



Developing of National Accreditation Model for Rural Health Centers in Iran Health System

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Abstract

Background: The primary health care has notable effects on community health and accreditation is one of the appropriate evaluation methods that led to health system performance improvement, therefore, this study aims to developing of national accreditation model for rural health centers in Iran Health System.

Methods: Firstly the suitable accreditation models selected to benchmarking worldwide via systematic review, the related books and medical university's web site surveyed and some interviews hold with experts. Then the obtain standards surveyed from the experts' perspectives via Delphi technique. Finally, the obtained model assessed via the experts' perspective and pilot study.

Results: The researchers identified JCAHO and CCHSA as the most excellent models. The obtained standards and their quality accepted from experts' perspective and pilot study, and finally the number of 55 standards acquired.

Conclusion: The designed model has standards with acceptable quality and quantity, and researchers' hopeful that its application in rural health centers led to continues quality improvement.

Keywords: Healthcare, Rural centers, Accreditation Model, Iran

Introduction

The management scientists have consensus that planning, organizing, leadership and control are the main managerial tasks. In control task, the organizational functions and activities compare with targets and standards that determined in planning task and the breeding activities done with observe a deviation. Therefore, the organization required to develop suitable methods and tools to monitoring, assessment and evaluation of delivered services(1).

Accreditation is the most powerful tool to evaluation that firstly was born in health services filed and then extended to other fields such as industry and educational services. The accreditation defines as recognition of meet to pre-determined and excellent standards from a health care organization

by the external peer reviewer from the same organizational level(2, 3).

In a various filed, accreditation is recognized as a symbol of quality and indicates that the organization meets certain performance standards, therefore provide an opportunity to organizations to evaluate their operation against national or international standards(4).

The main objectives of accreditation system are continuous quality improvement in service delivery via determining of optimum and achievable goals and standards, making integration in health care management, making database for health care information, increase safety for patient and health providers, delivering educational and consultant services to health care organizations, increase pub-

lic confidence to health services and reduce the health services cost by focusing on efficiency and effectiveness(5, 6).

A glimpse to world health report in 2000 indicates that Iranian health system performance in main health indicators such as equity, responsibility and etchas unacceptable situation, so that Iranian health system is ranked over than 100 in the world, and this facts required to more attention of managers and policy makers and their improving interventions(7).

By regarding to notable impacts of accreditation on main performance indicators in health system, no doubt that one of the best intervention is developing and implementation of a national accreditation program, because the current Iranian evaluation standards are not premium and comprehensive standards. Furthermore, this weakness especially in primary care evaluation system is more evident and Iranian health system had great neglect from this sector(4, 8).

According to these facts, the aim of this study was developing of national accreditation model to Iranian rural health centers for stimulating the continuous quality improvement and betterment in main performance indicators in health system.

Materials & Methods

This is a descriptive study conducted in Eastern Azerbaijan in 2013. By using ofsystematic review, the researchers determined the best accreditation models worldwide for benchmarking to develop anappropriateaccreditation model.

SID, Ovid MEDLINE and PUBMED databases had been searched with key words of Accreditation, PHC, Medical practice, Clinic, Accreditation models and Health care. This strategy resulted in 2369 articles. The inclusion and exclusion criteria was articles in English and Persian language, assessing accreditation models, and considering advantages and disadvantages of various accreditation models. First of all, titles of all articles were reviewed and 826 articles were excluded due to inconsistency with the study aims and 42 articles

were excluded for repetition in both MEDLINE and PUBMED databases (6).

After that the abstracts of 1501 remained articles were reviewed and 747 excluded because of focus on stakeholders perception about general issues in accreditation and methodology. All 736 articles that assessed accreditation models at any setting and level of health care system were reviewed and 681 articles were excluded because of no mention the advantages and disadvantages of accreditation models. As a final point, considering all inclusion and exclusion criteria, 73 articles remained of most relevant to the topic and study aims (Fig. 1)(6).

Moreover, Google scholar, most relevant websites and library search have be done for electronic sources, reports (3 reports) and books (7 books) related to the study aim.Finally, the content of the remaining 73 articles and 10 other sources were separately reviewed (6).

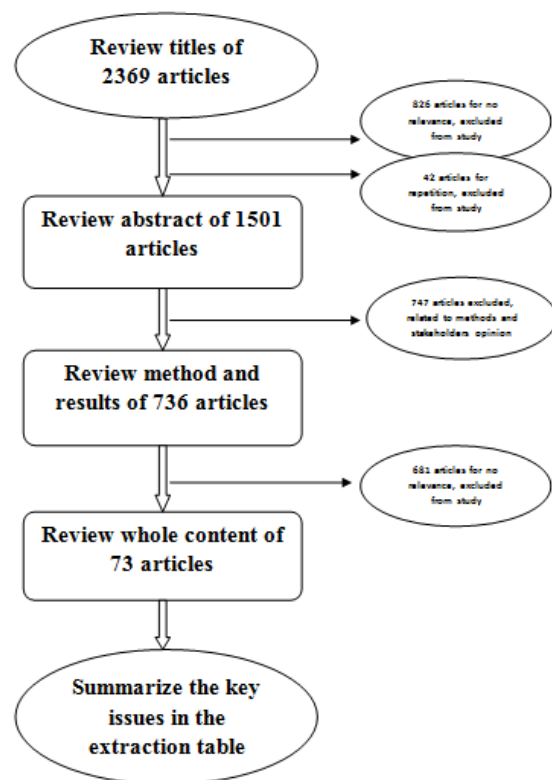


Fig. 1: Systematic Review approach for searched articles

Then, the researcher studied the Iranian Medical Sciences Universities web sites to obtain suitable standards for evaluation of this health care centers and generally to primary health care centers. Furthermore, the researchers to using of all data gathering methods and creating the valuable and acceptable accreditation model assessed the main textbooks related to primary health care and health administration in English and Persian languages and making single and plural interview with health management experts, and finally the all of standards used in design of Delphi questionnaire.

In continue, for assessing the competency of each standard for presence in final accreditation model

from the experts perspectives by regarding to “importance” and “being practical” of standards via the Delphi Technique.

The experts of this study are the individuals with valuable academic and scientific experiences including the main expert in regional and provincial health centers, the academic professors in health services managements, the managers of huge research centers, the Iranian health management and economy board members, the hospital managers with notable experienced and the previous and current accreditation models experiences, and evaluation systems designer in health systems (Table 1).

Table 1: The characteristics of participated experts

Responders	Frequency	Percentage
The main experts in regional and provincial health centers	17	37
The academic professors in health services managements	6	13
The managers of research centers	3	6.5
The Iranian health management and economy board members	4	8.7
The hospital managers	11	24
The accreditation models and evaluation systems designer in health systems	5	10.8

The Delphi technique has some features such as existence of expert panel, the ability of responses repetition to questionnaires in unlimited rounds with getting feedbacks from previous rounds, statistical analysis of responses and anonymous of participants. Another advantage of this technique is the ability of gathering ideas and opinions of experts that have long geographical distance with low cost (9-12).

Also, there is no agreement on consent threshold in Delphi technique, but the majority of experts have agreed that the similarity of 70 to 80 percent of responses shows consent(9, 13). By regarding that the using scale in this study has 9 degree, thus we must elect the point of 5 as neutralize point and the responses have 3 categories: the phase of no agreement with the score of 1 to 3, the neutralized phase with the score of 4 to 6, and the phase of agreement with the score of 7 to 9. In this category, the standards with the scores (median) of

low than 4 eliminate from study, the standards with high than 7 accepts, and the standards with the scores between 4 to 7 advent to next round of Delphi technique(14).

By regarding to literature review and for sustain of study validity, the response rate must be upper than 70 percent in all round of study(15), and if the change of two sequence rounds is less than 15 percent, the consent was done and the standards don't go to next rounds(11).

After obtaining to final standards, the quality of designed model assessed by using of quality indicators, then the components and framework of complete accreditation model will designed to new model. In the final phase of study, the researcher acting pilot study in 3 rural health centers for determining strengths and weaknesses of designed model and the problems of model will resolve.

Results

By regarding to defined inclusion and exclusion criteria, the result of this study was 2379 articles and by notice to study aim that was mention of these articles to advantages and disadvantages of accreditation models, the articles were studied by reading the titles, abstracts and full articles in turns and finally the number of 83 articles selected and

analyzed, then the results that obtained from them enter to extraction tables. In next level, the grand accreditation models in the world compared with themselves by 25 items and final study conclusion was obtained from this comparison(6). The comparative items that analysis was based on them include of accreditation purposes and some items that extract from the literature review.

Table 2: The comparison between accreditation models based on 25 defined indicators

Accreditation Model	JCAHO	CCHSA	ACHS	ANAES	QHNZ	UK
Indicators						
Effect on quality improvement	****	**	**	*	*	*
Effect on safety improvement	****	**	*	*	*	*
Improving health care management integration	***	**	*	*	*	*
Providing health care organizations database	*	N/M	N/M	N/M	N/M	N/M
Designing an international branch	*	-	-	-	-	-
Providing consultation for other accreditation models	***	*	*	*	*	*
Strengthening in public confidence	****	**	*	*	*	*
Emphasis on efficiency and effectiveness	***	**	*	*	*	*
Providing innovations	****	**	*	*	*	*
Effect on global accreditation standards	****	**	*	*	*	*
Emphasis on patients' rights and providing a ethical atmosphere	***	*	*	*	*	*
Focus on information management	***	*	*	*	*	*
History of organization	****	***	**	*	*	*
Effective relationship with stakeholders	***	**	**	**	**	**
Suitable public awareness (public reporting)	***	**	**	**	**	**
Agreement with AGIL indicator	***	***	*	**	N/M	N/M
Wideness of activity scope	***	**	**	*	**	*
Accredited with ISQua	*	*	*	-	-	*
Considering all 3 types of performance indicators	*	*	-	-	-	*
Having the intent statement	*	*	*	-	-	-
Running voluntary	*	*	*	-	*	*
Running non-governmental	*	*	*	-	-	*
Being suitable for various organizations	*	N/M	N/M	N/M	N/M	N/M
Span of coverage and scientific level	****	**	*	*	*	*
Increasing trend in the international activities	*	N/M	N/M	N/M	N/M	N/M

* : Shows the degree of model achievement in the specified indicator

N/M: Not mentioned in the reviewed studies/- : The model did not achieved the specified indicator at all

The accreditation models that have most discussion and analysis in all of these articles in turns are the JCAHO from USA and CCHSA from Canada, and the accreditation models of UK, Australia and France were in next levels.

The obtained results from this study are coordinate with previous studies that introduced these models as largest and most effective prevalence models in the world.

In related to accreditation purposes and other items that extract from literature review and was base for comparison, the JCAHO from USA and CCHSA from Canada had most advantages and least disadvantages respectively(6).

After a vast literature review, the researchers determined the JCAHO (JCI) from United States, CCHSA from Canada and ACHS from Australia as the best accreditation models worldwide respectively for benchmarking to developing of new and suitable accreditation program. From this three accreditation model, the CCHSA has more accreditation standards related to Primary Health Care, but the deputies of health from Iranian Medical Sciences Universities do not have accreditation program and any suitable standards to evaluation of this health care centers and generally to primary health care centers. Then, the research team obtains to valuable standards by using of health management textbooks and holding interviews with experts.

Finally, the number of 74 primary standards acquired by using of all collecting data methods and delivered to number of 46 experts. In the first round of Delphi, from all dispensed questionnaire the number of 44 questionnaires collected (response rate of 95.6%) and the number of 68 standards accepted, other 6 standards gained to next round and any standards did not eliminated from study. In continues, the second round of Delphi hold with 6 remained standards with the feedback of median score of all responses and standards scores from the experts in first round to their own. In the second round, the responders review the total scores and their personal scores to each standards and revised their scores to standards if they want, or give previous score to stand-

ards. In this round, the number of 46 questionnaires dispensed and 43 questionnaire collected from experts (response rate: 97.7%).

In the second round of Delphi, all standards accepted from experts' perspectives and recognized as suitable accreditation standards. Then, the same standards merged with each other, finally, the number of remained 55 standards made the final accreditation model.

The notable point in this study is high response rate in two round of Delphi technique, so indicated that the research team select the best experts, with suitable and timely communication with responders and good follow up from researcher.

The current model has suitable standards for assessment, documentation, amendment and implementation of service delivery, management and procurement process in four sections including context, input, process, output and impact, and attention to all main and strategic health services indicators. After determining final standards, the main section of health care accreditation model including intent statement (the comments regarding to standard objectives) and measurable sub standards (the agents to objective measures of each standards) were designed to all of standards. Thereafter, the designed model assessed from the 43 experts perspectives via 12 criteria that indicate the quality of standards in an accreditation model.(16). From the experts' perspectives, the current accreditation model indicates coordination with all criteria that indicate the quality of accreditation standards (Table 3).

The pilot study conducted in 3 rural health centers and the designed accreditation model assessed to realize the quality of standards and practicality of aspects. In this phase, the selected rural health centers were evaluated using the developed standards by health center staff and health management specialists, and any shortages in each standards and overall model were detected. After evaluation, all of developed standards accepted in implementation level, but the number of 6 standards changed to better understanding of surveyor and health centers, and 4 items added to measurable components of standards.

Table 3: Checklist for evaluating an accreditation standard

Criteria	Standards Ability (Frequency & Percent)		
	Yes	No	Partially
1 Does it focus on the patients or clients receiving the care or services?	43(93)	0	3(7)
2 Does it have face validity and demonstrated reliability?	41(89)	0	5(11)
3 Does it address the performance of common or important functions of a health care organization, such as patient management, leadership, infection control, and management of human resources?	46(100)	0	0
4 Do experts believe it to be important to practice or in improving health outcomes?	45(98)	0	1(2)
5 Is it amenable to assessment and quantification through an internal or external evaluation process?	46(100)	0	0
6 Can it be uniformly applied to all organizations of a particular type, such as a hospital or clinic?	43(94)	1(2)	2(4)
7 Is it consistent with existing laws and regulations?	40(87)	2(4)	4(9)
8 Does it complement any existing international standards, such as those published by the World Health Organization?	46(100)	0	0
9 Is it culturally sensitive and appropriate?	43(94)	1(2)	2(4)
10 Does it reflect what experts consider "best practices"?	45(98)	0	1(2)
11 Does it provide a framework for the inclusion of advances in clinical practice or technology?	40(86)	3(7)	3(7)
12 Is it flexible enough to be revised as needed?	46(100)	0	0

Discussion

The aim of this study was developing of national accreditation model for evaluation of rural health centers in Iran to encourage continuous quality improvement in these centers. In designing of this model, researchers used of all methods for gathering information and determining primary standards, suitable methods to managing study and best experts to holding Delphi technique. Thereafter, the final model is a complete model for diversity in standards, attention to all main indicators in health system, and having main section of well-established accreditation model.

The Joint Commission for Accreditation in Healthcare Organizations (JCAHO) is the accreditation mother worldwide, that accredit all type of health care organizations. This accreditation program has suitable standards for assessing the health care centers in primary care services, but the scope, precise and quality of their standards are less than designed model during current study. This two accreditation model have intent state-

ment and measurable sub standards for increase objectivity in evaluation process(17).

The CCHSA Accreditation standards is the one of Pioneer accreditation model in the world that have suitable scope of standards to evaluation health centers, but its emphasis on primary care accreditation is more than JCAHO, so that this program has a important part in this field as Primary Care Services (PCS) with more standards. This accreditation program has best quality in their standards in primary health care, so that the current study use from its standards rather than other pioneer and grand accreditation models. The CCHSA accreditation program has intent statement and measurable sub standards for all of their standards too(16).

Other health care accreditation models such as ACHS of Australia, ANAES of France, and other accreditation model in EMRO region such as Lebanon and Egypt accreditation model emphasis on hospital accreditation and do not have any standards for primary health care evaluation. Therefore, these models don't have suitable intent

statement and measurable sub standards for their standards(18).

Regarding study results, the researcher suggests that this study implement to other health centers in primary care such as Health House, Urban Health Centers and etc and finally this research and activities lead to developing of holistic and coordinated accreditation program in all part of Iranian primary health services and increasing quality of delivered cares.

This study limitation is low access to majority of experts for theirs' high work loud. The notable and strong pointsof this study is high response rate in two round of Delphi technique, so indicated that the research team select the best experts, with suitable and timely communication with responders and good follow up from researcher.

The current model has suitable standards for assessment, documentation, amendment and implementation of service delivery, management and procurement process in four sections including context, input, process, output and impact, and attention to all main and strategic health services indicators. Other strong points of current accreditation model are having the main section of health care accreditation model including intent statement and measurable sub standards, accepted of all designed standards, and implementing of Pilot Study to eliminate the weaknesses point of this model and increase the implementation ability in real world. This study approved by ethic committee from Tabriz University of Medical Sciences and all of experts participated in study voluntary and informed with written consent.

Conclusion

The current accreditation model has most standards in primary care worldwide and researcher's hops using of this model for its unique characteristics led to continuous quality improvement in rural health centers.

Ethical considerations

Ethical issues (Including plagiarism, Informed Consent, misconduct, data fabrication and/or fal-

sification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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