

A Tool For Managerial Decision Making Aligned with Quality Development

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Abstract

Background and purpose: Internal evaluation has been a growing trend as the first step improvement in higher education specially in medical universities of Iran. However, the results of this time consuming process of internal evaluation seems to be underused. We provide a description of anesthesiology department of Shaheed Beheshti University of Medical Sciences where the results were used to improve the processes and functions of the department.

Methods: A ten-step systematic evaluation methods were used to insure quality improvement after the results were reached.

Results: The findings formed the basis for attempts to improve the shortcomings of the departments

Conclusion: Recommendations for removing the barriers at levels of the university management and Ministry of Health are presented.

Keywords: INTERNAL EVALUATION, QUALITY, ANAESTHESIAOLOGY

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Introduction

Quality development of higher education especially medical education in today's world is a requirement to train qualified specialists in order to improve health and meet health needs of the society.

Public health improvement is generally the main goal of medical education (1,2). Therefore quality of education and research is always one of the demanding concerns of higher education systems. Many countries made considerable attempts to improve higher education quality and reach the goals of higher education systems in the recent two decades (3). Evaluation is systematic data collection and analysis and use of information which leads to judgments or recommendations about quality. Internal evaluation, the first step in

the process of evaluation is the evaluation done by internal staff, whenever staff of a unit systematically under takes evaluation (4).

Today many countries have perceived the importance of evaluation. Evaluation is used as an effective tool in managerial decision making and quality improvement. In its informal meaning, evaluation has a long history in educational systems. The Chinese have used evaluation to recruit people in governmental occupation. However evaluation in its formal meaning doesn't have a long history and began with "Drise" activities in years 1896-1898.

Evaluation has spread widely and has been used to study educational systems indifferent fields. Evaluation has a history of 100 years in USA, while in Iran internal evaluation has a short history of one decade. Internal evaluation has began in departments of internal medicine, obstetrics and gynecology, pediatrics, nutrition and dentistry of Shaheed Beheshti, Tehran and Kerman Medical Universities. Now more than 400 educational departments of medical

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universities are involved in internal evaluation. Internal evaluation is spreading among medical universities. Ministry of Sciences, Research, and Technology has also started internal evaluation in non medical universities in a large extent since 1379. The question is: "Have these evaluations led to reforms and positive changes in educational departments?" Evaluation, data gathering, and becoming a ware about educational programs are necessary, but not sufficient. Strengths and weaknesses, recognized by evaluations should be followed up and the results of evaluation should be used in managerial decision making.

The main drawback of these evaluations, which is obvious to almost all faculty members, who were involved in them, is lack of follow up the results by management at levels of educational departments, medical faculties, medical universities and Ministry of Health. Many universities still don't have an appropriate integrated structure to use the results of evaluations. Internal evaluations have often been conducted by a few number of staff or even one of them, so the management of departments or universities or other staff really aren't aware of them. More over some internal evaluations have been conducted as students' thesis and haven't had any special effects, for instance internal evaluation in the internal medicine department of Kermanshah Medical University and many other departments have been conducted by one of the faculty members. Considering the above mentioned facts, some standards for program evaluation haven't been followed, there fore no special changes have been made to improve quality.

One of the standards for program evaluation is recognizing the stakeholders and making them involved in the evaluation. The related substandard emphasized on direct participation of stakeholders in planning and implementation of the evaluation.

There is no integrated structure for evaluation in faculties and educational departments. Not all stakeholders who must be present to make changes haven't been involved in the evaluations, therefore evaluation in many departments haven't

led to changes to ward quality improvement (5). Considering the fact that many educational departments encounters the challenge of lack of and integrated structure for internal evaluation, solutions to remove this problem have to be made in organizational structure of the universities and educational departments.

Methods

Internal evaluation every educational department should be systematic . Table 1 shows the steps of the evaluation we undertook in the anesthesiology department.

In the first step, experts from the Evaluation and Planning Office of the university briefly introduced internal evaluation to faculty members, then explanatory sessions were held in the educational department to clarify ambiguities. In the second step, internal evaluation committee of the department including representatives of different wards formed. In the presence of the experts from Evaluation and Planning Office of the university, educational goals were developed and clarified. In the fourth step, domains of evaluation which were almost equal to the domains of WFME standards for undergraduate medical education were determined, then for each domain special criteria were determined and approved (table 2). Then optional status for each criterion were determined through holding longitudinal sessions. The criteria and optimal status for each criterion aligned with educational objectives were developed by internal evaluation committee after several sessions considering the view of educational departments in Iran, and WFME, LCME, Australian and Mexican Standards for under graduate medical education.

First a draft of optional status for all criteria were developed by experts in Evaluation and planning office of the university, then it was revised and finalized by the internal evaluation committee after several sessions. In the next step, data collection methods and resources were selected considering educational objectives and optimal status and tools were developed. The tools

Table 1. Steps of internal evaluation

First step	Introducing internal evaluation
Second step	Formation of internal evaluation committee
Third step	Development and clarification of mission and educational goals of the program
Fourth step	Determination of domains for evaluation and criteria for each of them
Fifth step	Definition of the optimal status for each criterion
Sixth step	Determination of methods for data collection and development of tools
Seventh step	Data collection and development of tools
Eight step	Provision of the primary report and discussion about data
Ninth step	Recommendations
Tenth step	Following up the results.

included documents, checklists, observations and questionnaires and the resources comprised of faculty members, residents, graduates and document. Note that all faculty members and residents were included in the sample. The following step was data collection and analysis. Primary report was developed after discussion and recognition of strengths and weaknesses and finding the roots of them.

Results

The Anesthesiology department began to train stakeholders and encourage them to participate in internal evaluation to overcome the first challenge of inadequate participation of stakeholders.

Making changes during the period of internal evaluation is a unique feature of internal evaluation. One change occurred in the anesthesiology department during the internal evaluation was expansion of faculty members'

Table 2. Domains and criteria for evaluation)Hajifathali et al, 1382(

Mission and objectives	<ul style="list-style-type: none"> - statement of mission and objectives - participation in formulation of mission and objectives - following the rules for writhing objectives - awarener of stakeholders about objectives - revision of mission and objectives
Management and organization	<ul style="list-style-type: none"> - process of appointing the department manager and his/her tasks - characteristics of the manager - department independency in planning - plans for faculty members development - directives within the departments - department budget and expenses - plans for appreciating and reprimanding faculty members - especial plan for communications
Curriculum	<ul style="list-style-type: none"> - definitions of educational activities - appropriate educational content for objectives - participation in educational planning - curriculum implementation - teaching methods and lesson plan - basic and clinical sciences integration
Faculty members	<ul style="list-style-type: none"> - composition and distribution of members - educational competencies of members - categorized activities of members - innovations of members - satisfaction with facilities and welfare services
Residents	<ul style="list-style-type: none"> - composition and distribution - relationship with faculty members - participation in planning, implementation and evaluation - academic promotion or regression - awareness of rights and tasks - average time spent of study - research activities
Educational resources	<ul style="list-style-type: none"> - quality, numbers and variety of learning spaces - information technology - educational aids - clinical facilities helpful for education - patient a adequacy)quantity and variety(
Research	<ul style="list-style-type: none"> - individual works and activities of faculty members - strategy and plan for research - research projects - seminars and conferences held by the department - research facilities

knowledge about program evaluation. This was done through holding workshops and sessions within the department and presenting handouts and books about internal evaluation in the first step.

Another change was bringing faculty members to a positive view point about evaluation. Faculty members had had a negative attitude towards previous evaluations, like evaluation of faculty members during their promotion process, and perceived that internal evaluation is similar to them. After being informed of internal evaluation program and during the implementation, their view point changed and they grew more positive. The third change in the program of evaluation was making faculty members involved in education and evaluation, so that 80% of them participated in the program, and also developing a collaborative atmosphere for group working among them, so that more than 15 sessions were held to conduct evaluation and follow up the results. Evaluation helped faculty members to reach a new view about the status of their department. As Kristofferson emphasized in "A Manual of Quality Assurances: Procedures and practices" "internal evaluation itself brings self awareness and insights for faculty members.

Besides the changes in internal evaluation program, after recognitions of strengths and weaknesses, the weaknesses were evaluated and prioritized and a suitable context cases provided to made changes and reforms.

Recommendations were followed up to be operationalized at the department level and some of the weaknesses were remedied. The most important weaknesses was that educational objectives weren't measurable and behavioral. This can be followed up within the internal evaluation committee. Objectives were updated and changed to behavioral ones, approved and finalized by all faculty members. A statement of objectives on its own has no effects. WFME standards for undergraduate medical education emphasizes of making stakeholders aware of them. As lack of informing stakeholders about them was a weaknesses, stakeholders including faculty members, residents and managers were informed about the objectives. Another essential

problem with this department and many other departments is lack of a systematic mechanism to assess knowledge and skills of residents. A logbook was designed considering objectives and distributed among residents to assess them. This logbook can be used to monitor residents' knowledge and skills, recognize the weaknesses in their academic progression and remedy them. The next problem was the problem with approving of research proposals presented by faculty members to the Research Deputy. It occasionally look a long time and finally some of the proposals haven't been approved, therefore the department management developed directives for evaluating and removing the weak points of the proposals presented by faculty members, in order to facilitate the program of proposals evaluation and approval in Educational Deputy and avoid wasting of faculty member's time and money.

Conclusion

Displaying the quality is hard. Quality is perhaps the most essential concept in evaluation. Evaluation requires not only observation and appreciation of quality but also displaying the quality to others with presenting strengths of the program (8).

The weakness recognized by evaluation could be followed up in three level: first at educational department level, second at the level of medical faculty and university, and third at the level of Ministry of Health. Many articles have emphasized on the importance of internal evaluation as a tools to change and remedy the weaknesses (8,13,14)

The process of evaluation doesn't stop at the end of evaluation. The tenth step, following up the results has to be done. In fact many department evaluation stops with presentation of the final report and general recommendations. This might be resulted from several reasons. One probable reason which leads to lack of changes and failing to act to overcome the weaknesses is insufficient participation of stakeholders (faculty members, residents, staff). Many internal evaluations conducted in Iran at a minimal

level of participation of stakeholders end without any changes in educational departments. Changes may happen by making stakeholders involved in evaluation in a large extent and feel that they are the owners of the process. Internal stakeholders are generally the ones who make required changes for continuing improvement. Therefore, participation of all stakeholders in the process of internal evaluation makes an appropriate context for changes to occur. Another cause of fruitlessness of internal evaluation is that no structure or integrated system has been predicted in organizational diagram of the university and the educational departments. Therefore the result couldn't be followed up at higher levels. That's why in many universities upper levels of management aren't aware of the evaluations or haven't perceived the need for evaluation. Lack of evidences of changes aligned with the results of evaluations at the levels of universities or Ministry of Health is approving of this fact.

Many of weaknesses like shortage of resources and facilities, weaknesses in faculty members recruitment, and curriculum need planning at higher levels like universities of medical sciences or Ministry of Health.

Such problems couldn't be followed up in departments, but there is no structure for following up these sorts of problems at higher levels.

The experience of internal evaluation in the anesthesiology department emphasizes on the role and importance of following up the results. It recommends that educational departments' activities and stakeholders should participate in planning, implementation and evaluation of educational programs to improve this process. Evaluation is cost and demanding, therefore if the results of the program aren't operationalized, irreversible harms will be made to the universities and this finality will lead to quality regression. It is recommended that high levels of management specially university management, related council in Ministry of Health think of developing an appropriate structure at different levels and predict what is needed to improve internal evaluation process and provide and administration guaranty to operationalize the results specially to

overcome the weaknesses related to higher management which needs facilities, policy making and gross decision making.

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