Iran hospital accreditation standards: challenges and solutions

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Abstract
Objective: The purpose of this study was to identify the challenges of Iranian hospital accreditation standards and provide solutions.

Design: A qualitative research design was used in this study. Open and semi-structured interviews were conducted in 2018. Thematic analysis was used to analyse qualitative data.

Setting: Public, private, semi-public, charity and military hospitals in Tehran, Iran.

Participants: A pluralistic evaluation approach was employed and 151 participants including policy makers, hospital management and staff, accreditation surveyors and university professors participated in this study.

Results: Challenges of hospital accreditation standards were grouped into two groups: standards development process and standards content. Lack of an independent standards development committee, insufficient expertise of committee members, inconsistencies among the standards’ constructs, inappropriate standard classification, ambiguity of standards, unmeasurable standards, vague and inflexible scoring system, and inability to use some standards were the main challenges of Iran hospital accreditation standards. Establishing a scientific committee consisting of representative from hospitals, health insurance companies, professional and scientific associations and universities for standard development, training the committee members,
and utilizing hospital’s feedback will help address these problems.

**Conclusion:** Iran’s hospital accreditation standards face challenges that prevent them from achieving their goals, that is, improving the quality, safety, effectiveness and efficiency of hospital services. Necessary measures should be taken to solve these problems.

**KEYWORDS**
accreditation, Iran national hospital accreditation program, pluralistic evaluation, standard

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**INTRODUCTION**

Hospital is a bureaucratic, complex, professional, and multi-functional organization. Patients expect high quality, safe, effective and personalized hospital services. Hence, hospital managers should improve healthcare quality and safety by using appropriate strategies. In addition, the Ministry of Health using licencing, certification and accreditation strategies evaluate and audit the quality and safety of hospital services. Hospital accreditation is defended as ‘systematic external evaluation of a hospital’s structure, processes and outcomes by an independent professional accreditation body using published optimum, evidence-based and achievable standards’. Hospital accreditation encourages the translation of quality and safety standards into practice.

There has been an increasing amount of literature on hospital accreditation during the past 3 decades. The hospital accreditation literature reveals inconclusive, controversial and mixed findings. Some evidences suggest that accreditation has benefits for hospital employees, patients, and the society as a whole. The Hospital Accreditation Program (HAP) enhances employees’ competencies, improves their safety and security, encourages them to implement evidence based practices, improves multidisciplinary team building and effective communication, and enhances employees’ satisfaction and commitment. The HAP is a driver for safeguarding patient rights, improving hospital services quality, reducing nosocomial infections and medical errors, improving patient safety, and lowering patient length of stay and mortality. Finally, hospital accreditation results in a positive organizational culture, good infrastructure maintenance, efficient use of hospital resources, standardization of policies and procedures, improved working processes, better organizational performance, higher organization’s reputation and brand and improved public confidence.

Despite the potential benefits of accreditation, its implementation in hospitals faces challenges. The main obstacles to the introduction and integration of accreditation in hospitals include increased staff workload, and as a result their resistance to change, and the financial burden. A study estimated that an accreditation survey costs a hospital an additional $US 326,784 equal to 1% of its operational budget. As a result, some studies have questioned the HAP efficacy in improving hospital service quality, patient safety, and patient satisfaction.

Iran is a country in the eastern Mediterranean with a population of about 84 million and an estimated GDP per capita of US$ 5520. There are 1002 hospitals in Iran of which 78% are public and 22% private hospitals. Iran HAP, established in 2010, is government funded and mandated. The office for healthcare institutions’ accreditation at Ministry of Health is responsible for developing hospital accreditation standards. The first version of Iran national hospital accreditation standards, published in 2010, was consisted of 37 chapters, 3754 standards and 8104 measurable elements. The focus of standards was mainly on hospital structures and processes and little attention was paid to clinical outcomes and patient satisfaction. The first national hospital accreditation survey was conducted in 2012. The accreditation method was relied only on the field survey by a team of 20 to 25 accreditation
surveyors using the predetermined accreditation standards. Also, accreditation brought some benefits for hospitals such as documenting and improving key processes, improving amenities, and training employees on quality and safety, it encountered some difficulties. Too many standards, less emphasis on organizational and clinical performance, unclear standards and criteria, increased staff workload, demotivated employees, and financial burden of implementing standards caused challenges for hospital managers and employees.

Consequently, accreditation standards changed slightly. The second edition of the standards consisted of 36 chapters and 2157 measurable elements, was introduced in 2014 and the second national accreditation survey was launched in 2014 and 2015. A national survey of 547 hospital managers revealed that only 38% of hospital managers were satisfied with the accreditation results. Insufficient resources, employees' resistance to change, and time shortage were the main reasons for partial implementation of accreditation standards in hospitals. Hospital managers were moderately satisfied with the accreditation standards and methods. They complained about the high number of standards, the weighting method, ambiguity of standards, lack of reliability among surveyors and their low knowledge and experience. Accreditation has increased bureaucracy in hospitals, has taken clinical staffs time and left them with less time for patients and as a result, increased job stress among hospital employees. In addition, hospital accreditation was not linked to hospital productivity.

Accordingly, the accreditation method, accreditation standards, scoring methods, and surveyors' composition were reviewed and corrected. The third edition of the standards consisted of 248 standards and 903 measurable elements, was introduced in 2016 and the third national accreditation survey was initiated in 2016 and 2017. This time hospital self-assessment was added to the accreditation method and a team of three to five accreditation surveyors performed the field accreditation survey. Several studies concluded that the changes applied to Iran hospital accreditation system did not satisfy hospital managers. Too much bureaucracy, cost of implementing standards, hospital managers’ and employee's low motivation, insufficient education and training, and lack of resources were the main barriers to effective accreditation implementation in hospitals.

Previous studies indicated that Iran HAP was less successful in achieving determined objectives. Implementing accreditation standards did not translate into hospital performance improvement and patient satisfaction. Mosaic deghrad and colleagues (2018) analysed the data from 124 hospitals in Tehran province and did not find associations between accreditation scores and nine hospital performance indicators. Pourreza and colleagues (2017) reported no association between implementing accreditation standards in the emergency and accident department and key performance indicators in eight hospitals. Mohebbifar and colleagues (2017) found a negative association between hospitals’ accreditation scores and patient satisfaction in seven hospitals in Hamedan province, Iran.

The HAP has four components: governance, standard, method, and surveyor. The inefficacy of the HAP is related to an ineffective hospital accreditation system (i.e., governance and leadership, accreditation standards, evaluation methods and accreditation surveyors) and inappropriate standards implementation in hospitals. A well-designed and effectively implemented HAP will result in better hospitals performance. The accreditation system should be monitored for causing adverse effects in hospitals. Hospital accreditation standard has a crucial role in promoting high quality and safe hospital services. Apparently, there are some shortcomings with Iran hospital accreditation standards. Finding and addressing these challenges may result in improving hospital services' quality and safety. Therefore, this study aimed to explore the main challenges of Iran hospital accreditation standards and provide solutions. Other countries may learn from Iran's experience of developing and updating accreditation standards.

2 METHODS

A qualitative research design was used in this study. This qualitative research was conducted using the interpretive phenomenology method, which includes three stages of fore-understanding, interrogation and reflection. Semi-structured interviews were used to gain a full and detailed understanding of the challenges of the Iran hospital accreditation standards and possible solutions.
### TABLE 1 Consolidated criteria for reporting qualitative research (COREQ) checklist.

<table>
<thead>
<tr>
<th>No</th>
<th>Item</th>
<th>Guide question/description</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Domain 1: Research team and reflexivity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Personal characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Interviewers/ facilitators</td>
<td>Which author/s conducted the interview or focus group?</td>
<td>Fatemeh Ghazanfari</td>
</tr>
<tr>
<td>2</td>
<td>Credentials</td>
<td>What were the researcher's credentials? For example, PhD and MD</td>
<td>PhD candidate</td>
</tr>
<tr>
<td>3</td>
<td>Occupation</td>
<td>What was their occupation at the time of the study?</td>
<td>PhD student</td>
</tr>
<tr>
<td>4</td>
<td>Gender</td>
<td>Was the researcher male or female?</td>
<td>Female</td>
</tr>
<tr>
<td>5</td>
<td>Experience and training</td>
<td>What experience or training did the researcher have?</td>
<td>Health management and qualitative studies</td>
</tr>
<tr>
<td></td>
<td>Relationship with participants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Relationship established</td>
<td>Was a relationship established prior to study commencement?</td>
<td>No</td>
</tr>
<tr>
<td>7</td>
<td>Participant knowledge of the interviewer</td>
<td>What did the participants know about the researcher? For example, personal goals and reasons for doing the research</td>
<td>The interviewees were given the necessary information about the purpose of the research</td>
</tr>
<tr>
<td>8</td>
<td>Interviewer characteristics</td>
<td>What characteristics were reported about the interviewer/facilitator? For example, bias, assumptions, reasons, and interests in the research topic</td>
<td>The interviewees were given the required information about the educational background of the interviewer and the reason for conducting the research</td>
</tr>
<tr>
<td></td>
<td>Domain 2: Study design</td>
<td></td>
<td></td>
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<td></td>
<td>Theoretical framework</td>
<td></td>
<td></td>
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<tr>
<td>9</td>
<td>Methodological orientation and theory</td>
<td>What methodological orientation was stated to underpin the study? For example, grounded theory, discourse analysis, ethnography, phenomenology and content analysis</td>
<td>Interpretative phenomenologyBraun and Clarke's 6-phase thematic analysis (methods, paragraph 3)</td>
</tr>
<tr>
<td></td>
<td>Participant selection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Sampling</td>
<td>How were participants selected? For example, purposive, convenience, consecutive, and snowball</td>
<td>Purposeful sampling method (methods, paragraph 1)</td>
</tr>
<tr>
<td>11</td>
<td>Method of approach</td>
<td>How were participants approached? For example, face-to-face, telephone, mail, and email</td>
<td>Face-to-face</td>
</tr>
<tr>
<td>12</td>
<td>Sample size</td>
<td>How many participants were in the study?</td>
<td>151 (methods, paragraph 1)</td>
</tr>
<tr>
<td>13</td>
<td>Non-participation</td>
<td>How many people refused to participate or dropped out? Reasons?</td>
<td>No one</td>
</tr>
<tr>
<td></td>
<td>Setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Setting of data collection</td>
<td>Where was the data collected? For example, home, clinic, and workplace</td>
<td>Interviewees workplace</td>
</tr>
<tr>
<td>15</td>
<td>Presence of non-participants</td>
<td>Was anyone else present besides the participants and researchers?</td>
<td>No</td>
</tr>
</tbody>
</table>
TABLE 1 (Continued)

<table>
<thead>
<tr>
<th>No</th>
<th>Item</th>
<th>Guide question/description</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Description of sample</td>
<td>What are the important characteristics of the sample? For example, demographic data and date</td>
<td>Demographic data, job, tenure, education, and accreditation experience year (Table 2)</td>
</tr>
</tbody>
</table>

**Data collection**

| 17 | Interview guide             | Were questions, prompts, guides provided by the authors? Was it pilot tested?              | Yes                                                                    |
| 18 | Repeat interviews           | Were repeat interviews carried out? If yes, how many?                                     | No                                                                    |
| 19 | Audio/visual recording      | Did the research use audio or visual recording to collect the data?                       | Audio recording                                                       |
| 20 | Field notes                 | Were field notes made during and/or after the interview or focus group?                   | Yes                                                                   |
| 21 | Duration                    | What was the duration of the interviews or focus group?                                   | 73 min on average                                                     |
| 22 | Data saturation             | Was data saturation discussed?                                                            | Yes                                                                   |
| 23 | Transcripts returned        | Were transcripts returned to participants for comment and/or correction?                  | Yes to some of them                                                  |

**Domain 3: Analysis and findings**

**Data analysis**

| 24 | Number of data coders       | How many data coders coded the data?                                                      | One person coded the data and the codes was checked by another one    |
| 25 | Description of the coding tree | Did authors provide a description of the coding tree?                                     | Yes                                                                   |
| 26 | Derivation of themes        | Were themes identified in advance or derived from the data?                               | Derived from the data                                                 |
| 27 | Software                    | What software, if applicable, was used to manage the data?                               | Excel                                                                |
| 28 | Participant checking        | Did participants provide feedback on the findings?                                        | Yes, the results of the interviews were presented to some interviewees for feedback |

**Reporting**

| 29 | Quotations presented       | Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? For example, participant number | Yes                                                                  |
| 30 | Data and findings consistent | Was there consistency between the data presented and the findings?                        | Yes                                                                  |
| 31 | Clarity of major themes    | Were major themes clearly presented in the findings?                                      | Yes                                                                  |
| 32 | Clarity of minor themes    | Is there a description of diverse cases or discussion of minor themes?                    | Yes                                                                  |
A pluralistic evaluation approach was used and policy makers, hospital managers, hospital employees, and surveyors who were involved in the developing, implementing and evaluating hospital accreditation standards were recruited using a maximum variation sampling method. Using the pluralistic evaluation approach and gathering the views of multiple key stakeholders led to comprehensive and credible information that would not have been possible if interviewed by any of these groups alone. A total of 151 in-depth face-to-face interviews were conducted from September to December 2018. Interviews were audio-taped and transcribed. Interviewees’ quotes were specified with ‘P’ letter in this paper.

An interview topic guide was developed based on the literature review, pre-pilot and pilot interviews and discussions with the research team. General questions about the strengths and weaknesses of hospital accreditation standards and possible solutions were included in the interview guide. Ten pilot interviews were conducted to improve the interview questions and increase the interviewer’s skills in communicating with the interviewees and increase the validity of the research. Interviews were audio-recorded. Member checks and peer reviews were conducted to ensure the creditability and trustworthiness of the collected qualitative data.

Braun and Clarke’s 6-phase thematic analysis method was used for data analysis.46 All recorded interviews were transcribed verbatim in full. The interview transcripts were read, and initial codes were generated. Similar codes were grouped into sub-themes and then into themes. Finally, the themes and subthemes were refined into a thematic map showing the patterns and relationships among themes and sub-themes.

This study formed a part of a PhD thesis in Tehran University of Medical Sciences. Ethical approval of the study was obtained from the University's Research Ethics Committee (Ethics code: IR.TUMS.SPH.REC.1396.4870). The main ethical issues involved in this study were respondents’ rights to self-determination, anonymity and confidentiality. Respondents were given full information on the purpose and design of the study through a letter. Participants’ participation was voluntary and they could stop participating in the study at any point. Written or verbal informed consent was obtained from all participants. Consolidated criteria for reporting qualitative research (COREQ) checklist is presented in Table 1.

3 | RESULTS

As it is shown in Table 2, most of the interviewees were female (62.3%), with MSc degree (43.1%), between 36 and 40 years old (24.5%) and with 5–10 years of experience in hospital accreditation (42.4%).

The challenges of Iran national hospital accreditation standards were grouped into two themes including 11 sub-themes (Table 3).

3.1 | The process of accreditation standards development

3.1.1 | Lack of an independent scientific committee for standard development

The healthcare institutions’ accreditation office, consists of 8–10 employees, is responsible for developing accreditation standards, planning and performing accreditation surveys and managing hospitals’ complaints about the accreditation results. A manager in a health insurance organization said that. ‘The problem is that 7–8 people have to write the standards, plan the hospital accreditation surveys and deal with the hospitals' complaints’ (p. 147). Dealing with a variety of scientific and executive tasks had a negative effect on the performance of this office. Some of the interviewees believed that the structure of the healthcare institutions’ accreditation office should be changed and each of the accreditation office tasks should be assigned to a specialized committee. A university lecturer said, ‘There should be a policy making council and at least a scientific committee for the development of
A scientific committee of experts with accreditation knowledge and skills should be responsible for developing Iran national hospital accreditation standards. A private hospital manager stated that, ‘There should be some sub-committees to deal with various tasks of hospital accreditation. One sub-committee should be responsible for developing standards. A scientific committee should make the final decision. University professors and representatives of hospitals, medical and nursing associations should be members of such a committee. If the standards are approved by relevant associations and councils, they will be accepted and implemented by hospitals more quickly’ (p. 62).

A team of people from hospitals, universities, and ministry of health was formed to develop and revise accreditation standards. Some interviewees believed that those who agreed with the healthcare institutions’ accreditation office were invited to develop the standards. The quality manager of a university hospital said that, ‘The participation of a number of hospital and university employees, managers and lecturers in the standard development team does not mean that the best experts participated. Most experts were not invited because they were critical of the accreditation program’ (p. 73).

### TABLE 2  Demographic characteristics of the research participants.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td><strong>Job</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>57</td>
<td>37.7%</td>
<td>Accreditation managers and staffs</td>
<td>9</td>
<td>5.9%</td>
</tr>
<tr>
<td>Female</td>
<td>94</td>
<td>62.3%</td>
<td>University faculty members</td>
<td>10</td>
<td>6.7%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td><strong>Hospital managers</strong></td>
<td>48</td>
<td>31.8%</td>
</tr>
<tr>
<td>25–30</td>
<td>21</td>
<td>13.9%</td>
<td>Physicians</td>
<td>15</td>
<td>9.9%</td>
</tr>
<tr>
<td>31–35</td>
<td>31</td>
<td>20.5%</td>
<td>Hospital quality officer</td>
<td>33</td>
<td>21.9%</td>
</tr>
<tr>
<td>36–40</td>
<td>37</td>
<td>24.5%</td>
<td>Accreditation surveyor</td>
<td>21</td>
<td>13.9%</td>
</tr>
<tr>
<td>41–45</td>
<td>34</td>
<td>22.5%</td>
<td>Insurance company managers</td>
<td>6</td>
<td>3.9%</td>
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<tr>
<td>46–50</td>
<td>15</td>
<td>9.9%</td>
<td>Accreditation standards committee</td>
<td>9</td>
<td>5.9%</td>
</tr>
<tr>
<td>51–55</td>
<td>13</td>
<td>8.6%</td>
<td></td>
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<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td><strong>Accreditation experience years</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSc</td>
<td>29</td>
<td>19.2%</td>
<td>3–5 years</td>
<td>23</td>
<td>15.2%</td>
</tr>
<tr>
<td>MSc</td>
<td>65</td>
<td>43.1%</td>
<td>5–10 years</td>
<td>64</td>
<td>42.4%</td>
</tr>
<tr>
<td>PhD</td>
<td>57</td>
<td>37.7%</td>
<td>11–15 years</td>
<td>43</td>
<td>28.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16–20 years</td>
<td>21</td>
<td>13.9%</td>
</tr>
<tr>
<td><strong>Work experience</strong></td>
<td></td>
<td></td>
<td><strong>Office</strong></td>
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<td></td>
</tr>
<tr>
<td>3–5 years</td>
<td>9</td>
<td>5.9%</td>
<td>Ministry of Health</td>
<td>5</td>
<td>3.4%</td>
</tr>
<tr>
<td>6–10 years</td>
<td>28</td>
<td>18.5%</td>
<td>University of Medical Science</td>
<td>24</td>
<td>15.9%</td>
</tr>
<tr>
<td>11–15 years</td>
<td>32</td>
<td>21.2%</td>
<td>Hospital</td>
<td>116</td>
<td>76.8%</td>
</tr>
<tr>
<td>16–20 years</td>
<td>24</td>
<td>15.9%</td>
<td>Health insurance</td>
<td>6</td>
<td>3.9%</td>
</tr>
<tr>
<td>21–25 years</td>
<td>23</td>
<td>15.2%</td>
<td></td>
<td></td>
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<tr>
<td>26–30 years</td>
<td>22</td>
<td>14.6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31–35 years</td>
<td>13</td>
<td>8.6%</td>
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</tbody>
</table>
Interviewees did not evaluate the composition of the standards development team independent. They believed that team members should have sufficient knowledge and experience of hospital activities and theories of evaluation and accreditation. An accreditation surveyor who was also a member of the standards development team said, ‘Accreditation in our country is political. There is an office in the ministry of health for each department of a hospital. Managers of these offices did not like to see that there are less standards related to their specialty in the hospital accreditation standards. They forced us to increase the number of accreditation standards’ (p. 11). Consequently, hospital managers are asked to implement the standards. The manager of a private hospital said, ‘If the Ministry of Health fails to compel hospitals to enforce regulations, it will set them to accreditation standards and ask hospitals to comply. For example, according to the regulation, hospitals must reduce their rate of cesarean section by ten percent annually. If they do not, their accreditation grade will decrease and health insurance company will pay them less’ (p. 69).

3.1.2 | Limited knowledge of committee members about hospital accreditation standards

The lack of a specialized committee for the development of accreditation standards was a major problem. Some interviewees believed that accreditation standards were written by those who had less knowledge and skills in management, evaluation, accreditation and systems thinking. The quality manager of a hospital said, ‘The staffs of healthcare accreditation office in the ministry of health and medical universities are responsible for hospital accreditation policy formulation and implementation. Most of them do not have the specialized knowledge in this field’ (p. 72). The quality of accreditation standards depends on the quality of the standards development team. A university lecturer articulated this by saying, ‘The staff of the accreditation office were experts in the fields of health and medical sciences. They had limited knowledge in evaluation and accreditation fields. For example, a urologist was in the standard development team, so the number of dialysis standards was high. The number of standards was low in areas where there was no expertise in the team’ (p. 47).
Hospital accreditation standards of other countries should be benchmarked for the development of Iran national accreditation standards. An interviewee believed that, 'Team members must have the knowledge and skills in research methods and systematic review in order to be able to use the successful experiences of pioneer countries' (p. 39). Lack of knowledge and experience in the field of hospital accreditation led to the weakening of accreditation model and standards. An interviewee said that, 'The first version of the accreditation standards in 2010 was departmental. It included more than 8000 measurable elements for 37 hospital wards. Most countries at the time used the functional method and had fewer accreditation standards. Team members had limited knowledge of the theory and practice of evaluation and accreditation' (p. 47).

The accreditation standard should cover a specific topic. However, some accreditation standards included a national program that itself had dozens of standards. A faculty member stated that, 'Various departments of the Ministry of Health introduced programs such as mother friendly hospitals initiative, baby friendly hospital initiative, safe surgery protocol, etc. They set the programs in accreditation standards so that hospitals were forced to implement them. They set a standard for each program, while each program contains several standards. Some standards were not written using a SMART approach. Some measurable elements were standards themselves' (p. 47).

The limited expertise of the standard development team led to the production of several versions of accreditation standards that posed challenges for hospital managers. A faculty member said, 'The number of measurable elements of the first edition of the accreditation standards was about 8000, which was reduced to 2000 and then 900 measurable elements in the second and third editions. I do not know by what criteria the number of measurable elements decreased from 8000 to 900 during 6 years. Most of the standards were also structural' (p. 43). The hospital accreditation model and its main constructs were changed in these three times. A university professor said, 'A comprehensive hospital accreditation model should be designed and the standards should be included under the constructs of this model. The main constructs of the model should not change every time. Standards should be updated periodically' (p. 47).

Respondents believed that key hospital stakeholders should be involved in the accreditation council and committees. One health insurance staff suggested that, 'Developing accreditation standards is the result of teamwork. Representatives of various departments of the Ministry of Health should be present in the Scientific Accreditation Committee to ensure that there is no inconsistency between accreditation standards and the laws and regulations' (p. 53).

### 3.1.3 | Ambiguous standard development process

The healthcare institutions' accreditation office formed a team of policy makers, hospital managers, surveyors, and university professors to develop or revise standards. An interviewee who was involved in the process of standard development said, 'There is a group of people we ask about the standards. There is no formal appointment for them. For instance, for writing mother and child care standards, we seek the opinions of the mother and child health and the obstetrics departments at Ministry of Health. They gave us a list of standards. After some changes, we put them in the accreditation standards Book' (p. 17). As a result, the team members were not fully committed and did not actively participate.

There was no detailed agenda for standards development meetings. Therefore, team members did not come to the meetings fully prepared. A team member said that, 'Only one invitation letter was sent to us to attend a meeting at a specific time. We did not know what the topic of the meeting was and what standards we should talk about. They did not send us any related documents before the meeting so that we could go to the meetings prepared' (P.13). The president of a private hospital confirmed it by saying, 'The hospital matron [nurse administrator] came to me in a hurry and said that she was informed yesterday that she should go to the Ministry of Health for a meeting on nursing accreditation standards. I asked him if she had studied the standards. She said she was busy in the hospital and did not have the opportunity to do so' (p. 62).
The director of healthcare institutions' accreditation changed four times during 2010 and 2016, the standard development team members were changed accordingly and as a result the accreditation standards changed four times. An accreditation consultant said that, 'Each time the hospital accreditation director changed, the accreditation model and standards also changed' (p. 43). An accreditation surveyor who was also a member of the standards development team stated, 'The standard development team has changed several times. The last team did not have the knowledge and experience in hospital evaluation and accreditation. They wrote the standards by trial and error' (p. 11).

Adopting and adapting pioneer and leading accreditation bodies' hospital accreditation models and standards and then editing them every three years based on the results of evaluations can prevent some of these challenges. A University faculty member said, 'There should be a consistent and logical procedure for reviewing standards. Standards should be written correctly once and then reviewed every three years based on received feedback and changes in laws, regulations and technologies' (p. 17).

3.2 | The content of accreditation standards

3.2.1 | Inconsistencies among the accreditation standards' constructs

The limited knowledge of the standard development team caused a lack of logical connection between the constructs of the standards. Interviewees provided examples of inconsistencies between constructs and sub-constructs of the standards. The manager of catering department in a private hospital said, 'Sub-constructs in management and leadership construct include governance team, executive team, risk management, nutrition management, disaster management, supply management, quality control, human resource management, and patient safety. There is no consistency among the construct and its sub-constructs. Furthermore, the facilities sub-construct is included in both management and leadership and patient rights constructs' (p. 103).

Interviewees in several cases questioned the integrity and rationality of standards development: 'There is a standard as » Responses to the urgent clinical test are managed properly in the laboratory management sub-construct [S: V-1-6], but there is no similar standard for imaging services management sub-construct’. (p. 39); 'There are some overlapping standards. For example, in the executive management team sub-construct, there is standards for committees to be held for major activities of the hospital [S: A-2-5] and there is also a standard for holding mortality committee in the hospital risk management sub-construct [S: A-4-4] and emergency committee [S: B-2-8] in the emergency care sub-construct' (p. 130).

There is also a mismatch between the content of some standards and their measurable elements. A public hospital matron said, 'A standard says that » the hospital provides the requirements needed for routine neonatal care in high-risk deliveries [S: B-5-7] «. The purpose of this standard is to make sure that lifesaving treatment is provided by physicians skilled in advanced neonatal resuscitation. This standard has two measurable elements and five steps to be followed for implementation. None of them are directly related to the standard’ (p. 72).

There are rules for developing hospital accreditation standards. A university lecturer noted that, 'A system's approach should be used to develop accreditation standards. What we want from the implementation of accreditation standards is the results part of the accreditation system. What is needed to achieve these results is the enablers' part of the accreditation system. Then, the constructs and sub-constructs of each of these enablers and the results must be identified to complete the hospital accreditation model. Finally, the standards measurable elements should then be written below the sub-constructs. Each standard typically has 4 to 10 measurable elements to measure the standard' (p. 47).
3.2.2 | Inclusion of licencing standards

Existence of licencing standards increased the number of accreditation standards, which posed many challenges for hospitals. A physician said, ‘Some of the hospital accreditation standards are as: Is the hospital licenced to operate [ME: A-1-1-1]?: Does the hospital manager have a valid licence [ME: A-2-9-1]?: Do doctors have a medical licence [ME: A-1-1-4]?: Does the emergency department have a separate door [ME: B-2-6-1]?: Does the door have a sign [ME: B-2-6-4]?: These are more similar to the licencing standards. If the level of accreditation standards decreases, all hospitals will be easily accredited’ (p. 49).

The large number of standards confused hospital managers and surveyors during the standard implementation and evaluation. A hospital quality manager stated, ‘We need resources and time to comply with the standards. It is difficult to implement a large number of standards due to the lack of resources. Many hospitals superficially implemented the standards to be accredited’ (p. 9). It was very costly to implement these standards especially during the economic recession. A private hospital manager stated, ‘A standard says the slope of the hospital ramp should be 7% [ME: A-8-5-3]. The hospital ramp is right under the water storage tank. It is impossible to change it now. Applying these standards is impractical and costly’ (p. 62). As a result, the Ministry of Health decided to not evaluate some of these costly standards. An interviewee who was also involved in the accreditation standard development stated, ‘Some of the standards, which were time-consuming and costly to implement, were abandoned during the country’s financial crisis’ (p. 17).

Most of the interviewees suggested that separating the licencing standards from the accreditation standards would reduce the number of standards, ‘Licensing standards should be listed in a separate Hospital Licensing Book and used as a hospital Licensing program and prerequisite for the accreditation program’ (p. 33). A faculty member also suggested this solution, ‘There should be a hospital licencing program so that hospitals are evaluated at the outset with a number of minimum structural and process standards. Then, the accreditation program evaluates the hospitals with 300 to 400 optimal measurable elements every three years’ (p. 47).

3.2.3 | Improper grouping of standards

Accreditation standards were divided into three levels: mandatory, essential, and ideal. Hospitals must meet all mandatory standards. If they are not met, the hospital will not be accredited. The essential standards are the major part of the hospital accreditation standards and should be fulfilled by hospitals. The ideal standards are presented in a separate book and must be met by hospitals seeking top great grade. The mandatory standards were in fact, licencing standards that were time consuming and costly to implement. A hospital quality manager said, ‘It was difficult to implement some of the mandatory standards. Thus, the surveyors were told to not evaluate them. Only the essential standards were evaluated’ (p. 9). A hospital accreditation surveyor also confirmed it by saying, ‘The classification of standards into mandatory, essential and ideal was a major problem. Most of the mandatory measurable elements were related to licencing, and their implementation was costly and time consuming. Thus, we were told to not assess them. Accreditation makes no sense if the hospital has licencing problems’ (p. 85).

Interviewees suggested that accreditation standards should be prioritized. A step-by-step approach is crucial in developing and implementing more effective standards. More advanced standards should be added over time as hospitals’ conditions improve (p. 4, 9, 46, 47).

3.2.4 | Unbalanced standards and measurable elements

A systems approach should be used for developing hospital standards. In other words, standards should cover the structures, processes and outcomes of a hospital. Iran national hospital accreditation standards basically covered
the hospital structures and processes and less attention was paid to outcome standards. An interviewee who was involved in standard development process said, ‘the number of outcome standards and measurable elements was very low. We could not evaluate the hospital performances in depth’ (p. 15). A private hospital manager mentioned, ‘The standards and measurable elements do not measure hospital outcomes and its effectiveness. They mainly evaluate (hospital) structures. It does not matter if these structures lead to the result’ (p. 62).

Some standards have only one measurable element, while each standard is expected to have several measurable elements. The quality officer in a private hospital said, ‘One standard says that the hospital has a colour-coding system for patients’ medical records [S: Z-1-12]. This standard has a measurable element saying the hospital used a colour-coding system for patients’ 18 medical records’ (p. 118). A surveyor had the same remark, ‘There is a standard saying that there is easy and safe access to blood bank [ME: B-2-4-3] and its single measurable element reads there is easy and safe access to that department all day long’ (p. 131).

Participants in this study believed that the number of structural, process and outcome standards should be sufficient and consistent. An interviewee said that, ‘A standard should have several measurable elements to fully evaluate the subject matter. For example, the plan-do-study-act cycle should be considered in writing the measurable element associated with each standard. In addition, eight indicators of effectiveness, efficiency, safety, equity, patient-centeredness, timeliness, employee orientation and continuity can be used for measurable elements. Standards should be written to allow for the development of 6 to 10 measurable elements’ (p. 47).

3.2.5 | Vague and unclear standards

Respondents also expressed the problem of ambiguity of standards and measurable elements. A quality manager stated, ‘Some ambiguous terms were used in the standards. For example, the term process owner is used for several purposes. In one standard, the process owner was considered as a healthcare service provider. In another standard, it is considered as a supervisor. The meaning of the word is ambiguous and confuses the reader’ (p. 8). The matron of a private hospital gave another example: ‘There are some standards for mother and child care sub-construct. It is not clear who should be responsible for enforcing these standards in the hospital? The maternity block, obstetrics ward or neonatal ward should take care of these standards’ (p. 23). Furthermore, there is also no consistency between the standard and its measurable elements in some cases. The education director in a hospital stated that, ‘The word management is used in many standards. While in their measurable elements you do not see the management functions’ (p. 41).

3.3 | Vague and inflexible scoring system

A scoring system of 0 (non-compliant) and 1(compliant) is used for Iran national accreditation standards. Most interviewees argued that such an approach is not appropriate for the hospital accreditation standards: ‘The level of compliance with the standards is given a score 0 or 1. A binary scoring system do not reflect a hospital performances properly’ (p. 56). Some interviewees proposed a 3-point, 5-point and even 10-point scales for scoring hospital standards (p. 3, 8, 14). A university professor said, ‘A 10-point scale should be used to enable a surveyor to evaluate the structures, processes and outputs/outcomes of a measurable element’ (p. 47).

Many interviewees complained about the standard weighting method. They believed that weighting standards helps them to implement those standards that would have a greater impact on quality. An accreditation surveyor said, ‘Weighting measurable elements are completely vague, so that neither surveyors nor hospital managers know how it is done. In other countries, the evaluation system, scores and weights are clear so that both sides understand what to do’ (p. 35). Another surveyor said, ‘I give a score of “1” to • The food is served in a porcelain dish • criteria on one side, and give also a score of “1” to “An anaesthesiologist is present during the
patient’s anaesthesia” criteria on the other side. These two measurable elements receive equal points, while having different values’ (p. 123).

Some interviewees believed that the accreditation score did not reflect the performance of the hospital. A hospital quality manager said, ‘I was shocked when I saw the result of the hospital accreditation score. We have been given score in some areas that we were certain that we should not be given high scores and vice versa’ (p. 29). The quality manager of another hospital said, ‘We know the weaknesses of our hospital better. We got high scores in some areas where we were weak. In contrast, in some places where we were strong, we scored less. The method of accreditation scoring is not clear to us’ (p. 128).

Interviewees suggested that an objective and scientific method should be used to determine the accreditation scoring method. A hospital manager stated, ‘Different standards should have different weights. The weighting process should be done by a professional team with adequate attention to the relationship between the constructs, sub-constructs, standards and measurable elements. The weighting method should be clear to hospital managers and surveyors. In this case, we know how to use our limited resources to implement the standards’ (p. 92). A faculty member also said, ‘The standard weight should be determined based on the importance of its effect on the quality and safety of hospital services. An expert group must determine the weight of the standards’ (p. 47).

Furthermore, Hospital managers and staff also believed that the Hospital Accreditation Standards Handbook should be more detailed to help them apply the standards more easily. A hospital quality manager said, ‘The Accreditation handbook should have more details and managers and surveyors should be adequately trained to have the same understanding of standards’ (p. 64).

3.3.1 | Inability to use some standards

There are a variety of hospitals including public, private, semi-public, charity, military hospitals or general and specialized hospitals in Iran. Some interviewees believed that some of the standards were not applicable in their hospitals. For example, the quality manager of a hospital said, ‘Standard wants two governance and executive management teams to be formed in the hospital, each with responsibilities. However, in our (public) hospital, we just have an executive management team. I have to prepare a series of fake documents to get the standard score’ (p. 91).

Structural and cultural differences in hospitals must be taken into account in developing standards. The CEO of a private hospital said, ‘Basically, it is not possible to give the strategic plan of the hospital to all employees to read it and know it completely as the standard requires. Hospital staff with primary education will not understand the specialized terms of the strategic plan’ (p. 62). The quality manager of a hospital also gave more examples: ‘Standard wants the hospital nutritionist to be present in the hospital wards while serving food to patients. Adequate education should be given to patients and a form should be signed by the patient. Food should be served to patients in porcelain. We do not have sufficient resources to implement these standards’ (p. 7). Respondents suggested that representatives from each of these hospitals be present on the Standards Committee to ensure that the standards are applicable to all hospitals. They also believed that the standards should be piloted in some hospitals representing the country’s hospitals to identify and correct their shortcomings.

4 | DISCUSSION

This study aimed to explore the main challenges of Iran hospital accreditation standards. The challenges of Iranian hospital accreditation standards were related to the process of developing standards and the content of standards. Inconsistencies among the standards’ constructs, inclusion of licencing standards, inappropriate standard classification, unbalanced standards, ambiguity of standards, unmeasurable standards, vague and inflexible scoring system,
and inability to use some standards have been some of the weaknesses of Iran hospital accreditation standards. Lack of an independent accreditation scientific committee, limited knowledge of committee members about hospital accreditation standards, and ambiguous standard development process were the main reasons for these weaknesses.

Previous studies in Iran also pointed out the shortcomings of accreditation standards such as the large number of standards, and their ambiguity. This study identified more weaknesses in Iran hospital accreditation standards and highlighted the reasons for their occurrence. Therefore, one of the reasons for not achieving the desired HAP results is the weaknesses of accreditation standards. In countries where good accreditation standards have been developed and implemented, good results have been observed in the quality, safety and efficiency of hospital services.

The validity of the HAP depends on its standards, methods and surveyors. Sustaining the positive outcomes of a HAP in developing countries requires a functioning accreditation body, dedicated funds, government support and commitment to quality hospital services and ongoing technical assistance to hospitals. Developing countries suffer from resource scarcity, insufficient expertise and political instability that cause challenges in initiating and sustaining HAPs. Therefore, it is better to use a combination of licencing, evaluation and accreditation programs in developing countries, to assure the quality and safety of hospital services. Hospitals should be licenced first so that they can start their activities. Then, a mandated evaluation program using minimum standards should be used and gradually a voluntary accreditation program using optimum standards should be introduced. As hospitals in developing countries are facing resources and competencies scarcity, using such an approach would be more feasible and will result in better outcomes.

Hospital accreditation is currently the main quality and safety mechanism in the Iranian health system. The Ministry of Health is committed to improving the quality of hospital services and subsidizing the HAP. All hospitals are accredited for free almost every two years. Currently, the office for healthcare institutions’ accreditation at Ministry of Health, is dealing with developing and upgrading standards, planning accreditation surveys and managing complaints. The structure and governance of Iran national hospital accreditation body should be strengthened and made independent. At least, one accreditation council and three independent committees should be formed for standard development, accreditation surveys, and appeals management. The Accreditation Council, which includes representatives from government regulatory agencies, hospitals, medical, nursing and allied clinical services professional organizations, practitioners, and the public, should be responsible for governing the accreditation program and its overall direction. The technical committee made up of representatives from health-related scientific associations and academic organizations should be responsible for draughting, periodic review, and updating accreditation standards, as well as producing training and guidance documents for hospitals. The accreditation committee should manage the hospital accreditation process and provide the necessary documents for the accreditation council to decide about the outcome of a hospital’s accreditation status. The appeals management committee should deal with hospitals’ appeals against their accreditation results.

This study showed that the technical committee was not independent enough and its members did not have the required expertise for developing valid and reliable accreditation standards. Representatives from scientific and professional associations such as medical universities, medical council, nursing organization, and insurance companies should be involved in this committee. Relevant training, especially in system thinking and standard-writing, should be given to committee members.

The hospital accreditation focus in Iran is more on structure and processes rather than actual outcomes. The first edition of hospital accreditation standards had 3754 standards and 8104 criteria and placed more emphasis on structures and processes rather than the outcome standards. Hospital managers and staff do not have sufficient resources to meet all standards. As a result, the standards are superficially implemented a few weeks before the field survey. It is strongly recommended to take a functional approach to the development of standards and start with relatively applicable standards. The focus should be on a limited number of high impact standards.
standards rather than taking a comprehensive approach and putting too many standards in the HAP. Thus, fewer standards should be introduced at the beginning of the accreditation program and gradually they should be updated. Hospital managers and staff should be given adequate time to improve their performance and enforce standards.

A balanced system approach was not used to develop Iranian accreditation standards. A systems approach should be used in designing the hospital accreditation model covering the structures, processes and outcomes. Mosadeghrad (2018) developed a hospital accreditation framework consisting of 11 constructs; of which seven are enablers (i.e., leadership and management; planning; education and training; employee management; patient management; resource management; and process management) and four are results (i.e., employee results; patient results; society results; and hospital results). This model covers the main structures, processes and outcomes of the hospital and can be used as a framework for developing hospital accreditation standards.

There is little coordination between Iranian hospital accreditation standards. Accreditation standards should target the hospital, the wards, and the teams, along with individual employees. A three-dimensional model including structures, processes, and outcomes; planning, implementation, and evaluation; and organization, team, and individual staff should be considered in developing standards and measurable elements (criteria). Additionally, the measurable elements should cover at least eight quality indicators (i.e., effectiveness, efficiency, safety, timeliness, equity, patient-centeredness, employee orientation, and continuity). Such an approach enhances the credibility of the hospital accreditation standards and would improve hospitals’ organizational and clinical performance. Quality improvement should be emphasized in standards development.

Hospital accreditation standards should be standard themselves. Evidence based mechanisms are needed for developing, reinforcing, auditing and evaluating accreditation standards. The International Society for Quality in Health Care (ISQua) through its International Accreditation Program (IAP) is responsible for accreditation of healthcare accreditation bodies and their accreditation standards. Hence, Iran national hospital accreditation standards should meet ISQua requirements. Compliance with ISQua standards will result in open, inclusive and transparent processes for developing hospital standards (Table 1).

Accreditation alone is not enough to improve the quality, safety and efficiency of hospital services, especially in developing countries. Hospital accreditation is an external evaluation strategy and has to be completed with an internal quality management strategy to achieve better clinical and operational outcomes. Hence, managers should use quality management models to implement accreditation standards successfully. Implementing accreditation standards require managers’ and employees’ commitment and involvement. Managers should plan for implementing standards, create the right organizational structure and culture, educate and train employees, provide the necessary resources and lead the change required for implementing standards.

5 | CONCLUSION

Hospital accreditation has transferred from high-income to middle- and low-income countries and has been challenging. The efficacy of a HAP depends on the quality of its standards, the evaluation method and the quality of the surveyors. Lack of an independent standards development committee, insufficient expertise of committee members, inconsistencies among the standards’ constructs, inappropriate standard classification, ambiguity of standards, unmeasurable standards, vague and inflexible scoring system, and inability to use some standards were the main challenges of Iran hospital accreditation standards. Establishing a scientific committee consisting of representative from hospitals, health insurance companies, professional and scientific associations and universities for standard development, training the committee members, and utilizing hospital’s feedback will help address these problems.
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CONFLICT OF INTEREST STATEMENT
All authors have completed the ICMJE uniform disclosure form and declared: no disclosure for the submitted work. Second author was former director of healthcare accreditation at Ministry of health, Iran. No other relationships or activities that could appear to have influenced the submitted work.

ETHICS STATEMENT
The study was approved by the research ethics committee of Tehran University of Medical Sciences.

AUTHOR CONTRIBUTIONS
The first and the second authors conducted the study, collected, managed, analysed and interpreted the data. All authors were responsible for study design, interpretation of data, and critical article revision and approval. The first author had full access to all data and takes responsibility for the integrity of the data and the accuracy of the data analysis.

DATA AVAILABILITY STATEMENT
The data that support the findings of this study are available from the corresponding author upon reasonable request.

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