# ORIGINAL ARTICLE

### Internal Evaluation of Basic Science Department in Sabzevar University of Medical Sciences in 2010

**Background:** The increased concern for accountability and quality improvement is inducing universities throughout the world to evaluate and control performance. Hence, this study was conducted to assess basic science department of Sabzevar medical school to improve the quality of the department.

**Methods:** This study is a descriptive cross sectional study. We asked faculty members, managers, internal evaluation committee members and medical students questions in different fields .Data was collected by researcher made questionnaires and analyzed by SPSS 15 using the absolute percentage of patients, the standard deviation, and the arithmetic average tests.

**Results:** The best quality was showed by 1 and the worst quality was showed by 5. The best quality was in mission and goals and the score was 1.31.

**Conclusions:** The results showed that the basic science department is favorable, but a strategic program is advised to improve the quality.

**Keywords:** Quality, Internal Evaluation, Basic Science Department, Sabzevar

# ارزیابی درونی گروه علوم پایه دانشکده پزشکی دانشگاه علوم پزشکی سبزوار در سال ۱۳۸۹

**زمینه و هدف:** اغلب نظام های آموزش عالی جهان کوشش هایی را در حوزه ارزیابی و بهبود کیفیت آموزش، پژوهش و عرضه خدمات بالینی در سطح دانشگاه به عمل آورده اند و از ارزیابی درونی به عنوان رویکردی زیر بنایی جهت اشاعه فرهنگ کیفیت استفاده کرده اند. این مطالعه به منظور ارزیابی درونی گروه علوم پایه دانشکده پزشکی سبزوار در جهت ارتقا کیفیت این دانشکده صورت گرفت .

روش: مطالعه حاضر یک مطالعی توصیفی مقطعی است. جامعه مورد مطالعه اعضا هیات علمی گروه علوم پایه, مدیران گروهها، مسوولین دانشکده پزشکی، اعضا کمیته ارزیابی درونی و دانشجویان پزشکی می باشند. ابزار گرداوری داده ها پرسشنامه ای پژوهشگر ساخته بود. داده ها با استفاده از نرم افزار SPSS ویرایش ۱۵ با استفاده از آزمونهای فراوانی مطلق میانگین حسابی انحراف معیار استاندارد و در صد گیری مورد تجزیه و تحلیل قرار گرفت

**یافته ها:** حداکثر مطلوبیت با عدد ۱ و حداقل مطلوبیت با عدد ۵ نشان داده شد. حداکثر مطلوبیت در حوزه ۱ (رسالت ها و اهداف) بود و میانگین نمره کسب شده ۱/۳۱۶ بود. حداقل مطلوبیت در حوزه ۲ (مدیریت اجرایی) بود و میانگین نمره کسب شده ۸/۲بود.

**نتیجه گیری:** نتیجه ارزیابی درونی گروه علوم پایه در وضعیت نسبتا مطلوبی قرار دارد. ولی در جهت ارتقا کیفیت لزوم تدوین برنامه استراتژیک احساس می شود. **واژه های کلیدی:** کیفیت، ارزیابی درونی، گروه علوم پایه، سبزوار

### التقيم الذاتى الداخلى لقسم علوم المقدمات الطبيه فى كليه الطب فى جامعه مبزوار الطبيه خلال عام ٢٠١٠

**الغلفية والهدف:** معظم الانظمة التعليمية فى العالم تبذل الجهود لارتقا، وتحسين كيفية ونوعية التعليم والتقييم والابحاث والخدمات السريرية على مستوى الجامعة حيث تم امتخدام التقييم الداخلى كمصدر رئيسى لتعزيز الثقافة والجودة، هذه الدرامة تهدف الى التقييم الذاتى لمعرفة

مدى ارتقاء قسم العلوم الاسامية فى كلية الطب فى جامعة مبزوار. **الابلوب:** هذه الدرامة هى درامه توصيفيه مقطعية.البيئة التى قامت عليها هذه الدرامة تشهل اعضاء هيئة التدريس لقسم العلوم الاسامية.ومدراء الاقسام.ومسئولين كلية الطب. واعضاء لجنة التقييم الداخلى وطلاب الطب.الاداة التى تم امتخدامها لجمع البيانات هى امتعارة قى كتبها الباحث بنفسه.وبامتخدام برنامج ال SpSs النسخه ال ١٥ تم تحليل المعطيات بعد ما تم تحليلها بامتخدام حساب المتوسط الحسابى. للانحراف البطلق وحساب النسبة المثوبة لها.

النتائج: قد تم الابتعانه برقم ۱ لعرض اقصى فائده ممكنه،واستخدام رقم ٥ لغرض اقل فائده ممكنه،وكان الحد الاقصى للفائده من نصيب النطاق اللاول ((الرمائل واهدافرا)) حيث كان متوسط العلامات المكتسبه١٠٦٦ واقل فائده للنطاق الثانى((الادارة)) وكان متوسط العلامات المكتسبه٢٠٦٩ الامتنتاع: كانت نتيجة التقييم الداخلى لقسم العلوم نتيجة ايجابية نسبيا. ولكن هناك متور لضرورة التخطيط ووضع استرائيجيات من اجل الارتفاء والتقدم الى الامام.

الكلمات الرئيسية: الكيفية،التقييم الداخلى،قسم العلوم الاساسية،سبزوار.

### سبزوار یونیورسٹی آف میڈیل سائنس میں طبی فیکلٹی کی توانائیوں کا جائزہ ۔ یہ تحقیق دوہزار گیارہ میں کی گئی

بیک گراونڈ: دنیا کے اکثر طب کے اعلی تعلیمی اداروں نے تعلیم، تحقیقات اور کلینکل تعلیم کے معیار کا جائزہ لینے کا نظام قائم کیا ہے۔ اور سلف اسسٹمنٹ کو معیار بڑھانے کے لئے ضروری پایا ہے۔ اس تحقیق میں ہم نے سبزوار یونیورسٹی کے طبی شعبے میں تعلیم کا معیار جاننے کی کوشش کی ہے۔

روش: یہ ایک عارضی اور توصیفی تحقیق ہے جس میں اکیڈمیک کونسل کے اراکین، شعبوں کے سربراہوں، طبی فکلئی کے سربراہاں، اور جائزہ کمیٹی کے ارکان کو شامل کیا گیا۔ ان تمام افراد کو تعلیمی معیار سے متعلق سوالنامے دئے گئے جن کا تجزیہ ایس پی ایس سافت ویر سے کیا گیا۔

**نتائج:** زیادہ سے زیادہ نمبر کی علامت ایک کا عدد تھا اور کم سے کم نمبر کی علامت پانچ کا عدد تھا۔ سب سے زیادہ نمبر یونیورسٹی کے اہداف و ذمہ داری کے سوالوں کو ملے۔ اور سب سے کم نمبر مینجمنٹ کو ملے۔

**سفارش:** اس تحقیق سے پتہ چلا ہےکہ سلف اسسٹمنٹ سے مفید نتائج حاصل ہوتے ہیں البتہ یونیورسٹیوں کے معیاروں کو مزید آگےبڑھانے کےلئے اسٹراٹیجیک منصوبہ بندی کی ضرورت ہے۔

**کلیدی الفاظ:** معیار، تعلیمی امور، سبزوار.



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### **INTRODUCTION**

In conditions of science promotion in modern society, organizations will not be able to reach the world advances without the establishment of quality control in the scientific system. With regard to the important role of universities in society they are expected to play the lead role in development. For reaching this goal they should be able to control their functions .This could be done by internal and external evaluation and the first step is internal evaluation of departments (1).

Therefore, in the two recent decades most of higher education organizations have attempted to promote quality of education, research, and clinical services in universities. They have used internal evaluation for this purpose. Internal evaluation is a process of quality review undertaken within an institute for its own evaluation. The goal of internal evaluation is to bring about a rise in the quality of education by improving the quality of the management of educational institutes, provision of flexible feedback on academic performance, and the development of supporting legislation (2).

Organizations such as World Federation for Medical Education (WFME) has suggested basic standards of medical education for quality control .USA was a pioneer in internal evaluation and then most of European countries began to do internal evaluation in the middle of 1980s. In Asia internal and external evaluation began in the last decade. In Iran the first attempt was made in 1996 (3).

The evaluation of education systems of the departments affects the quality of education at the university (4). Therefore the basic science department of Sabzevar medical school has done internal evaluation as a first step to improve quality of education in medical school. As far as basic medical education standards have been sent to all universities by General Medical Council, this internal evaluation was done based on these standards. The results of internal evaluation can be a comparative suitable model for departments in other universities to Identify opportunities and threats. Hence this study was performed in Sabzevar Medical School to identify the strengths and weaknesses of the department.

### METHODS

This study is a cross-sectional study. Study participants were faculty of basic sciences department, department officials, members of the internal evaluation committee, and medical students. The data gathering tool was a researcher-made questionnaire. Study design was according to twelve-step of internal evaluation (5) as follows:

**Step1:** familiarizing faculties with the internal evaluation process

**Step2:** forming internal assessment committee and explaining the process to members of committee

Step 3: Getting the basic standards of medical education

**Step 4**: Determining the evaluation scope and criteria

**Step 5**: Defining and developing appropriate indicators and questions to assess criteria

**Step 6**: Identifying the data required for the analysis of each of the factors

**Step7:** Selecting and editing tools for data collection **Step 8:** Data gathering

Step 9: Data Analysis

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#### Step 10: Preliminary report

**Step 11:** Preparing preliminary report distributed to discuss how to improve the quality of department

**Step 12:** Preparing the final report of the development of group quality for external evaluation

Basic standards of medical education has been given to medical schools by the General Medical Council in seven fields as follow: Field 1: Mission and objectives, field 2: General physician medical curriculum, field 3: Faculty, field 4: Educational and research resources, field 5: Management and administrative, field 6: Students, field7: Evaluation

Each of these fields was considered as an evaluation scope. In each scope we defined criteria and each criterion consisted of different indicators, then we made different questions for the assessment of each indicator, according to the level of the university. For each indicator and related questions we defined five choice answers as completely favorable, favorable, fairly favorable, unfavorable and completely unfavorable .Then we determined who should answer each question. In all fields answers were designed according to the 5-choice Likert model, except in the field of educational and research resources and management which checklist was used. The questionnaire was devised to ensure content validity. For this purpose, the questionnaire was designed in internal evaluation committee and experts of the General Medical Council were asked to amend the questionnaire. After the approval of General Medical Council, the questionnaire was revised again in the Committee. Its reliability was estimated by Cronbach's alpha coefficient. To determine the sample size, sampling census was conducted due to the number of samples (maximum 25 people) according to sample size tables. After distributing the questionnaires and gathering information, all data was analyzed using SPSS software version 15 using the absolute percentage of patients, the standard deviation, and the arithmetic average tests.

# RESULTS

Maximum favorability was shown as 1 and minimum was shown as 5. In scope 1 (mission and goals) the mean score was 1.31. 80% of the mission and goals answers were completely favorable. And 20% of the mission and goals answers were favorable.

In field 2 (curriculum) the average score was 2.80. Response to 10.34% of the questions was option 1 (completely favorable). Response to 10.34% of questions was option 2 (favorable). In 34.48 % of responses, option 3 (fairly favorable) was chosen. Response to 27.60% of questions of general medicine curriculum was option 4 (UN favorable). Response to 13.79% of questions of general medicine curriculum was option 5 (completely unfavorable).

In field 3 (faculty), faculty mean score was 2.3. Response to 22.22% of questions was option 3(fairly favorable). Response to 22.22% of faculty questions was option4 (UN favorable). Response to 44.44% of questions was option 1(completely favorable).

In field 4 (Educational and Research Resources) 24.55% of questions were un favorable (no) and response to 79.54% was yes (favorable).

In field 5 (management and administrative) response to 58.82% of questions was Yes (favorable) and response to

41.18% was No (UN favorable).

In field 6 (Students) the average score was 2.25. Response to 38.46% of questions was option 1(completely favorable). Response to 15.38% of questions was option 2(favorable). Response to 23.07% of questions was Option 3 (fairly favorable). Answer to 7.69% of questions was option4 (UN favorable). Answer to 7.69% of questions was option5 (completely UN favorable).

In field 7 (evaluation) the mean score was 1.94. Response to 55/55% of questions was option 1(completely favorable). Response to 11/11% was option 2(favorable). Response to 22/22% was option 3(fairly favorable). Response to 11/11% of questions was option 4(UN favorable).

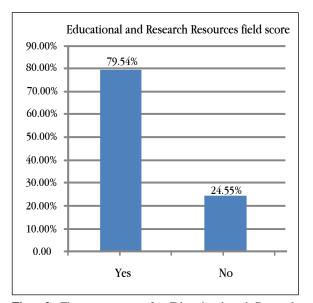
Figures 1 to 3 show the mean score for each field.

# DISCUSSION

The results show that the quality of basic science department is favorable in most fields. But also in some, fairly favorable or un favorable were reported, which will be discussed. This study is one of a few internal evaluations in medical schools in Iran which results have been published, while the results could be used for comparison in other medical schools.

Results show that the best score was in the field of mission and objectives and was favorable, the officials have been preparing Mission and objectives of school according to the approved plans, and the regulations of medical education with cooperation of stakeholders and experts. As Mission and goals of institutes should be reviewed once during each program according to basic standards of medical education, the review of mission recommended maintaining this good status.

The worst score was in curriculum field. The reason was the establishment of the school during recent months of evaluation and the school had not had enough time for curriculum development. As curriculum development is one of pillars of a school, establishment of Curriculum Committee is



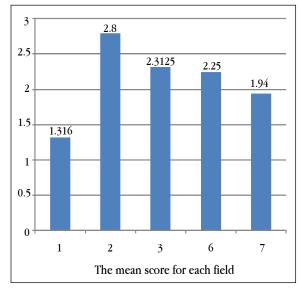
**Figure2.** The mean score for Educational and Research Resources field in Internal evaluation of Sabzevar basic science department in 2010(yes=favorable, no= un favorable).

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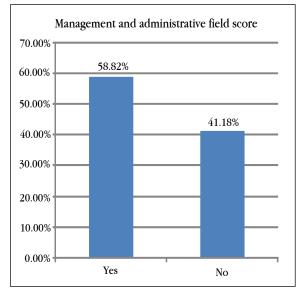
#### recommended.

Staff field was in a relatively good condition. Certainly, creating facilities for faculty recruitment and planning for faculty development, as well as the formulation and implementation of their tasks, can promote this field which needs special attention of people in charge .

Revising check lists to assess the facilities in recent studies (2), we used yes or no answers for this field. Results showed that approximately, 80% of facilities needed, existed in the school. But to implement the optimal training, all the equipments needed, should be provided for students and faculty members. In addition, proper planning is needed for their fund.



**Figure1.** The mean score for fields in Internal evaluation of Sabzevar basic science department in 2010 (the best=1, the worst=5).



**Figure3.** The mean score for management and administrative field in Internal evaluation of Sabzevar basic science department in 2010 (yes=favorable, no= UN vorable).

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In management and administrative field, checklist was used, too. Results show that the situation is worse than others due to the lack of independent funding for medical education and also lack of different departments in the school, which requires further attention.

In student field the condition is good. But for improving the quality, the students' comments are needed, because the lack of students' ideas in planning has reduced score in this field.

In the evaluation field, good score was achieved in internal evaluation, but in student evaluation and teacher assessment the score was not as good as internal evaluation and establishment of evaluation committee advised.

As far as some internal evaluations are based on the institute goals instead of basic standards, they are not completely comparable with our results and we can compare them to some extent .For example in internal evaluation of microbiology and immunology department of Semnan university, completely favorable has been reported (6). In internal evaluation of medical informatics department of Isfahan university, mission and goal field was favorable, student field was un favorable and others were partially favorable (7). In internal evaluation of pediatric department of Jahrom university, management and administrative and Educational and Research Resources fields were partially favorable, and educational goals were favorable (8). In internal evaluation of Vaseie hospital of Sabzevar, based on ranking indicators of educational development Centre, the result was favorable(9). In internal evaluation of pharmacy school of Isfahan, in 2009, the scores were favorable in all seven fields (10). In internal evaluation of basic science of

Gonabad medical school, in 2010, except in theses and conferences which was unfavorable, all other six fields were favorable (11), which is similar to our result. In internal evaluation of Nursing and Midwifery School of Amol, in 2010, the school was totally in rather favorable condition (12).

This study had some limitations: although the value of each indicator is different from this design they had all one score. We recommend future studies care about the value of each indicator. In addition, because each department makes its own indicators and questions, a bias may occur and results may be reported better than reality. The internal evaluation shall be considered confidential, but since the publication of these results can be useful for many departments of other universities, as could be compared with their condition, a formal consent was obtained from the head of the department.

In conclusion, the internal evaluation of basic science department of Sabzevar medical school showed the department was favorable,but strategic program is advised to improve quality.

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**Conflict of interest:** The authors declare no conflict of interest.

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