Original Article

Internal evaluation in the faculties affiliated to Zanjan university of medical sciences: quality assurance of medical science education based on institutional accreditation

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Abstract

Background & Objective: Institutional accreditation is a type of quality assurance in medical education to achieve quality standards in higher education institutions. The present study aimed at internal evaluation of the faculties affiliated to Zanjan University of Medical Sciences based on the institutional accreditation standards.

Materials & Methods: This study was conducted based on a descriptive cross-sectional design. The research samples included all the faculties affiliated to Zanjan University of Medical Sciences. This study was performed based on the national institutional accreditation standards (IA), including 66 standards and 351 measures in eight evaluation domains, approved by the Ministry of Health and Medical Education. In order to conduct an internal evaluation based on institutional accreditation standards, the experts in the fields of institutional accreditation were initially provided with the necessary training. Upon the collection of documents, the data was evaluated by the research group based on the accreditation standards. In the next step, to confirm the documents and complete the internal evaluation, a field visit was conducted to the educational and research facilities of the faculties based on the accreditation standards. Finally, the faculty officials and senior managers of Zanjan University of Medical Sciences were provided with feedback on the results of the internal evaluation in the two sections of mandatory and developmental standards.

Results: As evidenced by the obtained results, Zanjan University of Medical Sciences showed significant improvement in the achievement of accreditation standards in field evaluations. The highest and lowest percentages of compliance with the standards were observed in the faculties of nursing-midwifery and health-paramedicine, respectively.

Conclusion: In order to reach an ideal level in all necessary standards and improve the quality of medical education, in addition to the provision of necessary infrastructure, managers, professors, and experts in the field of education need to be thoroughly familiar with institutional accreditation standards.

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Introduction

According to the definition of the Higher Education Accreditation Council, the word "accreditation" is a multi-stage and academic process based on self and expert assessment (accreditation organizations) in accordance with predetermined standards to respond to the public for educational services and quality improvement. In order to achieve these goals, it is essential to continuously assess the quality of educational programs, faculty members, and staff. Accreditation is performed in order to ensure the quality of higher education in accordance with written and approved standards. Accreditation aims to control the quality of educational institutions and verify organizational processes in order to ensure compliance with minimum standards and indicators in an institution. Capable staff and an efficient system are indispensable for the provision of an acceptable level of education and health services in a society. The accreditation model in higher education consists of two stages, self-evaluation and external evaluation (1). Accreditation is regarded as a program developed to ensure the quality and excellence of education in the fields of medical sciences in most countries (2). Organizational self-evaluation in the organization is a key solution to improve performance in the organization and promote academic processes (3). A great emphasis is placed on the accreditation of medical education programs, and the costs of participation in accreditation are on the rise worldwide. Quality assurance and improvement in medical education are the primary goals of accreditation (4).

The efforts made to achieve accreditation standards improve the quality, efficiency, and effectiveness of services, reduce unnecessary costs, and increase the productivity of higher education institutions. The provision of honest information about the status of

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laboratory equipment standards, safety, and space design standards will be of great help in the identification of the strengths and weaknesses of universities. In Iran, self-evaluation or internal evaluation is the initial stage of accreditation, which aims to improve quality and obtain accreditation from the Ministry of Health Accreditation Institution.

External evaluation is conducted as a complement to internal evaluation by recognized external institutions. The institutions should be familiarized with a constructive self-evaluation process to use the accreditation process as a golden opportunity to develop medical education. This evaluation system can be developed through a close collaboration between medical schools and academic associations (5). In fact, internal evaluation aims to improve quality, while external evaluation guarantees quality.

In external accreditation, an external institution evaluates an organization based on predetermined quality standards. After an official visit to the institution, the accreditation organization decides on granting accreditation status to the organization (6); therefore, there are specific quality assurance programs to evaluate the quality of medical sciences education in most developed countries. For such an evaluation, accreditation is considered a high-quality evaluation plan. In addition, accreditation, while simultaneously responding to the needs of society for accountability and quality assurance, maintains university values in the long term in order to improve quality and self-control (7).

There is an increasing trend toward quality assurance and medical education accreditation across the globe (8). Considering that accreditation in Iran begins with university self-evaluation, universities and institutions should use standard self-evaluation models or those recommended by accredited institutions. The self-evaluation documents are sent to the accreditation organization, and the expert group in the accreditation organization reviews the documents. Thereafter, they visit the university to confirm them according to the predetermined schedule and interview the staff, students, managers, and faculty members.

Finally, based on the results of self-evaluation and the observations of evaluators, the accreditation organization decides on granting accreditation status to the university. In the interval between the visit to the university and the announcement of the accreditation result, the university can focus on the shortcomings pinpointed by the accreditation organization, eliminate them, and announce its preparation for evaluators' re-visit. It is important to note that accreditation is a continuous process encompassing all aspects of the university. In Iran, the accreditation of universities and institutions of higher education is designed in response to the health needs of society, the scientific movement toward the development of international standards of medical education, and the identification of potential in medical sciences universities.

The maintenance and improvement of educational quality and service provision have always been among the main concerns of universities and the Ministry of Health and Medical Education. In this regard, institutional accreditation is used to evaluate the quality of services in various fields. In light of the aforementioned issues, the present study aimed to assess and report on the quality of the existing infrastructure, evaluate the weaknesses and strengths of the current educational system, and improve and maintain this quality in different dimensions in accordance with the societal expectations from higher education and based on the institutional accreditation guidelines approved by the relevant ministry in Zanjan University of Medical Sciences.

This study was carried out in order to evaluate and improve infrastructures related to educational and research quality at Zanjan University of Medical Sciences in cooperation with the education development center of the university. Moreover, the specific goals of this study include the design, implementation, and evaluation of institutional accreditation at Zanjan University of Medical Sciences. This research was performed to solve educational problems and meet the existing needs.

Material & Methods

This study was conducted based on a descriptive cross-sectional design in Zanjan University of Medical Sciences and its subsidiary institutions, including vice-presidencies and faculties, from August 2017 to March 2019. It was carried out as one of the projects of the Transformation and Innovation Program in Medical Education according to the accreditation standards approved in the first meeting of the National Accreditation Commission of the Ministry of Health. In order to evaluate the qualitative and quantitative level of higher education, this study made use of institutional accreditation standards in eight domains (mission and goals, management, resources and facilities, staff training, faculty members, student services, research, student education), including 66 standards and 353 measures (154 mandatory and 199 preferred measures).

The standards that ensure quality are mandatory, while those that develop and promote quality are

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referred to as recommended or preferred. In order to achieve the optimal level of standards, in the meeting of the institutional accreditation working group, it was first decided to start the internal evaluation of institutional accreditation in eight domains from the beginning of August 2017 and present a written report on the accreditation progress of each domain in the last week of each month. It was also decided that after the classification of measures in different fields, a working group meeting would be held for each domain with the presence of the head of the accreditation working group, and the information be reviewed and documented.

In this study, in order to objectify and clarify the accreditation standards and measures for the target groups, a manual was compiled for the evaluation of institutional accreditation standards. In this manual, the degree of importance of the measure, the required documents, and the required accreditation method for this measure are explained, and a scoring guide table is placed under each measure. Observations, interviews, and scores are included in this table and display the documents to be reviewed, the issues to be observed, the people to be interviewed, and the scores to be assigned to that measure. Furthermore, affiliated colleges were requested to introduce an expert knowledgeable about the affairs of that domain to the Vice-Chancellor of Education.

In order to complete self-evaluation measures in the faculties and vice-presidencies, a briefing was held for the experts to clarify the standards and train them on the completion of self-evaluation forms and accreditation standards. In the next stage, the accreditation of faculties, as well as educational, research, cultural, and development vice-presidencies, was sent to the faculties and vice-presidencies of the university, along with the schedule and detailed visit plan of the institutional accreditation group.

The implementation steps of the accreditation program were as follows: 1. meeting with the dean of the faculty in the presence of vice-chancellors for education, research, and graduate studies, faculty general manager, managers of educational departments, and the accreditation expert of the faculty, 2. meeting with students, 3. field visit to educational, research, and welfare facilities of the faculty, 4. review of educational documents with the presence of the vice-chancellor for the education of the faculty and relevant experts.

After the field visit, interview, and document collection, data analysis, and evaluation were performed according to the ministerial standards. The evaluation confirmation form (Table 1) was sent to the faculties and vice-chancellors to inform them about the quantity and quality of the subsidiary institution. Thereafter, the obtained self-evaluation results were compared with the results of the external evaluation in Zanjan University of Medical Sciences in 2017, which was conducted by the ministerial evaluation group. The focus group meeting was held in order to discuss and exchange opinions about the challenges and solutions to improve the institutional accreditation and present the final report of the institutional accreditation in the presence of the president and vice presidents of the university.

Table 1. Evaluation Form

Ministerial standards (48 mandatory and 18 preferred)	According to the number of accepted standards (%)	Approval based on points
42 mandatory standards (complete, relative above 50%)	85 to 100	2 year approval
38 to 41 mandatory standards (complete, relative above 50%)	87 to 84	Conditional approval (for a period of 2 years)
36 to 37 mandatory standards (complete, relative above 50%)	74 to 77	Conditional approval (for a period of 1 year)
Less than 35 mandatory standards (complete, relative above 50%)	Less than 73	Educational notice

Ethical considerations: The present study was registered at Zanjan University of Medical Sciences (project code: A-11-973-10). In order to observe the principles of research ethics, the participants were assured of the confidentiality of information, they were provided with the objectives of the study, and permission was obtained from the faculties and vice-chancellors.

Results

The institutional accreditation of Zanjan University of Medical Sciences was carried out in 2017 in three stages, 1. self-evaluation, 2. external evaluation, and 3. awarding of accreditation status. In the report of this visit, the evaluators assessed the status of document collection and organization and the implementation of standards in the university as very good, and even the status of some faculties was rated as excellent. In this evaluation, Zanjan University of Medical Sciences received a two-year conditional approval of institutional accreditation. According to this report, the mandatory standards with which the university performance did not comply are as follows:

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1. S5A5: Existence of a specific mechanism for the continuous training of faculty members (absence of an annual training program for professors, insufficient number and variety of empowerment workshops, and lack of budget allocated to the training of professors).
2. S4A6: Dealing with students' disciplinary matters (documents related to proper informing of students about the regulations concerning student violations, regular arrangement of disciplinary committee meetings if needed, and the observance of these regulations in the decisions made by the disciplinary committee should be provided).
3. S5A7: Organization of conferences (a report of a joint congress organized by the university was presented; nonetheless, no further report was presented on the cooperation and participation of scientific associations and non-governmental institutions in holding conferences).
4. S2A8: Active and appropriate teaching methods in workshops were not supported on a regular basis every year.
5. There was no incentive regulation in the institution for this purpose. Virtual education has not been observed at any level.

The accreditation process for preparing self-evaluation reports and preparation for external evaluation, which was concluded in 2019, lasted for one year. The highest and lowest percentages of compliance with the standards were observed in the faculties of nursing-midwifery and health-paramedicine, respectively. The faculties of pharmacy, dentistry, and medicine ranked second to fourth. According to the evaluation approval form (Table 1), the percentage of compliance of the faculties affiliated to Zanjan University of Medical Sciences in the internal accreditation of 2019 was announced to the faculties for necessary measures, as described in Table 2.

Table 2. The percentage of compliance of faculties with the approved accreditation standards in the internal evaluation of 2018

University faculties	Compliance percentage	Approval based on points
Faculty of medicine	76%	Conditional approval (for a period of 1 year)
Faculty of pharmacy	85.71%	2 year approval
Faculty of dentistry	80%	Conditional approval (for a period of 2 years)
Faculty of Nursing and Midwifery	94.44%	2 year approval
Faculty of Paramedicine and Health	70%	Educational notice
Abhar nursing and emergency medicine	80%	Conditional approval (for a period of 2 years)

Table 3 presents the comparison of the percentage of compliance and achievement or non-achievement of desired standards in Zanjan University of Medical Sciences in 2019 compared to that in 2017. In this evaluation, Zanjan University of Medical Sciences showed substantial improvement in achieving the optimal level of mandatory and preferred measures. This quality improvement was attributed to the clarification of standards and engagement in a joint dialogue with supervisory officials and experts, as well as structural improvement and documentation in different academic departments.

Table 3. Comparison of the external evaluation from 2016 and the internal evaluation from 2018 in the accreditation of the institution. *: The standard cannot be evaluated; ↑: upgraded; ↓: degraded

Field	Standards	Standard text	Type	Compliance rate in 2016	Compliance rate in 2018
Mission and Goals	S1A1	Clarity of mission and goals of the university and covered units	Mandatory	Relatively complete	Relatively complete
	S2A1	The comprehensiveness and transparency of the compiled goals	Mandatory	Complete	↓Relatively complete
	S3A1	Existence of a specific mechanism to evaluate the degree of achievement of goals	Mandatory	Relatively complete	Relatively complete
	S4A1	The participation of the institute's staff in drafting the statement of mission and goals	Mandatory	Complete	↓Relatively complete
Management	S1A2	Existence of appropriate mechanisms for monitoring the organizational structure of the institution and proposing necessary changes	Preferred	Relatively complete	Somewhat ↓
	S2A2	The existence of a planned mechanism to improve the processes	Mandatory	Relatively complete	Somewhat ↓

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	S3A2	Clear and written duties and authority limits of the people working in the institution	Mandatory	Relatively complete	Relatively complete
	S4A2	he efforts of the university management to develop suitable guidelines for the systematic implementation of regulations and obligations	Mandatory	Complete	↓Relatively complete
	S5A2	Appointment of managers based on clear criteria	Preferred	Complete	Complete
	S6A2	Existence of a suitable evaluation system of employee performance	Mandatory	Complete	Complete
	S7A2	Existence of a suitable mechanism to review the results of plans and programs	Preferred	Relatively complete	Complete↑
	S8A2	The existence of a suitable management information system (MIS) in the organization	Mandatory	Relatively complete	Relatively complete
	S9A2	Appropriateness of the budget allocation process in the university	Mandatory	Complete	↓Relatively complete
	S10A2	Existence of delegation policy in the institution	Preferred	Relatively complete	Complete↑
	S11A2	The institution's readiness to hand over duties to the non-governmental sector and reduce government employment	Preferred	Relatively complete	Relatively complete
	S12A2	The satisfaction of recruits from the university	Mandatory	Relatively complete	Relatively complete
	S13A2	The degree of success of the institution in attracting non-governmental resources (foundations, charities, philanthropists)	Preferred	Relatively complete	Relatively complete
Resources and Facilities	S1A3	Suitability of the physical space to carry out the headquarters affairs of the institute	Mandatory	Complete	Complete
	S2A3	Suitable spaces and facilities for the use of employees and clients	Preferred	Relatively complete	Relatively complete
	S3A3	The availability of a suitable sports space for the institution	Preferred	Relatively complete	Relatively complete
	S4A3	Kindergarten availability for employees and students of the institution	Preferred	Relatively complete	Relatively complete
	S5A3	Availability of public transportation for employees and students (if needed)	Mandatory	Relatively complete	Relatively complete
	S6A3	Existence of suitable space and physical facilities in colleges	Mandatory	Relatively complete	Relatively complete
	S7A3	Compliance with safety standards in colleges	Mandatory	Relatively complete	Relatively complete
	S8A3	The appropriateness of the space allocated to students for individual, group and extracurricular activities	Preferred	Relatively complete	Relatively complete
	S9A3	Easy access to reproduction services for students and faculty	Mandatory	Complete	Complete
	S10A3	The existence of suitable facilities for teaching practical skills to students (Skill lab)	Mandatory	Relatively complete	Relatively complete
	S11A3	Availability of appropriate laboratory facilities and equipment	Mandatory	Relatively complete	Relatively complete
	S12A3	The existence of suitable facilities for keeping laboratory animals	Preferred	Complete	↓Relatively complete
	S13A3	Suitability of the library facilities and services of the covered colleges and teaching hospitals	Mandatory	Relatively complete	Complete↑
	S14A3	Appropriateness of information system facilities and services	Mandatory	Relatively complete	Complete↑
	S15A3	The existence of student dormitories with suitable facilities	Mandatory	Relatively complete	Relatively complete
Employee training	S1A4	Availability of appropriate resources for employee training	Mandatory	Complete	Complete

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	S2A4	Existence of employee training information system	Mandatory	Complete	Complete
	S3A4	The existence of a suitable program for training employees	Mandatory	Complete	Complete
Faculty members	S1A5	Having a suitable policy for hiring faculty members	Mandatory	Relatively complete	Complete↑
	S2A5	The appropriateness of the composition, distribution and number of faculty members in the institution	Mandatory	Relatively complete	Relatively complete
	S3A5	The existence of a suitable device for evaluating and promoting faculty members	Mandatory	Relatively complete	Complete↑
	S4A5	Existence of appropriate information system about faculty members	Preferred	Relatively complete	Complete↑
	S5A5	Existence of a specific mechanism for continuous training of faculty members	Mandatory	Somewhat	Complete↑
	S6A5	Clarity of the activity schedule of faculty members	Mandatory	Complete	Complete
Providing services to students	S1A6	Providing necessary services to students	Mandatory	Relatively complete	Relatively complete
	S2A6	Providing appropriate extra-program services	Preferred	Relatively complete	Complete↑
	S3A6	Participation of students in student affairs	Mandatory	Complete	Complete↑
	S4A6	Dealing with students' disciplinary matters	Mandatory	Somewhat	Complete↑
Research	S1A7	Planning, directing and monitoring research activities	Mandatory	Relatively complete	Complete↑
	S2A7	Attention to the quantitative and qualitative development of research projects	Preferred	Relatively complete	Complete↑
	S3A7	The existence of an efficient system of communication between the institute's research area and the service and industry sectors	Preferred	Relatively complete	Complete↑
	S4A7	Organizing the publication of scientific works of the institute	Mandatory	Relatively complete	Complete↑
	S5A7	Organization of conferences	Mandatory	Somewhat	↑Relatively complete
	S6A7	Planning for faculty members to make extensive use of study opportunities and scientific trips	Mandatory	Relatively complete	Complete↑
	S7A7	Proper planning to expand relations with scientific centers abroad	Preferred	Somewhat	↑Relatively complete
	S8A7	The existence of organized and efficient research centers	Preferred	Relatively complete	Relatively complete
	S9A7	Institute planning for the development of innovation and inventions	Preferred	Somewhat	Complete↑
	S10A7	Proper management of graduate theses	Mandatory	Relatively complete	Complete↑
	S11A7	Systematic support of students' research activities	Mandatory	Complete	Complete
Student education	S1A8	Clarity of curricula	Mandatory	Relatively complete	Relatively complete
	S2A8	Active and appropriate teaching methods in workshops	Mandatory	Somewhat	↑Relatively complete
	S3A8	Regular evaluation of curricula	Preferred	*	Complete↑
	S4A8	The existence of an efficient and responsive system in evaluating the academic progress of students in theoretical courses	Preferred	Complete	Complete↑
	S5A8	The existence of an efficient and responsive system in evaluating the academic progress of students in practical courses clinical	Preferred	Complete	Complete↑
	S6A8	Providing academic counseling and guidance services to students	Mandatory	Relatively complete	Complete↑

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S7A8	Special attention to solving educational problems through research	Preferred	Somewhat	Complete↑
S8A8	The appropriateness of providing educational services	Mandatory	Complete	Complete
S9A8	Using the excess capacity of the university	Preferred	Complete	Complete↑
S10A8	Planned attention to outstanding students	Preferred	Complete	Complete↑

Table 4 presents the details of the self-evaluation of Zanjan University of Medical Sciences based on the standards defined by the relevant ministry in 2019.

Table 4. Self-evaluation of affiliated faculties of Zanjan University of Medical Sciences in 2018; the meaning of % is the degree of compliance with the standards of the relevant ministry. *: The standard cannot be evaluated; ↑: above; ↓: less

Standards	Type	faculty of medicine	Faculty of dentistry	faculty of pharmacy	Faculty of Paramedicine and Health	Faculty of Nursing and Midwifery	Abhar School of Nursing
S1A2	Preferred	50%↓	*	*	100%	100%	100%
S3A2	Mandatory	100%	50%↑	50%↑	50%↑	100%	100%
S1A3	Mandatory	100%	100%	100%	50%↓	100%	100%
S2A3	Preferred	100%	100%	100%	100%	100%	50%↓
S4A3	Preferred	*	*	*	*	*	100%
S5A3	Mandatory	*	*	100%	100%	100%	*
S6A3	Mandatory	50%↑	50%↑	100%	50%↑	100%	100%
S7A3	Mandatory	50%↓	50%↑	100%	50%↓	50%↑	50%↑
S8A3	Preferred	50%↑	50%↑	100%	100%	100%	100%
S9A3	Mandatory	50%↓	50%↓	100%	50%↑	100%	50%↑
S10A3	Mandatory	50%↓	100%	100%	50%↑	50%↑	50%↓
S11A3	Mandatory	50%↑	50%↑	50%↑	50%↑	50%↑	50%↓
S12A3	Preferred	50%↓	*	50%↓	50%↑	*	*
S13A3	Mandatory	50%↓	*	50%↓	50%↑	*	50%↑
S14A3	Mandatory	100%	100%	100%	50%↓	100%	100%
S6A5	Mandatory	50%↑	*	50%↑	100%	100%	100%
S1A7	Mandatory	100%	*	100%	*	100%	100%
S10A7	Mandatory	100%	100%	*	*	*	*
S11A7	Mandatory	100%	50%↓	*	*	100%	100%
S1A8	Mandatory	100%	100%	100%	50%↓	100%	100%
S2A8	Mandatory	50%↑	100%	100%	100%	100%	100%
S3A8	Mandatory	50%↓	*	100%	100%	100%	100%
S4A8	Mandatory	100%	100%	50%↑	100%	100%	100%
S5A8	Mandatory	100%	50%↑	100%	*	100%	100%
S6A8	Mandatory	100%	50%↑	100%	50%↑	100%	100%
S8A8	Mandatory	100%	100%	100%	100%	100%	100%

Discussion

The present study aimed to evaluate and compare the quality of the existing infrastructure, evaluate the weaknesses and strengths of the current educational system, and improve and maintain this quality in different domains in accordance with the societal expectations from higher education in a two-year period in Zanjan University of Medical Sciences. According to the obtained results, Zanjan University of Medical Sciences is demonstrating significant improvement in the achievement of accreditation standards.

In Iran, the design and implementation of the accreditation program for medical sciences universities and faculties is the responsibility of the secretariat of the Council for the Development of Medical Sciences Universities in the Ministry of Health, which is realized in cooperation with the secretariats of education, universities of medical sciences, and healthcare services of the country. The major goals of the institutional accreditation package are to systematize the process of monitoring and evaluation of medical sciences universities using the design and implementation of the institutional accreditation program and ensure quality in medical sciences universities and faculties.

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Currently, there are more than 4,000 students in 64 fields, more than 420 faculty members, and several research centers at this university. As evidenced by the results of this study, we observed a significant improvement in the quality and quantity of education, research, and infrastructure in this university based on institutional accreditation standards. In addition, the results of the present study were of great help in the identification of weaknesses and strengths in achieving institutional accreditation standards. Jung H, Taek Jeon W, and An S, 2020 are of the belief that if the positive values of the accreditation process are taken into account, the accreditation of medical schools will be a great opportunity for the development of medical education (5).

This study was carried out by conducting an internal evaluation, in other words, with a simulated external ministerial evaluation and qualitative analysis, including the review of self-evaluation sheets and providing feedback to the faculties and vice-chancellors to prepare and carefully examine the situation of the faculties and vice presidencies in Zanjan University of Medical Sciences. The achievement of required standards and comprehensive participation of faculty members and staff in planning and evaluation was one of the most important goals of internal evaluation at Zanjan University of Medical Sciences.

Considering the limited time for the entire accreditation process, this evaluation was necessary for the preparation of experts and faculty members involved in accreditation. In the study conducted by Yarahmadian et al., one of the challenges presented to institutional accreditation in Iran is inappropriate timing and the limited time of accreditation implementation. A comparison between the results of self-evaluation in the current study and those of ministerial evaluators in 2017 revealed that the percentage of completed essential measures increased from 36% in 2017 to 55% in 2019. Furthermore, the rate of completed preferred measures increased from 18% in 2017 to 58% in 2019. Zanjan University of Medical Sciences was able to provide proper documentation to meet the four aforementioned measures by carrying out necessary planning. For example, in order to fulfill the measures S5A5 and S2A8, a comprehensive program under the title "Taha Project "was designed and implemented for the educational empowerment of professors.

In most developed countries, there are specific quality assurance programs to evaluate the quality of medical science education. The quality assessment of medical education through the accreditation of medical institutions is one of the serious challenges posed to health systems in most countries (9). Accreditation is a self-evaluation process based on standards to ensure and improve the quality of education in an institution or university. In such a process, it can be determined whether the institution moves towards predetermined goals or not (10). In Iran, the development of medical sciences universities needs both qualitative and quantitative improvement. Therefore, some packages have been developed to bring about innovation in medical education according to the documents of the Ministry of Health, such as institutional accreditation, improving the quality of education.

Institutional accreditation, as one of the main missions of improvement programs, was implemented for the first time in 2015. Medical colleges around the world are adopting an accreditation scheme to ensure that their educational programs meet quality standards. Although accreditation processes use different strategies, techniques, and standards, as well as some issues and goals, are common to all (11). In Iran's accreditation system, some of the institutional accreditation measures are vague and need to be revised. Due to the lack of clear and comprehensible content of some accreditation standards, a uniform model, as well as necessary regulations and instructions to implement the standards in academic centers, there are different and non-standard models in the centers, leading to confusion among accreditation experts.

At the commencement of this study, almost all accreditation experts experienced some degree of uncertainty in their understanding of accreditation standards. In addition, some experts concluded that some standards have several concepts and refer to different guidelines. Therefore, the majority of the standards were much broader than they seemed at first glance. The results of the study by Yarmohamedian et al. also pointed out that one of the challenges posed to accreditation is a concern about the validity and reliability of the evaluation tools and ambiguity in documentation methods (12). Moreover, different opinions of evaluators in reviewing the standards can lead to incorrect implementation of institutional accreditation; therefore, ministerial evaluators and internal university evaluators must have the necessary training. The difference in the views of evaluators presents a daunting challenge to institutions.

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In the correct implementation of accreditation to higher education institutions, special attention should be devoted to the training and empowering accreditation evaluators in understanding and interpreting standards (knowledge in the field of standards), performance evaluation and measurement process, continuous quality improvement, communication skills, counseling techniques, interview methods, observation skills, audit and document review, report writing techniques, evaluators' ethical principles, and teamwork.

The empowerment of ministerial and university evaluators plays a significant role in the achievement of accreditation goals. In the absence of knowledgeable and skilled accreditation evaluators, the best standards and the most appropriate accreditation method do not produce any satisfactory results. The practical guide for the use of World Federation for Medical Education (WFME) standards has emphasized that the standards should be considered and evaluated operationally (10). According to the results of the study by Yarmohamedian et al., it seems that some personal characteristics of evaluators are associated with the assessment method.

According to the results of this study, the motivation and personal characteristics of evaluators, their personal judgment, and inadequate training can have an effect on the evaluation results (12). Sufficient care should be taken in the selection of evaluators, and they should be selected based on the description of duties and the conditions of the relevant qualification. The evaluator must have practical experience in the relevant field. Work experience helps evaluators to establish a better relationship with the evaluatee and boosts their self-confidence.

A large number of people and the limitation of coordination among them increases the implementation of subjective measures. Evaluators can be easily provided with necessary training by reducing the number of measures. In general, in all accreditations, at least three stages of self-evaluation, external evaluation, and survey visit after the initial review should be considered in accordance with the systematic approach in order to achieve continuous quality improvement.

Conclusion

The improvement of educational and research quality, as well as the attainment of the desired standards at Zanjan University of Medical Sciences, were the main goals of self-evaluation and simulating external evaluation in the present study. In this research, it was attempted to implement the accreditation program by fostering a suitable organizational culture in order to develop an error acceptance system and increase the quality of services. Zanjan University of Medical Sciences must provide the necessary infrastructure to obtain promising results and reach the ideal level in all necessary standards and improve the quality of medical education. Moreover, all academic staff should be familiarized with accreditation standards.

Conflict of Interests

The authors declare that they have no conflict of interest.

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References

1. Bigdeli S, Arabshahi SKS, Sohrabi Z, Zazoly AZ. Exploring the challenges of educational accreditation of teaching hospitals and providing the solutions. Journal of education and health promotion. 2021;10:144. [https://pubmed.ncbi.nlm.nih.gov/34222519]

2. Cueto J, Jr., Burch VC, Adnan NA, Afolabi BB, Ismail Z, Jafri W, et al. Accreditation of undergraduate medical training programs: practices in nine developing countries as compared with the United States. Education for health (Abingdon, England). 2006;19(2):207-22. [https://pubmed.ncbi.nlm.nih.gov/16831802/]

3.De Gani SM, Nowak-Flück D, Nicca D, Vogt D. Self-Assessment Tool to Promote Organizational Health Literacy in Primary Care Settings in Switzerland. International journal of environmental research and public health. 2020;17(24). [https://doi.org/10.3390/ijerph17249497]

4. Blouin D, Tekian A, Kamin C, Harris IB. The impact of accreditation on medical schools' processes. Medical education. 2018;52(2):182-91. [https://doi.org/10.1111/medu.13461]

5. Jung H, Jeon WT, An S. Is accreditation in medical education in Korea an opportunity or a burden? Journal of educational evaluation for health professions. 2020;17:31. [https://doi.org/10.3352/jeehp.2020.17.31]

6. Simpson I, Lockyer T, Walters T. Accreditation of medical training in Australia and New Zealand. The Medical journal of Malaysia. 2005;60 Suppl D:20-3. [http://www.ncbi.nlm.nih.gov/pubmed/16315618]

7. The Healthcare Imperative: Lowering Costs and Improving Outcomes: Workshop Series Summary. Yong PL, Saunders RS, Olsen L, editors. Washington DC: © National Academy of Sciences.; 2010. [https://doi.org/10.17226/12750]

8. Tackett S, Grant J, Mmari K. Designing an evaluation framework for WFME basic standards for medical

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[DOI: 10.52547/edcj.15.46.61]

education. Medical teacher. 2016;38(3):291-6. [https://doi.org/10.3109/0142159x.2015.1031737]
9. Blouin D, Tekian A. Accreditation of Medical Education Programs: Moving From Student Outcomes to Continuous Quality Improvement Measures. Academic medicine : journal of the Association of American Medical Colleges. 2018; 93(3): 377-83. [https://doi.org/10.1097/acm.0000000000001835]
10. International standards in medical education: assessment and accreditation of medical schools'--educational programmes. A WFME position paper. The Executive Council, The World Federation for Medical Education. Medical education. 1998;32(5):549-58. [https://doi.org/10.1046/j.1365-2923.1998.00302.x]
11. van Zanten M, Norcini JJ, Boulet JR, Simon F. Overview of accreditation of undergraduate medical education programmes worldwide. Medical education. 2008;42(9):930-7. 2008;42(9):930-7. [https://doi.org/10.1111/j.1365-2923.2008.03092.x]
12. Yarmohammadian MH, Khorsani E, Norouzinia R, Mirzaei S, Ehsanpour S, Yamani N, et al. Institutional Accreditation in Medical Education: The Experience of The Survey Visit Teams. J Educ Health Promot. 2020;9:39. [https://pubmed.ncbi.nlm.nih.gov/32318607]

Alireza Abdanipour, Ali Norouzi, Mehdi Ghaemi, Farhad Ramezani-Badr. Internal evaluation in the faculties affiliated to Zanjan university of medical sciences: quality assurance of medical science education based on institutional accreditation. J Med Educ Dev. 2022; 15(46): 61-70

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