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The status of accountable education in the Surgery Department, Tabriz, Iran

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Abstract

Background: Accountability brings transparency and commitment to improve adherence to the mission and upgrade the current system. The medical education system bears a responsibility to be accountable towards the community, which involves examining the fulfillment of the university's goals in this area. Therefore, this study has reviewed the fulfillment of accountable indicators in the study group.

Methods: This descriptive study was carried out in the surgery department at the Tabriz University of Medical Sciences in the teaching hospitals of Imam Reza and Sina. it was done based on accountable education measurement tool that included 10 areas, 25 criteria and their associated markers. The data collection method was based on interviews, observation and review of documents.

Results: The average performance (mean 38.6%) of the surgery department across the ten areas of social accountability in education was at a moderate level. There was no performance recorded in the 2nd and 9th areas and the performance in the 8th and 10th areas was poor. Areas 1, 4, 5, 6, and 7 had a moderate performance and the Area 3 had a fairly good performance average.

Conclusion: The performance of the study group is based on some factors such as the relationship between the Medical Education Development Center and the Medical Education Department and their knowledge of accountability principles and criteria, and the knowledge and application of teaching, assessment, and evaluation methods as well as the knowledge of accountable education.

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Introduction

Accountability is a commitment from decision-making centers, organizations and individuals to be cognizant of their performance. This requires a transparent system of adopted policies and programs, and if such policies are not in the best interests of customers, an explanation is required.[1] To move towards accountable education, actions can be taken at any level of the educational system and in relation to each related subject. Therefore, attention to the prioritization, needs and expectations of the community are fundamental principles which must be considered.[2,3]

Since the service delivery system is directly responsible for supplying, maintaining and promoting community, evolution of a service delivery system should lead to evolution in an educational system.[4] Learning, and the context in which learning takes place, are inseparable.[5] Therefore, an educational system should be available to train the professionals required for the provision of services in the community and in the different areas of the service delivery system.[6]

On the other hand, participation in research related to the provision of services can help clarify the status of access, effectiveness and efficiency of care, accountability of the needs and expectations of individuals and communities, management of the provision of services and a way to allocate resources.[7]

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What is implied by the backgrounds of the medical education system and the health system and related literature is the necessity for attention to the needs and expectations of the community, where social accountability is in line with the mission and the core of medical education. However, considering the extent, the direction, and the speed in which social responsibility is moving, it is necessary that indicators be determined and studied, which is the main purpose of this study.

Materials and Methods

This descriptive study was conducted in the surgery department in the Imam Reza and Sina teaching hospitals at the Tabriz University of Medical Sciences in 2016. The clinical departments of the medical school consist of 21 groups, among which the groups of surgery department as one of the major groups and its important in teaching medical students was selected through purposeful sampling with the recommendation of the university medical education experts.

The accountable education assessment tool includes 10 areas and 25 criteria and indicators related to each criterion. Standard tools used in the study of Jalilian et al,[8] "Compiling accountability indicators in medical school," was used to collect information in this study. In a combined study by Jalilian et al, the areas and criteria for accountability in education were determined and finalized using expert opinion. Accountability indicators were developed using the Delphi method, experts' opinions and finally, use of an expert panel and a focus group discussion.

The questionnaire used by Jalilian et al[8] was specific to the medical school and included 28 criteria and indicators. Considering the aim of this study, which is examining the accountability indicators status in educational departments, the criteria and indicators were re-reviewed and rewritten based on the training department's status.

Education experts present at the meeting included the ones with academic degrees of Ph.D. and Masters of Medical Education, faculty members of medical school such as gastroenterologists, pediatrics, community medicine specialists and pharmacists etc.

Accordingly, the areas, criteria, and indicators of accountability were discussed at a meeting with experts in medical education. After collecting feedback, they were again sent via e-mail to for further refinement; then all suggestions and comments were collected and reviewed in a face-to-face meeting. Ultimately, 25 criteria and related indicators were approved and finalized for implementation.

Reliability was confirmed using Cronbach's alpha. For the overall criteria, Cronbach's alpha was 0.92 and in terms of areas, 0.85. For research purposes, an alpha of 0.7 or higher is considered a good indication of reliability.

The accountable education questionnaire for educational departments includes the relevant areas and criteria (Table 1).

Studying the accountability status in the surgery department was done by experts in the medical education department; exclusion criteria were data and information gathered from any department other than the selected department and separating and classifying the information of the target groups.

Information about the selected educational department, including its strategic plan, on the website of the Medical University of Medical Sciences was studied. Then the checklist for the "community needs forecast" area and the criterion of "inclusion of the core values and criteria for accountability, mission and goals in the strategic plan of the institution, such as justice, quality, etc." was completed.

Interviews were conducted with the head of the department and students to gather further information.

The document review included the strategic plan of the surgery department, the curriculum, the minutes, the reports and other evidence: the method of data collection and documents were different, which made the documentation of different areas and criteria be collected with a lower degree of bias and more comprehensive.

In order to calculate the scores of the criteria and areas, the related markers were first averaged and to provide a better and more tangible criterion score, the average was normalized in the range of 0-100 (Table 2).

In the present study, the final tool for the selected department in this project was completed and the data collected was analyzed using SPSS 21. Cronbach's alpha was used to assess reliability. Frequencies and means were calculated for descriptive statistics. Statistical tests of significance were not used considering the nature of the study. Descriptive statistics index of the variable, frequency and percentage were calculated and reported.

Table 1. List of Areas

Area
A1 - Predicting society's needs
A2 - Cooperation and interaction with health system
A3 - Training and providing efficient human forces
A4 - Achievement-based education
A5 - Accountable and effective management
A6 - Standards
A7 - Quality improvement
A8 - Essential mechanism for validation (Evaluation)
A9 - Global principles and local requirements-
A10 - Society's role

Table 2. The Ranges of the Criteria and Areas for Calculating their Scores

Very poor	Moderate	Good	Excellent
0-25	25-50	50-75	>75

Results and Discussion

Various studies suggest that current education at the Tabriz University of Medical Sciences could benefit from a review.[9] In other words, educational evaluations can lead to a review of current affairs and contribute to a more detailed road map for the future. Many organizations and experts also require serious reform in medical education.[10,11] Due to the fast pace of change in the health system and community needs, it is crucial that physicians be trained to deal with the problems of the current century.[12]

A strategy is a comprehensive plan for an institution that shows how it manages its mission and achieves its goals. Therefore, the present study examined the strategy of the study group regarding the accountability criteria. Jalilian et al[8] referred to the criteria of equity, quality, relevancy, effectiveness, professional ethics and community participation as six criteria for social accountability in educational institutions. Some other sources refer only to criteria of justice, quality, proportionality, and effectiveness as social accountable criteria at the medical school.[13]

This study examined the criterion of "inclusion of the values and criteria of accountability in the mission and goals of the strategic plan" in the surgery department of the Tabriz University of Medical Sciences (Table 3) and the results indicated that the strategic plan of the surgical department was relatively well written.

It is necessary to have graduates who can solve problems, use information resources, have knowledge of technology, be self-sufficient, have communication skills, have a comprehensive and community-oriented approach to health, and understand professional ethics, and appropriate techniques should be chosen to achieve these outcomes.[14]

So far, no study has been done regarding predicting community of needs on assessing the performance of the study group in terms of "comprehensive and continuous needs assessment for the identification and anticipation of community needs" (A1C2) and the performance of the

Table 3. Average performance of the general surgery department on accountable education

Area	Criteria	Result	Performance
A1C1	The existence of values and criteria for accountability in the mission and objectives of the strategic plan	58.33	Good
A1C2	Conducting studies to predict community needs"	0.00	No performance
A1C3	Taking into account the needs and indicators of community health in educational and research programs	25.00	Poor
A2C1	Developing effective practices and mechanisms in the field of health sector collaboration"	0.00	No performance
A2C2	Enhancing the active role of the group and educational experts in policy making and studies of the health system and other sectors of community.	0.00	No performance
A3C1	Estimating disciplines, levels and educational courses and student admission in each based on the present and future needs of the community".	0.00	No performance
A3C2	Considering the required roles and capabilities of the community in curriculum"	66.67	Good
A3C3	Anticipating the proper mechanisms for continuous professional development of graduates and faculty members for better accountability in the evolving needs of the community and the health system	85.71	Excellent
A4C1	Determining achievements proper to the community needs in developing goals and educational programs	66.67	Good
A4C2	Adopting strategies and teaching methods proper to the achievements, learning areas and professional tasks of graduates"	50.00	Moderate
A4C3	Assessing students' competencies and performance using methods and tools appropriate to their future roles and community needs"	37	Moderate
A4C4	Using comprehensive evaluation methods and improving the quality of educational programs according to social accountability indicators"	8.33	Poor
A5C1	Utilizing all facilities, staff and students to examine the needs and challenges of community health	60.00	Good
A5C2	Financial management and resources"	0.00	No performance
A5C3	Proper management of human resources and facilities in line with social accountability"	33.33	Moderate
A6C1	Academic excellence standards for proper accountability to the needs and challenges of community health	33.33	Moderate
A6C2	Reviewing existing educational standards in all fields of input, process, products"	0.00	No performance
A6C3	Standards of excellence in the field of department management	80.00	Excellent
A7C1	Commitment to internal evaluation and quality improvement of education periodically and on the basis of approved standards"	0.00	No performance
A7C2	Assessment based on accreditation indicators, educational progress with respect to meeting the needs of society with stakeholder participation"	25.00	Poor
A7C3	"Using comprehensive measurement tools for organizational evaluation and promotion"	100.00	Excellent
A8C1	Performing accreditation as a credible global mechanism	25.00	Poor
A9C1	Interacting with other domestic and international institutions and educational departments to establish a local system to ensure and improve the quality of education"	0.00	No performance
A10C1	"The balance between department independence and stakeholder participation"	25.00	Poor
A10C2	Conducting field studies and feedback to authorities and stakeholders"	0.00	No performance

surgery department was poor in terms of the criterion "inclusion of community health needs and indicators in educational and research programs" (A1C3).

Henon believes that placing students in a community setting as part of the curriculum is praiseworthy but not sufficient to ensure social accountability. What is needed now is a more comprehensive educational strategy, including provision of health services.[15] The five partnerships of policymakers, healthcare administrators, health professionals, community and educational institutions, and universities are essential and inevitable in social accountability.[16]

According to Table 3, there was no performance at the surgery department regarding the criterion of "developing effective practices and mechanisms in the field of health system cooperation" (A2C1) or the criterion of "enhancement of the active role of the department and educational experts in policymaking and health system studies and other sections of the community" (A2C2). It seems that better and more accurate planning in interacting with the health system will help to promote and improve the current situation.

A wide range of missions was observed for higher education institutions in many countries. However, focusing on human resource centers and addressing organizations that affect the quantity and quality of human resources is the main focus of policy making, studies and research about human resources. The study department lacked any performance in terms of the criterion "the introduction of disciplines, levels and courses and the of admission of students in each according to the current and future needs of society" (A3C1) which may be due to the lack of authority and role of the groups in this regard and centralization in student admission. In terms of the criterion "inclusion of the required roles and capabilities of the community in educational programs" (A3C2), the surgery department had a good performance at 66%. For the performance of the study department on the criterion of "anticipating the proper mechanisms for continuous professional development of graduates and faculty members in order to better respond to the evolving needs of the community and the health system" (A3C3), the score was 85%, which was excellent.

Many believe that the basic mission of the physician is to play a significant role in promoting human health and in trying to develop and promote a healthy lifestyle.[17] Therefore, training should be organized in such a way to make relatively lasting changes in the thinking, attitude and practice of learners.[18]

Continuing medical education is a process in which doctors can identify and update the needs of patients and the health care system and other fields related to medicine.[19] This is the right of patients to be treated by qualified doctors.[20] The main goal of continuing education is to update the skills and promote the clinical performance of physicians.[21,22] Educational needs assessment is an important tool in designing, developing and evaluating curricula today[23] and need assessment is considered as an essential element in the planning of continuing education.[24]

Regarding the role and importance of continuing education, the present study reviewed the performance of the study department in terms of the criterion of "determining the achievements appropriate to the community's needs in developing goals and educational programs" (A4C1) which showed a good performance at 66%.

In the new perspectives of medical education, some strategies have been considered as the basis for quality improvement by the experts, one of the main strategies of which is SPICES educational strategy. In this model, 6 strategies of student-centered, problem- based, Integrated, evidence- based, community-based, elective programs and the systematic program have been taken into consideration. In terms of "using appropriate educational strategies to promote social accountability such as spices" as well as "adopting educational strategies and methods proper to the achievements, learning areas and professional duties of graduates" (A4C2), the study department had a moderate performance of 50%.

It should be noted that the most important criterion in educational evaluation is predetermined educational goals. Therefore, the evaluation of academic development determines to what extent students have achieved predetermined educational goals.[25] Evidence also shows that students learn only the subjects during the course of study which leads them to the success in their examinations.[26] Based on Table 3, the mean of performance of the study department in terms of the criterion "assessment of students' abilities and performance using methods and tools appropriate to their future roles and community need" (A4C3) was 37%, at the moderate level, and the performance was poor regarding the criterion of "using comprehensive evaluation method and quality improvement of educational programs with respect to social accountability indicators" (A4C4).

In this study, in addition to the subjects discussed, management and effectiveness accountability and related criteria were examined. The performance of the surgery department regarding the criterion of "using all facilities, staff and students to examine the needs and challenges of community health" (A5C1), was good, 60%, but in terms of the criterion of "financial management and resources" (A5C2), it lacked any performance. In terms of criterion of "proper management of facilities and human resources for social accountability" (A5C3), the surgery department performance was moderate, 33%. It seems that group familiarity with the principals and methods of medical education, combined with personal commitment, in some ways, can purposely lead to the implementation of these comprehensive goals at the level of the relevant department.

Maintaining and improving the quality of programs and performance, academic excellence, having a proper mechanism in different areas of input, process and achievement, updating standards, professionalism and dynamic, innovative and accountable management is undoubtedly among the most important concerns of each group and educational institution. Therefore, the present study emphasized the importance of these areas by addressing the study group performance. The department performance, in line with the criterion of the "academic excellence standards for meeting the needs and challenges of community health" (A6C1), the criterion of "revision of existing educational standards in all fields of input, process, products" (A6C2), and the criterion of "standards of excellence in department management area" (A6C3) were 33% (moderate), zero (no performance), and 80% (high), respectively.

The academic system should continue to assess the desirability of its inputs, processes and outputs, and put relevant results at the disposal of the decision-makers to improve education, research and services areas. Evaluation allows management to assess the achievement of goals while increasing efficiency. Establishing a quality educational evaluation system provides a tool for the university to review its activities, identify its strengths and weaknesses, and select appropriate options for its reform and improvement.

Considering the importance of quality improvement, internal evaluation, external evaluation, participation of service recipients, students, and other stakeholders in evaluation and accreditation, this study has examined the areas, criteria and relevant indicators for their roles in improving weaknesses and increasing the strengths of the educational group and providing information for reforms to be considered. Accordingly, Table 3 outlines the study department on the criterion of "commitment to internal evaluation and quality improvement of the of education periodically based on approved standards" (A7C1), the criterion of "evaluation based on accreditation indicators, educational progress to meet community needs through stakeholder engagement" (A7C2), and the criterion of "using the comprehensive measurement tool for organizational evaluation and promotion" (A7C3), at 0% (no performance), 25% (poorly) and 100% (excellent), respectively.

In most of the structures used to evaluate and accredit higher education systems, including the evaluation of the quality of medical education systems, two processes – internal evaluation and external evaluation – are used. Internal evaluation is considered as a crucial part of improvement and quality assurance.[27,28] The external evaluation is based, in part, on an internal evaluation and assesses the internal evaluation results. In general, the goal of this model is to respond to the quality of the activities of a system or educational institution. For this reason, based on the results of this study and based on Table 3, the average performance of the study department in terms of the criterion of "validating as a valid universal mechanism" (A8C1) was 25% (poor). It seems that this accountable area may be considered beyond the authority of the surgery department by the department itself.

The average performance of the surgery department in the area of "global principles and local requirements," including the criterion of "interacting with other domestic and international institutes and departments to improve the quality of education" (A9C1), was 0 with no performance. It seems that if the department is to effectively utilize the cooperation and experiences of credible institutions in organizing and implementing a quality assurance system and improving the quality of education, it requires input and support from major national, ministry and university policymaking.

Based on the findings of the present study, the performance of the surgery department in the area of "community role" with the criteria of "balance between group independence and stakeholder participation" (A10C1) and "conducting field studies and feedback to authorities and stakeholders" (A10C2) was 25% (poor) and zero (no performance), respectively.

Outpatient education in medical education programs has been seriously emphasized.[29] Peirovi et al, in their study considered the role of community-based medical centers very effective in developing clinical education in medical students.[30]

Accordingly, Murray et al state that "the international agreement is that traditional medical education, which relies exclusively on hospital education, has lasted longer than what is useful." In this regard, the 1998 Edinburgh Declaration introduced medical education into the community rather than in hospitals.[31] In addition, studies have shown that community-based education improves students' level of knowledge and skills and enhances students' satisfaction with understanding community problems, designing solutions and analyzing and drawing conclusions from self-collected information. It is an opportunity for innovation.[32]

Based on Figure 1, the highest performance rate of the surgical department was in the Training and providing effective human forces area (A3). In contrast, in Cooperation and interaction with health system (A2) and Global principles and local requirements (A9) areas, no performance was observed for the mentioned department.

Considering the scope and comprehensiveness of social accountability and the results of this study, the overall result of the performance of the surgery department was moderate (38.55%) in the ten areas of accountable education. Due to the variety of department performances regarding the mentioned areas and criteria, it seems that more attention should be paid to the general approach and Ministry of Health policy making as well as the strategic and operational programs of the university and medical faculty and subsequently to the departments in line with

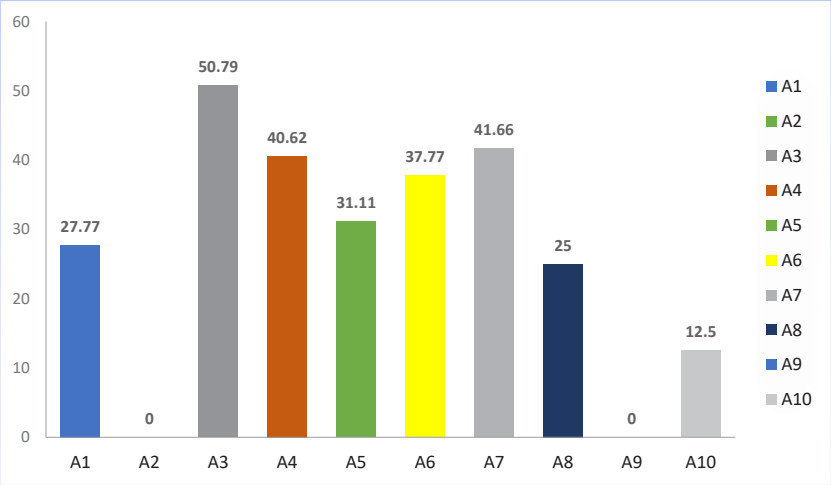

Figure 1. Status of accountable education indices in 10 Areas of accountable education in Department of General Surgery.

social accountability. Therefore, the Ministry of Health, as the main policymaker in this regard, can play a key role in providing leadership in understanding the vocabulary, concepts and policies of social accountability in medical education.

Considering the limitations of this study, which included: lack of knowledge and awareness of the concepts and scope of accountable education, dispersed information, the heavy workload of the selected departmental officials in collaborating with the project and the lack of similar studies, the study of curriculums in order to meet the real needs of the society and designing empowerment programs in universities and educational departments seems useful in responding to the needs of the society.

Conclusion

Surgery department performance seems to be due to different causes, including the following points: How to get in touch with the Medical Education Development Center and Medical Education Department, knowledge of accountability principles and criteria, and education and assessment and evaluation methods, enough knowledge about education methods, having a degree in medical education and the interest of head of department and the faculty members in accountable education.

Ethical approval

It should be noted that the present paper has been approved by Tabriz Research Center for Medical Education Coding 100199 and Ethics Committee of the University with the code IR.TBZMED.REC.1393.229.

Competing interests

The authors declare no conflict of interest.

Authors' contributions

AA an AB designed and performed research. MAJ, JA and FF analysed data and co-wrote the paper. The article was reviewed and approved by all authors

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