Internal Evaluation of the Obstetrics and Gynecology Department of Semnan University of Medical Sciences in 2015

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Abstract

**Background & Objective:** This study aimed to evaluate the Obstetrics and Gynecology Department of Semnan University of Medical Sciences in 2015 and compare it with the existing evaluation conducted in 2002 to promote the quality of education in this department.

**Materials & Methods:** An accreditation pattern was used in the current study. In 2000, the Obstetrics and Gynecology Department of Amir-al-Momenin Teaching Hospital in Semnan designed its internal evaluation pattern, in which all educational, research, and therapeutic goals, institutional and organizational status, educational process, and equipment availability status were examined. A total of 40 questionnaires were applied. In each questionnaire, the criteria were scored from 1 to 5 (very poor to excellent). Gorman’s classification was employed for final analysis and a score lower than 2.51 was considered as unsatisfactory.

**Results:** In this evaluation, the educational goals achieved a score of 4.3 and were in the strong range of Gorman’s classification. The educational programs obtained a score of 5 and were in the range of very strong. Both educational goals and educational programs showed a significant progress compared to 2002. The educational process with a score of 3.11 was more than satisfactory; the therapeutic goals with a score of 4.3 were in the strong range; the institutional and organizational status of the department with a score of 4.43 was in the strong range; and the research goals with a score of 5 were in the strong range. Additionally, space, human resources, and equipment scored 4.4 based on Gorman’s classification and were in the strong range.

**Conclusion:** Overall, based on the obtained results, the Obstetrics and Gynecology Department with a score of 4.23 was in the strong range of Gorman’s classification, indicating its desirable status. Moreover, the therapeutic-research and educational goals showed a significant progress compared to 2002.

**Keywords:** Internal Evaluation, Obstetrics and Gynecology Department, Semnan University of Medical Sciences

Introduction

Internal evaluation, as a participatory approach, that leads to a regular, systematic, and comprehensive review of higher education institutes’ activities and is based on the current processes and realities of these institutions has a set of distinctive and outstanding features. In other words, educational evaluation is carried out to establish clear criteria for judging educational systems and it aims to improve educational quality and create more efficiency in the educational systems. This is while clinical educational evaluation is needed to acquire scientific and practical skills and pass correct clinical judgments.

Iran’s third five-year development plan approved an evaluation and accreditation scheme which focused on medical universities. In this regard, the first plan of the Iranian Ministry of Health and Medical Education (MOHME) was to conduct internal goal-based evaluations of university departments followed by their external evaluations. In 1996, internal evaluations were done by considering the objectives. In 2000, external evaluations were carried out in some medical schools (1).

Making use of a performance management process in higher education institutions is significant in evaluating...
the performance of students, alumni, and faculty members. Such a process optimally evaluates qualitative components and uses the results to improve the weaknesses and strengthen the strengths (1). Evaluation is regarded as one of the most important performance management mechanisms in quality development in an organization; in fact, quality improvement requires qualitative evaluation (1).

The International Organization for Standardization (ISO) defines quality as a set of features and characteristics of a product or service that represent its ability to satisfy the stated or implied demands (2,3). Evaluation means judging by some criteria and refers to collecting, analyzing, and interpreting data to assess the extent to which organizational and performance goals are accessible (4).

The accreditation pattern is one of the longest-running models used for evaluating educational institutes, especially higher education institutes, and yet it is one of the most controversial ones (1).

Accordingly, the directors and staff of the Obstetrics and Gynecology Department of Semnan University of Medical Sciences decided to re-evaluate itself in 2015 and compare the results with those obtained in previous years in an attempt to identify its strengths and weaknesses and also make plans for improving its educational quality.

Materials and Methods

Introducing the Educational, Research, and Therapeutic Unit

Semnan University of Medical Sciences consists of 5 faculties, i.e., Medicine, Dentistry, Paramedical, Nursing, and Health and Rehabilitation. This university was established in 1988 and has had medical graduates during the past 24 years. Currently, the Medical School accepts students for residency in internal medicine, pediatrics, and gynecology.

Other than the gynecology ward, Amir-al-Momenin Hospital has a pediatric ward, intensive care unit (ICU), and neonatal intensive care unit (NICU), in which two students of residency programs are working.

The gynecology ward comprises 50 beds, placed in midwifery, gynecology surgery, labor, delivery room, gynecology clinic, family planning, and ICU, and has the needed equipment for performing colposcopy, cryotherapy, abdominal and vaginal ultrasonography, laparoscopy and hysteroscopy. So far, it has had gynecology residency graduates for the last 18 years, and 13 residents are still working there. The department has 3 associate professors, 3 assistant professors, and 1 faculty member.

Internal Evaluation Method

This cross-sectional study was followed by a descriptive and analytical survey. In 1998, the Obstetrics and Gynecology Department of Amir-al-Momenin Hospital developed an internal evaluation plan by establishing an evaluation council for educational purposes and considering the indicators and questionnaires needed to assess and achieve the goals (5). In the winter of 2014, the council was re-established and decided to review the existing criteria. As a result, the necessary changes were made and approved for re-evaluation.

In this study, the accreditation pattern was used for internal evaluation; meanwhile, the educational, therapeutic, and research goals, educational process, institutional and organizational status, and space, human resources, and equipment were also evaluated.

The present study was carried out in the time period between January 2015 and June 2015. The study population consisted of students, faculty members, ward supervisors, and residents. A total of 14 students, 7 professors, and 11 residents participated in this study.

Data were collected using 40 special questionnaires. The desirable attribute of each criterion was determined and each criterion was scored from 1 to 5 (ranging from very poor to excellent). The mean score of the criteria was determined by Gorman’s classification (Table 1). A score of less than 2.51 was considered unsatisfactory (6).

Table 1. Gorman’s classification

| Classification          | Numeric range (scores achieved) |
|------------------------|---------------------------------|
| Very strong            | 4.51-4.99                       |
| Strong                 | 4.01-4.49                       |
| Good                   | 3.61-3.99                       |
| More than satisfactory  | 3.01-3.59                       |
| Satisfactory           | 2.51-2.99                       |
| Borderline             | 2.01-2.49                       |
| Unsatisfactory         | <2                              |

Afterwards, the results related to 2015 were compared with those obtained in 2002 and the differences were studied.
considering the educational goals developed by the department council and the questionnaires were filled out by the professors and students.

**B: Therapeutic Goals:** The following factors were evaluated to achieve the therapeutic goals:

1. Laboratory Facilities: 14 criteria were determined based on the needs of the gynecology ward and their desirable attributes were identified (scores ranged from 1 to 5).
2. Radiological Equipment: 4 criteria, including types of x-rays (hysterosalpingography, fluoroscopy, plain radiography, and contrast-enhanced radiography), ultrasonography (abdominal and vaginal), MRI, and CT, were determined.
3. Endoscopic Facilities: This includes laparoscopic, hysteroscopic, and colposcopic criteria.
4. Specialty Treatment Facilities: In addition to facilities mentioned in A, B, and C, other facilities including mechanical ventilation, blood transfusion, dialysis, nutrition, physiotherapy, chemotherapy, radiotherapy, serum therapy, and oxygen therapy were evaluated.
5. Health Purposes: This includes 49 criteria.
6. Therapeutic Goals: This includes 14 criteria that summarize factors from A to E, as well as emergency treatment facilities and mortality rates.

**C: Research Goals:** This includes 4 criteria, i.e., the number of supervised theses, taking part in congresses and seminars, number of papers presented in congresses, and the number of manuscripts published in medical journals by faculty members working in this department.

**D: Institutional and Organizational Status of the Department:** In this section, the head of the department, the department council, and the department members were evaluated. 19 criteria were considered for evaluating the head of the department, 20 for evaluating the department council, and 25 for evaluating the faculty members.

**E: The Educational Process of the Department:** Educational units and educational process were evaluated from the perspective of apprentices and residents.

**F: Space, Human Resources, and Equipment:** Criteria for evaluating these items included examining the characteristics of midwives, nurses, supervisors, assessing the wards’ space (midwifery, gynecology surgery, and labor), and investigating the status of equipment (based on the checklist).

### Results

**A: Educational Goals:** Tables 2 and 3 present the results of evaluating the educational process and the extent to which this department achieved them in various programs according to Gorman’s classification. Moreover, the results were compared with those obtained in 2002. The evaluation of the residents’ educational process is presented in Table 4.

#### Table 2. Comparing the evaluations of the Obstetrics and Gynecology Department made based on students’ viewpoints in 2002 and 2015

| Level of Education | 2002 | 2015 |
|--------------------|------|------|
| Educational goals  | Gorman’s classification | Educational goals | Gorman’s classification |
| Apprenticeship    | 2.76 | Satisfactory | 2.37 | Borderline |
| Residency         | 3.65 | Good | 3.85 | Good |
| Total             | 3.2  | More than satisfactory | 3.11 | More than satisfactory |

#### Table 3. Comparing the evaluations of achieving the educational goals of the Obstetrics and Gynecology Department made based on the professors’ viewpoints

| Level of Education | 2002 | 2015 |
|--------------------|------|------|
| Educational Goals  | Gorman’s Classification | Educational Goals | Gorman’s Classification |
| The second year of apprenticeship | 2.72 | Satisfactory | 4.99 | Very strong |
| The third year of apprenticeship | 3 | More than satisfactory | 4.78 | Strong |
| The fourth year of apprenticeship | 2.7 | Satisfactory | 3.18 | More than satisfactory |
| Total              | 2.8  | Satisfactory | 4.32 | Strong |
Table 4. Evaluating the educational process made based on the professors’ viewpoints in 2015

| Level of Education                  | Educational Process | Gorman’s Classification |
|-------------------------------------|---------------------|-------------------------|
| The second year of apprenticeship  | 4.06                | Strong                  |
| The third year of apprenticeship   | 4.15                | Strong                  |
| The fourth year of apprenticeship  | 3.27                | More than satisfactory   |
| Total                              | 3.82                | Good                    |

Overall, the educational level of the Obstetrics and Gynecology Department in 2015 was more than satisfactory (score=3.11). This has not changed much compared to 2002; however, the results presented in this table showed a downward trend in the apprenticeship program and an upward trend in the residency program.

Evaluating the extent to which the department achieved its educational goals in 2015 indicated that this department obtained a score of 4.32 and was in the strong range; this demonstrated a good increase in the classification compared to 2002, which was in the satisfactory range. Regarding the status of the most common problem of medical diagnosis for residents related to the treatment of cancer patients -which occurred due to lack of relevant cases, the results showed that this status was better than that in 2002.

Programs such as clinical training, conferences attendance, and the journal club played the most important roles in the apprentices’ training.

The evaluation of the Obstetrics and Gynecology Department was made based on the above questionnaires and obtained the score of 5, which was in the strong range of Gorman’s classification.

Table 5. Comparing the evaluations of therapeutic goals made in 2002 and 2015

| The evaluated factors          | 2002          | 2015          |
|-------------------------------|---------------|---------------|
|                              | The number of criteria | Score | Gorman’s classification | The number of criteria | Score | Gorman’s classification |
| Laboratory Facilities        | 14            | 2.76          | Satisfactory     | 14            | 3.2   | More than Satisfactory |
| Endoscopic Facilities        | 3             | 4.6           | Very Strong      | 3             | 5     | Very Strong            |
| Radiology Facilities         | 4             | 4.2           | Strong           | 4             | 4.2   | Strong                 |
| Facilities for Adjuvant Therapies | 8           | 2.75          | Satisfactory     | 8             | 4.3   | Strong                 |
| Health Goals                 | 47            | 4.37          | Strong           | 47            | 4.6   | Very Strong            |
| Therapeutic Goals            | 14            | 4.29          | Strong           | 14            | 4.4   | Strong                 |
| Total                        | 90            | 3.82          | Good            | 90            | 4.3   | Strong                 |

Overall, the therapeutic goals with a score of 4.3 were in the strong range and showed a significant increase compared to the results obtained in 2002. Low scores were due to the lack of hormone tests, electrophoresis, enzymes, proteins, and autoantibodies in the laboratory and the lack of an MRI machine in the radiology ward. Furthermore, low scores of facilities for adjuvant therapies were due to the lack of chemotherapy and radiotherapy facilities in the ward. Compared to 2002, more nutritionists and physiotherapists were available.

Regarding the health goals, the shortcomings were related to the low number of janitors in the ward.

C: Research Goals: When evaluating the research goals, 4 criteria, i.e., the number of supervised theses of apprenticeship and residency programs, attending seminars, submitting papers to medical congresses, and publishing articles in medical journals obtained a score of 5 which was in a very strong range. This score was higher than that obtained in 2002, which was 4.5. This might be attributed to the fact that the department was successful in all the 4 criteria.
D: Institutional and Organizational Status of the Department: Table 6 shows the results of the institutional and organizational status of the Obstetrics and Gynecology Department. In this evaluation, the faculty members, department council, and head of the department were evaluated and the results were compared with those obtained in 2002.

Table 6. Comparing the evaluations of the institutional and organizational status of the Obstetrics and Gynecology Department obtained in 2002 and 2015

| The Evaluated Factors       | 2002 | 2015 |
|-----------------------------|------|------|
|                             | The Number of Criteria | Score | Gorman’s Classification | The Number of Criteria | Score | Gorman’s Classification |
| Head of the Department      | 19   | 4.32 | Strong                   | 19   | 3.92 | Good                   |
| Department Council          | 20   | 3.51 | More than Satisfactory   | 20   | 4.95 | Very Strong            |
| Members                     | 37   | 3.74 | Good                     | 34   | 4.42 | Strong                 |
| Total                       | 76   | 3.85 | Good                     | 73   | 4.43 | Strong                 |

The faculty members obtained a score of 4.42 and were in the strong range. This score was better than that obtained in 2002, which was 3.29. Due to unsuccessful criteria (the educational work experience, the publication of manuscripts in medical journals, and the teaching and research method certification), the overall score was 3.85, which is a good score.

E: Educational space, Human Resources, and Equipment: Table 7 shows the evaluation of the wards related to the Obstetrics and Gynecology Department and its comparison with the results obtained in 2002. The results demonstrated that the educational space, human resources, and the wards obtained a score of 4.38, which is a strong score.

Table 7. Comparing the evaluations of the wards related to the Obstetrics and Gynecology Department obtained in 2002 and 2015

| The Evaluated Factors                        | 2002 | 2015 |
|----------------------------------------------|------|------|
|                                             | The Number of Criteria | Score | Gorman’s Classification | The Number of Criteria | Score | Gorman’s Classification |
| Labor Ward                                   | 29   | 4    | Good                     | 29   | 4.71 | Very Strong            |
| Midwifery and Gynecology Surgery Ward        | 16   | 3.9  | Good                     | 16   | 4.2  | Strong                 |
| Library                                      | 12   | 4.33 | Strong                   | 12   | 4.83 | Very Strong            |
| Educational Units                            | 9    | 3.4  | More than Satisfactory   | 9    | 4.1  | Strong                 |
| Human Resources                              | 46   | 3.88 | Good                     | 46   | 4.1  | Strong                 |
| Total                                        | 112  | 3.9  | Good                     | 112  | 4.38 | Strong                 |
Table 8. Comparing the overall results of internal evaluation of the Obstetrics and Gynecology Department obtained in 2002 and 2015

| The Evaluated Factors   | 2002            | 2015            |
|-------------------------|------------------|------------------|
|                         | Score            | Gorman’s Classification | Score | Gorman’s Classification |
| Educational Goals       | 3.07             | More than Satisfactory | 4.32   | Strong               |
| Therapeutic Goals       | 3.58             | More than Satisfactory | 4.3    | Strong               |
| Research Goals          | 4.5              | Very Strong       | 5      | Very Strong          |
| Educational Process     | 3.2              | Strong            | 3.11   | More than Satisfactory |
| Organizational Status   | 3.62             | Good              | 4.43   | Strong               |
| Human Resources         | 3.88             | Strong            | 4.1    | Strong               |
| Space                   | 3.76             | Good              | 4.4    | Strong               |
| Total                   | 3.7              | Good              | 4.23   | Strong               |

Discussion

The main objective of conducting this study was to examine educational status of the Obstetrics and Gynecology Department of Semnan University of Medical Sciences and compare the results with those obtained in 2002. The factors, criteria, and indices evaluated in this department were in line with national standards and the opinions of the faculty members of the department. The results showed that the department was successful in promoting its educational goals for the residency program compared to 2002; however, it remained in the borderline range considering the apprenticeship program. This has made the whole educational process obtain a score more than satisfactory (3.11). This result indicated that in the apprenticeship program, the educational program faced some problems. However, fortunately, the residency program did not encounter such issues. The educational program for the residents with a score of 5 was in the strong range. The main problem of the apprenticeship program was related to the lack of a practical plan for male graduates, which resulted in a low score.

Teaching via films, moulage, and theory discussion did not fulfill educational goals for male students and achieving educational goals for residents obtained the score 4.32, which was in the strong range. Therapeutic goals with a score of 4.3 were in the strong range of Gorman’s classification and showed promotion compared to 2002, which was more than satisfactory. This score increases by addressing deficiencies in laboratory facilities and adjuvant therapies (chemotherapy-radiotherapy).

The research goals, with a score of 5, indicated a substantial increase compared to the results obtained in 2002. Considering the institutional and organizational status, the department was in the strong range of Gorman’s classification with a score of 4.43, and should continue to work on fulfilling its research goals in a better way.

In terms of educational space, the score was 4.4, which is a strong range; however, the small size of the audiovisual room, the library, and the location of the library resulted in a reduction in the score, which should be improved.

The human resources, with a score of 4.1, were in the strong range of Gorman’s classification and showed promotion compared to the results obtained in 2002; however, the low number of nurses in each shift and the low number of staff in the ward should be addressed.

According to the results of this study, it is not possible to compare the results of internal evaluations of this department with the results of other medical departments in Iran; however, some of the results obtained in different universities can be mentioned. Sayrafi et al. (12) conducted a study in the Dermatology Department of Razi Teaching Hospital affiliated to the Tehran University of Medical Sciences and reported that the overall result of the evaluation was 72.8%. Also, Parsa Yekta et al. (13) carried out a study in the School of Nursing and Midwifery of Tehran University of Medical Sciences and reported that the overall result of the internal evaluation was 80.4%, which was desirable. Moreover, Harden et al. from Dundee University in the UK had positive attitudes towards internal evaluations and quality improvements in clinical education and research (14).

Recommendations

* Appropriate and accurate planning must be done by the MOHME to train male apprentices and residents.

* The fourth-year residents should be sent to referral universities to get acquainted with rare cases.
* The faculty members should be trained for performing specialized laparoscopy.

* The laboratory defects should be fixed.

* The limitations of the educational space should be removed by the authorities.

**Conclusion**

Finally, the Obstetrics and Gynecology Department of Semnan University of Medical Sciences was placed in the strong range of Gorman’s classification with a score of 4.23 obtained by using 40 questionnaires. Although this score was better than that obtained in 2002, there is still a need for making decisive plans to overcome the shortcomings.

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**Conflict of Interest**

Authors declared no conflict of interests.

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