods, too. The mean percent score obtained from new educational assessment methods was not different significantly.

Discussion: Changes of promotion regulation of faculty members in Mashhad University of Medical Sciences significantly affected the quantity and quality of their scholarship activities. A minimum obligatory score of scholarship activities required for the promotion of faculty members is effective in the progress of scholarship of teaching and learning and development of education.

Keywords: Education, Faculty, Staff Development, Personnel Management

درابه تأثیر تغییرات فی مقررات البحوث علی مستوى فعالیتات اجراء البحوث عند اعضاء الریبه العلمیه فی جامه مشهد للعلوم الطبیه.

التمهید: هناك تقییم مستمر من سنه ۲۰۰۹ فی اداء فعالیتات اجراء البحوث عند اعضاء الریبه العلمیه لإجل رفع المستوى فی ایران. و قد تم رفع المستوى فی هذا المجال بشكل ملحوظ. فی هذه الدراره تم درابه تأثیر التفریرات فی مقررات البحوث علی مستوى فعالیتات اجراء البحوث عند اعضاء الریبه العلمیه فی جامه مشهد للعلوم الطبیه.

الأسلوب: تم تحلیل الملفات الموجوده من عام ۲۰۰۹ حتى ۲۰۱۲.

النتائج: فی فتره هذه الدراره تم ارتفاع ۱۲۷ عضو فی الریبه العلمیه و كان مجموع معدل امتیاز الباحث التعلیمی ۳.۷۰ ± ۱.۳۰۷ و هذا الرقم قد تفریر بشكل ملحوظ بعد تفریر مقررات البحوث ($p < 0.001$) كان هناك تفاوت ملحوظ فی مستوى كسب الإمتیاز وأسلوب طرح الدرس و استخرا م اسالیب حدیثه فی التعلیم. لم یكن هناك اختلاف ذوقیه من هیت المعدل الثبوی فی الأمتیازات المكتسبه فی التعلیم. لم یكن هناك اختلاف ذوقیه من هیت المعدل الثبوی فی الإمتیازات المكتسبه فی الاسالیب الحدیثه التعلیمیه.

الإستنتاج: كان هناك تأثیر واضح علی المستوى الكفی و الكمی فی فعالیتات اجراء البحوث عند الریبه العلمیه و تفریر المقررات و إستعمال حدافل امتیاز اجباری كان له تأثیر كبرفی مجال النشاط العملی فی مجال الأبحاث.

الكلمات الرئیسیه: التعلیم، الكلیه، ارتفاع الریبه العلمیه، الإدارة المؤسسیه.

مشهد یونیورسٹی آف میڈیکل سائنس کی اکیڈمیک کونسل کے ارکان کی علمی تحقیقات پر تحقیقاتی دستور العمل میں تبدیلی کے مثبت اثرات

بیک گراؤنڈ: دویزار نو سے ایران میں یونیورسٹی کی اکیڈمیک کونسلوں کے ارکان کی علمی صلاحیتوں میں ارتقا ان کی ترقی کے لئے ضروری قرار دیا گیا ہے۔ منصبی ترقی کے لئے کم سے کم نمبروں کے بارے میں پالیسیوں میں کافی تبدیلیاں آئی ہیں۔ اس تحقیق میں مشهد یونیورسٹی آف میڈیکل سائنس کی اکیڈمیک کونسلوں کے ارکان کی تحقیقاتی سرگرمیوں پر ان تبدیلیوں کا جائزہ لیا گیا ہے۔

روش: دویزار نو سے دویزار بارہ تک اکیڈمیک کونسل کے اراکین کی سرگرمیوں کا جائزہ لیا گیا۔

نتیجے: تحقیق کے تین برسوں میں اکیڈمیک کونسل کے ایک سو ستائیس اراکین کو ترقی دی گئی۔ یہ تعداد اس زمانے سے جب سے دستور العمل میں تبدیلی کی گئی تھی قابل توجہ ہے۔ ان تین برسوں میں دوس کی تیاری، ٹرمن میں نصاب کی تیاری، تعلیم کی نئی روشوں سے استفادہ کرنا، نیز انٹرنیٹ سے تیار شدہ تعلیمی مواد بھی کافی الگ اور قابل توجہ تھا۔

سفرار: تحقیقات کے دستور العمل میں تبدیلی لانے سے اکیڈمیک کونسل کے ارکان کی تحقیقاتی سرگرمیوں پر کافی مثبت اثر پڑا ہے۔ کم سے کم لازمی نمبر کی پالیسی سے بھی جو اکیڈمیک کونسل کے اراکین کی ترقی کے لئے ضروری قرار دیا گیا تھا تعلیمی، تدریسی اور تحقیقاتی سرگرمیوں کے لئے مفید رہا ہے۔

کلیدی الفاظ: اکیڈمیک کونسل، ترقی، تحقیقات۔

Arash Beiraghi-Toosi^{1,2},
Toktam Bokharaeian²,
Nazila Yal^{2*}

¹ Endoscopic & Minimally Invasive Surgery Research Center, Ghaem Hospital, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran.

² Education Development Center, Mashhad University of Medical Sciences, Mashhad, Iran.

* Education Development Center, Mashhad University of Medical Sciences, Daneshgah Street, Mashhad, Iran.

Tel: +98 511 842 0305
Fax: +98 511 842 0305
Email:
drnazilayal@yahoo.com

تأثیر تغییرات آیین نامه دانش پژوهی بر فعالیت های دانش پژوهی اعضای هیات علمی دانشگاه علوم پزشکی مشهد

زمینه: از سال ۲۰۰۹، ارزیابی فعالیت‌های دانش پژوهی اعضای هیات علمی در ارتقای آنها در ایران در نظر گرفته شده است. تا کنون، سیاست‌ها درباره حداقل امتیاز اجباری دانش پژوهی لازم برای ارتقا تغییرات زیادی کرده است. در این مطالعه، تأثیرات تغییرات سیاست‌ها بر فعالیت‌های دانش پژوهی اعضای هیات علمی دانشگاه علوم پزشکی مشهد (MUMS) بررسی شده است.

روش: پرونده های دانش پژوهی آموزشی ارتقا یافته از ۲۰۰۹ تا ۲۰۱۲ بررسی شده اند.

نتایج: در مدت زمان مورد مطالعه، ۱۲۷ عضو هیات علمی ارتقا یافته اند. متوسط امتیاز دانش پژوهی آموزشی کسب شده در کل $۳/۷۰ \pm ۱/۳۰۷$ بود. این میانگین در دوره هایی که سیاست‌های دانش پژوهی تغییر کرده است بطور قابل توجهی متفاوت بود ($p < 0.001$). متوسط درصد امتیاز کسب شده از طراحی و اجرای طرح درس و طرح دوره ها، به کارگیری روش‌های نوین آموزشی و متوسط تعداد محتواهای آموزش مجازی تهیه شده توسط اعضای هیات علمی نیز در این دوره ها بطور قابل توجهی متفاوت بودند. متوسط درصد امتیاز کسب شده از روش‌های نوین ارزشیابی تفاوت قابل توجهی نداشت.

بحث: تغییرات آیین نامه ارتقای اعضای هیات علمی در دانشگاه علوم پزشکی مشهد بر کمیت و کیفیت فعالیت‌های دانش پژوهی آنان تأثیر گذار بوده است. حداقل امتیاز اجباری از فعالیت‌های دانش پژوهی لازم برای ارتقای اعضای هیات علمی در پیشرفت دانش پژوهی آموزشی و توسعه آموزش موثر بوده است.

واژگان کلیدی: آموزش، دانشکده، ارتقا هیئت علمی، مدیریت سازمانی

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 ($f = 19.345$, $p < 0.001$).

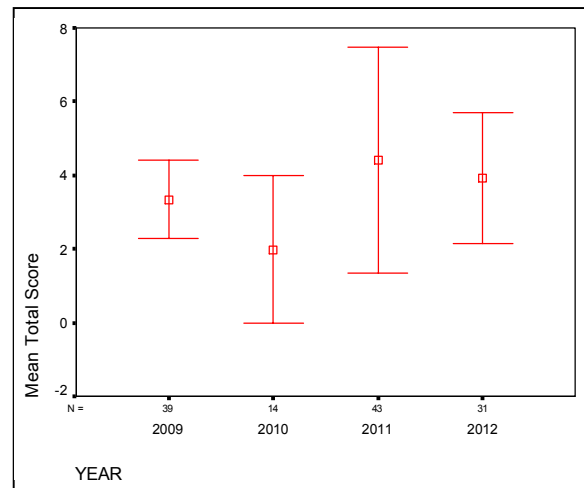


Figure 1. The mean total score of the promoted faculty members in various periods

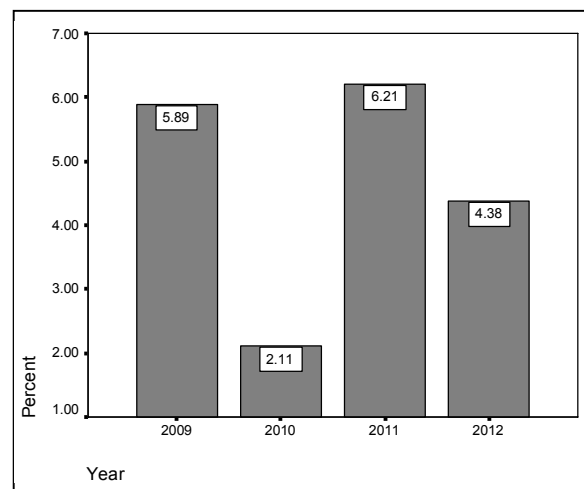


Figure 2. The percent of faculty members promoted in various periods

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

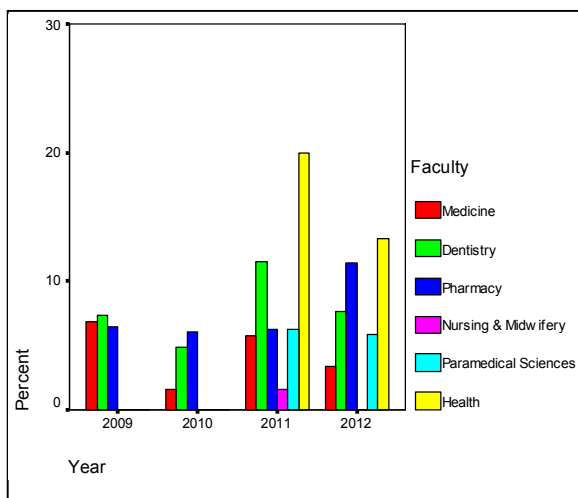


Figure 3. The percent of faculty members promoted in various faculties in various periods

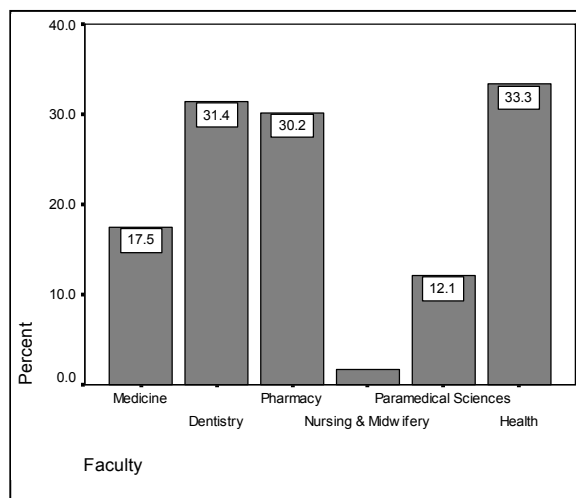


Figure 4. The percent of faculty members promoted in various faculties from 2009 to 2012

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

The item of obtaining scholarship score	Medic-ine	Denti-stry	Phar-macy	Nursing and Mid-wifery	Para-medical sciences	Health	P value
Mean total scholarship score; mean(SD)	3.5 (0.95)	3.8 (1.73)	3.6 (1.26)	7.86	5.8 (0.57)	4.4 (1.14)	0.001
Mean percent score from preparing and implementation of lesson and course plans; mean(SD)	45.5 (17.99)	42.1 (21.02)	55.9 (20.02)	25.4	35.0 (3.44)	47.4 (10.20)	0.323
Mean percent score from implementation of new educational methods; mean(SD)	37.8 (28.14)	31.4 (23.44)	27.0 (13.03)	0	0	37.6 (20.18)	0.165
Mean percent score from new educational assessment methods; mean(SD)	12.7 (15.05)	12.5 (14.04)	9.0 (13.28)	5.5	12.6 (8.60)	6.4 (5.06)	0.897
Mean Number of electronic learning contents; mean(SD)	1.8 (2.35)	1.7 (1.90)	0.8 (1.03)	0	0	2.0 (3.08)	0.6

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

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

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.

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.

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.

REFERENCES

- Boyer EL. Scholarship reconsidered: priorities of the professoriate. 1st ed. USA: The Carnegie Foundation for the Advancement of Teaching; 1990.
- Afshari R. Historic perspective (Ferdowsi); Scholarship of Teaching. FMEJ 2012; 2(3): 3. Hansen PA, Roberts KB. Putting teaching back at the center. Teach Learn Med 1992; 4: 136-9.
- Hansen PA, Roberts KB. Putting teaching back at the center. Teach Learn Med 1992; 4: 136-9.
- Nuthalapaty FS, Casey PM, Cullimore AJ, Dugoff L, Abbott JF, Chuang AW, et al. To the point: A primer on medical education research. Am J Obstet Gynecol 2011; 207(1): 9-13.
- Purcell N, Lloyd-Jones G. Standards for medical educators. Med Educ 2003; 37(2): 149-54.
- Fincher RM, Simpson DE, Mennin SP, Rosenfeld GC, Rothman A, McGrew MC, et al. Scholarship in teaching: An imperative for the 21st century. Acad Med 2000; 75(9): 887-94.
- Glassick CE, Huber MT, Maeroff GI. Scholarship Assessed: Evaluation of the Professionate. The Carnegie Foundation for the Advancement of Teaching. 1st ed. San Francisco: Jossey-Bass; 1997.
- Afshari R, Beiraghi Toosi A, Azizi H. Process of scholarship of teaching has been successful in Mashhad University of Medical Sciences. Future of medical education journal 2012; 2(1): 27-31.
- Glassick CE. Boyer's expanded definitions of scholarship, the standards for assessing scholarship, and the elusiveness of the scholarship of teaching. Acad Med 2000; 75(9): 877-80.
- Ramani S. Twelve tips to promote excellence in medical teaching. Med Teach 2006; 28(1): 19-23.
- Chandran L, Gusic M, Baldwin C, Turner T, Zenni E, Lane JL, et al. Evaluating the performance of medical educators: A novel analysis tool to demonstrate the quality and impact of educational activities. Acad Med 2009; 84(1): 58-66.
- Glassick CE. Reconsidering scholarship. J Public Health Manag Pract 2000; 6(1): 4-9.
- Beattie DS. Expanding the view of scholarship: Introduction. Acad Med 2000; 75(9): 871-6.
- Smesny AL, Williams JS, Brazeau GA, Weber RJ, Matthews HW, Das SK. Barriers to scholarship in dentistry, medicine, nursing, and pharmacy practice faculty. Am J Pharm Educ 2007; 71(5): 91.
- Glanville I, Houde S. The scholarship of teaching: implications for nursing faculty. J Prof Nurs 2004; 20(1): 7-14.
- Becker KL, Dang D, Jordan E, Kub J, Welch A, Smith CA, et al. An evaluation framework for faculty practice. Nurs Outlook 2007; 55(1): 44-54.
- Promotion regulation of faculty; medical universities, higher education and research institutes. Islamic Republic of Iran: Ministry of Health and Medical Education; 2008.
- Equivalents and scoring of scholarship of teaching in promotion regulation. Islamic Republic of Iran: Ministry of Health and Medical Education; 2010.
- Promotion regulation of faculty; medical universities, higher education and research institutes. Islamic Republic of Iran: Ministry of Health and Medical Education; 2012.