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Review Article

Imbalance between Goals and Organizational Structure in Primary Health Care in Iran- a Systematic Review

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Abstract

Background: In recent years, the main focus of health sector reforms in Iran is the family physician and referral system plan. Fundamental changes in the goals and strategies, has increased the necessity of the need to reform the organizational structure. This study tries to review and summarize all cases about the organizational structure of Iran and its challenges in primary health care system.

Methods: This study was a systematic review of published and grey literature. We searched the relevant databases, bibliography of related papers, and laws, using appropriate search strategies and key words. The CASP tool was used by two experts to evaluate the quality of retrieved papers and inconsistencies were resolved by discussion.

Results: After removal of duplicate citations, a total of 52 titles were identified through database searching, among which 30 met the inclusion criteria. Considering the research quality criteria, 14 papers were recognized qualified, which were categorized into two groups of: articles and policies. The results showed ineffectiveness of the current organizational structure at different level. The majority of the papers recommend performing reforms in the system because of changes in goals and strategies. Also, some suggest an appropriate information system to be designed in the current structures. Centralization and delegation process are the main discussions for the studies.

Conclusion: Because of fundamental changes in goals and strategies, reforms in the organizational structure of primary health system in Iran especially in peripheral levels are highly recommended.

Keywords: Primary health care, Health system, Organizational structure, Iran

Introduction

Health is a universal right and responsibility of every government to provide for communities. Article 29 of the Islamic Republic of Iran's constitution stipulates that: "… entitlement to health services and medical care, is everybody's right …" (1). Following considering the article and Alma-Ata Conference at 1978 with the slogan: "Health for All by 2000" (2) and with "Primary Health Care" (PHC) strategy, policy makers in Iran decided to enact and enforce the laws to reach that goal. Vast changes were made in the organizational structure of health system to achieve the goal. In 1985, at national level, medical education was merged into the health system duties; therefore the "Ministry of Health and Medical Education" (MOHME) was developed. At regional level, university of medical sciences and at local level, health networks were formed which were responsible for the health and education in the country (3). Health indicators in all areas during the first two decades after the reform indicate the efficiency of the system to achieve predetermined goals (3). World Health Organization (WHO) report in 2008 confirmed this issue: "The Islamic Republic of Iran's progressive roll-out of rural coverage is an impressive example of this model" (4). Despite these progressions in early years, while referral system

plays a very effective role to achieve the goal of health for all, the system was neglected in Iran. To complete the reforms, The MOHME implemented family physician and referral system plan in all rural areas in 2005 and in urban areas in 2011 only in three universities (5).

These changes were added to the system without any change in the structure as it was designed three decades ago (6). To study the efficiency and effectiveness of the current system to achieve the main goals, the aim of this study is to review the field of organizational structure and the challenges in PHC system in Iran.

Organizational structure is the way or method to determine, organize and coordinate all organizational activities. Moreover, it specifies the position of personnel, hierarchy of authority and formal relationships in organization (7). Reforms in organizational structure are the main activity after determining goals and strategies. Without adjusting between these, imbalance will occur and efficiency will decrease in organizations (8).

Because of the changing in goals and strategies of Iranian health system to family physician plan, we want to find and clarify every defect in current organizational structure in Iran which led to imbalance. Changes in organizational structure in different parts of the health system in Iran have been done so far, for instance, the integration of medical education with health sector (9) or decentralization in hospitals through autonomy granting or by forming the boards of trustees (10), but according to this study that is related with organizational structure of the PHC system, these papers were removed.

This study tries to review and summarize all cases about the organizational structure of Iran and its challenges in primary health care system.

Methods

Selection criteria for studies

Types of study: All study types including primary or secondary, upstream policies and laws related to health system of Iran were selected. Studies were further limited to those published in the English and Persian languages from 1996 to 2011(15 recent years). The reason to choose this period is that the authorities realized the need to reforms the health care system in these years and implemented the family physician and referral system plan in this period. Malekafzali presented this classification in his study (11).

The excluded criteria were: no access to the full text and published studies before 1996 and after 2011. We searched the following online databases:

- Bibliographic databases: Medline, Embase, Current Contents, Cinahl, Web of Science (Science Citation Index), Google Scholar, IranMedex, SID (Scientific Information Database) and Magiran.
- Review databases: Cochrane Database of Systematic Reviews, Database of Abstracts of Reviews of Effectiveness (DARE).
- Medical research information portal and all rules and guidelines published by MOHME.

The key words were: Iran, health, primary health care, health system, centralization, decentralization, and organizational structure as well as Persian equivalent terms which are the translation of these keywords in Persian.

The keywords are both Mesh and non-Mesh terms. The combination of the key words for search was:

- "Iran" and ["health" or "health system" or "primary health care"] and "organizational structure".
- "Iran" and ["health" or "health system" or "primary health care"] and ["centralization" or "decentralization"].

We also hand searched the related journals and the bibliographies of articles identified for inclusion in the review. We contacted experts for possible ongoing or missed studies and the Ministry of Health and universities to find the non-electronic sources such as thesis or reports.

Study identification and quality assessment

One investigator (SHS) and a research assistant screened the titles and abstracts of the articles. Articles that potentially met our inclusion criteria,

or even were dubious were retrieved and assessed for relevance by one investigator (SHS) and a research assistant. Disagreements were resolved by discussion. To assess methodological quality of the final set of articles, we adapted Critical Appraisal Skills Programme (CASP) tool. Each article had a quality appraisal performed by two reviewers. Articles were classified as weak (the score of quality assessment was less than 35% total score), moderate (the score of quality assessment was between 35% and 70% total score) or strong (the score of quality assessment was more than 70% of the total score). All discrepancies in quality assessment were resolved through consensus.

Data extraction and analysis

One reviewer extracted data from all included articles and laws. Extracted data were double checked by a research assistant for accuracy. Data were extracted on study design, objectives, theoretical framework, reliability, validity, and key findings and recommendations with respect to the organizational structure of health system of Iran. All discrepancies in data extraction were resolved through consensus.

Results

Description of studies

The database and hand search retrieved 52 abstracts and laws among which 30 were identified as being potentially relevant. In the next step 16 articles were excluded for not meeting our inclusion criteria, leaving 14 articles in this review.

Articles

This group includes 10 articles (Table1). Most of them are descriptive, reviewing or comparative studies that have analyzed the health situation of Iran, and have suggested solutions for reform in organizational structure. The remainders are quantitative, applied or action researches which have assessed the health indicators before and after changes in the organizational structure.

The first is a review article about weaknesses and challenges of the Iranian health system categorized the current problems into two functional and structural. The structural problems are: centralization in decision making and inadequate infrastructure service providers in the cities. Despite appropriate structure for PHC in rural areas because of the health houses (khane behdasht), services in the urban areas is provided by the private sector, while there is no suitable law for appropriate behavior and function of the private sector. Other problems are identified as: variety of financial systems in the health sector, poor information system and inappropriate payment system for health providers (6).

In a comparative study in 2007, the decentralization of health systems in 10 countries including Iran was scrutinized. In this study one of the malfunctions of the Iranian system was identified as lack of plan for human resources and equipment at regional level. The health system is unable to produce the plan in appropriate manner (12).

In third study in 2004, Iranian PHC system and function of the organizational structure has been described. The author has pointed the achievements and problems of the current system. According to this study, some of these challenges regarding the organizational structure are: weaknesses of information system, centralization in decision making and lack of flexibility and responsiveness (13).

A study regarding the trends of health indicators in Iran shows that despite several achievements, one of the major challenges in this area is: **"**Need for establishing efficient organizational structures and managerial system for health development**"**. Battling this challenge will result in **"**rationalization of available manpower and financial resources and provide the opportunity for public and private partnership in the delivery of PHC**"** (14). Motlagh and colleagues in the fifth study identified the decentralization policy as a main part of health system reforms in Iran. They evaluated five projects in this direction in Iran that have been conducted so far.

These includes: primary health care delivery plan, forming the boards of trustees in universities, autonomy granting plan in hospitals, privatization law and increasing the financial authorities for peripheral levels.

Table 1: Findings of researches in organizational structure in Iran's health system

Author(s) or title	Reference number. journal name, volume	Year	Method, time sequence	The main results
Articles				
1.Nekoi and colleagues	6. Int J Health Plann Mgmt	2011	Systematic review, ten years	Centralization in decision making, inadequate infrastructure service providers in the cities
2.Jabari and colleagues	12. H. administration J., 10(27)	2007	Comparative study, using Delphi technique, cross sectional	Decentralization in different countries has been satisfactory, weaknesses in services transfer to lower level in Iran.
3.Sadrizadeh	13. MJIRC, 7(1)	2004	Descriptive, using document analyzing, retrospective	Weaknesses of information system, centralization in decision making
4.Sadrizadeh	14. Iranian J Publ Health, 30(1-2)	2001	Descriptive, using indicators analyzing, 1984 to 2000	Need to design more appropriate organizational structures
5.Motlagh and colleagues	15. Yazd Uni. J., 16(3)	2008	Descriptive, reviewing important experiences, cross sectional	Decentralization is a major component of health sector reforms process if implemented properly.
6.Shadpur	16. Ghazvin Uni. J., 10(3)	2006	Descriptive, using document analyzing, retrospective	For reforms, appropriate structure should be specified. The government's commitment to reforms is essential.
7.Mehrdad	17. JMAJ, 52(1)	2009	Descriptive, using document analyzing, retrospective	Poor convergence in Iranian information system
8.Seyedin and colleagues	18. J Med Syst.	2009	Quantitative, using interview and Delphi technique, cross sectional	There is not specific organizational structure for disaster management in Iranian PHC system.
9.Zahedi and colleagues	19. Beheshti Uni. J., 24(2)	2000	Applied, action research, cross sectional	Decentralization causes high efficiency in Broujen health network.
10.Judati and colleagues	20. H. administration J., 9(23)	2008	Applied, action research, cross sectional	Downsizing causes high appropriate performance in Tabriz health system.
Policies and laws				
11. Iran's vision in 2025	21	2005	Descriptive, prospective	In 2025, Iran should be the most developed health care system in the region.
12. Iran's fifth long term plan	22	2009	Descriptive, prospective	Administrative reforms in order to increase mobility and efficiency in health system
13. Iran's health map	23	2009	Descriptive, prospective	Modify the organizational structure of health services network in order to meet priorities and basic needs
14.World Bank report	24	2007	Descriptive, using document analyzing, retrospective	Current health system in Iran is very inappropriate and fragmented.

Based on authors, proper conduct of decentralization process will bring quality and justice but without considering to prerequisites can lead to consequences for health system (15). Shadpur in his article: "Iran's health sector reform", has described the necessary of prerequisites for the health system reforms in Iran. The paper focuses on designing a well-developed organizational structure. It offers some models to be used in designing the structure such as: traditional bureaucratic structures, pattern of Japanese organizations with organizational engagement and new public management model. In addition, comprehensive assessments of existing conditions, determining the value system and most importantly, the government's commitment to reforms have been announced as the other requirements (16).

The seventh is a descriptive article which has evaluated the current health system in Iran in various areas such as: PHC, education and insurance system. The study shows inadequate convergence of information system causes difficulty in analysis and inappropriate use of information in the system (17).

Because of variety of natural and manmade disasters in Iran, Seyedin and colleagues carried out a cross sectional and quantitative study to assess the health system to respond to the disaster. It was found that there is not specific organizational structure for disaster management in the health system in Iran. Therefore, they recommended a separate unit to be established in the MOHME as well as provincial and local levels to conduct disaster management activities (18).

In 2000, Zahedi and colleagues evaluated three indicators: administrative bureaucracy, management practices and cost of health care centers before and after decentralization in the Boroujen health network. The authors concluded that in all three indicators, positive results have been achieved after the establishment (19).

The last study in Tabriz in 2006 has evaluated the performance of the health system after using downsizing staff line units' technique. In this research, health indicators and financial costs were studied before and after the merging of units. The performance of health system significantly has been improved after the process (20).

Policies and laws

This part includes a set of findings related to the upstream policies, foreign reports and MOHME laws that refer to the health system and changes in its organizational structure which includes four cases (Table1): firstly, health vision for 2025, which points out that: "… in 2025, Iran should have the most developed health care system in the region" (21). Secondly, is related to the general policies of Iran's fifth long term economic, social and cultural plan. Article 14 explicitly focuses on structural reform: "administrative and judicial reforms in order to increase mobility and efficiency, improve services" (22). Thirdly, the MOHME's health map which contains 16 strategies to execute the abovementioned plan (23). The strategy of number six is dedicated to improve the organizational structure: "The organizational structure of health services network must be modified in order to meet priorities and basic needs". The last case is World Bank report regarding the health system of Iran (PHC). In this report, high centralization, frequency of services in the cities and lack of coordination are some of the main weaknesses of organizational structure. It describes the existing system as fragmented and inappropriate (24).

Conclusion

Based on our searches, most of the published articles about Iran's health system are about target achievements and outcomes (25). We were unable to find a comprehensive study regarding organizational structure. As a result, this study can help to have a better understanding and leads to useful decisions in this regard.

Almost all reviewed studies have stated that: there are real problems in the current organizational structures in Iran, particularly in the local and regional level (city health centers and urban and rural health centers). They have insisted that appropriate reform is necessary at this stage. Re-

forms in health system were carried out in other countries with different impacts. For example, there was organizational successful after health system reforms in Kosovo (26). On the other hand, in a study about health system reforms in China the authors believe that: "the reforms failed and seek new directions" (27). Also reforms in Latin America failed based on Homedes study (28). Organizations are living in a very dynamic environment. They need to adjust their structure to changes in the internal and external environment. This increases the efficiency and effectiveness of the system (29). Based on systemic view, Daft has divided Organizational structure into two dimensions: structural dimensions that indicate the internal properties and contextual dimensions which represent the entire organization and effect on structural dimensions. Structural dimensions include: formalization, complexity, centralization, specialization, standardization, hierarchy of authority, professionalism and Personnel ratio. On the other hand, contextual dimensions include: goals and strategies, environment, culture, technology and size of organization (8). Among the different dimensions mentioned above, centralization and delegation process are only dimension that has been examined in Iran's PHC system in the past studies. All studies in this field have pointed to the satisfactory results of decentralization (19, 20).

WHO recommends governments especially in developing countries to decentralize its health system (30). Implementation of this policy has had different effects in the countries. Similar to our findings, Bossert has conducted a study about successful of decentralization in some part of health system in four countries (31), but in another study, decentralization on health financing and governance policies in Mexico has had positive and negative effects (32). Despite the formation of boards of trustees in all universities in Iran, decision making has not been decentralized properly which require more attention in this area (3). Other abovementioned dimensions (Daft) are recommended to be considered in the health system reforms. Reforms in these areas are supported by the articles together with important laws and upstream policies which have emphasized. MOHME in 2009 modified the organizational structure in macro level and its effects are not still evaluated (33). Dividing Health Deputy to two deputies is one example, but fundamental changes in local levels have not been made so far. Poor inter and intra collaborations are one of the main challenges in the current situation. World Bank in its comprehensive report about the health system in Iran clarifies this issue (24). In family physician as a newest reform in Iran, an executive committee consisting of health authorities and other agencies such as governors and insurance organizations are required to be involved to perform the task of "organizing for the establishment of referral system" (5). The current system is unable to meet this need. Similar to our findings, collaborations in health system in other countries are recommended (34, 35).

Studies show that challenges associated with organizational structure in the rural area are less than urban area. This is because of indigenous and trained community health workers (Behvarz) in rural health houses and the lack of similar employees in the cities. Nekoi and colleagues and World Bank have mentioned the multiple and parallel service providers in the cities. This can result in inappropriate system performance (6, 24).

Some papers have suggested designing new structures in the health system. Seyedin and colleagues have stated that disaster management structure in the current conditions is necessary (18). In another study he has suggested reengineering the current health system to form disaster management activities (36). Also Mehrdad recommends revision in the current health information system as a part of the management system (17). These revisions in health system are conducted in many developed and developing countries such as European (37, 38) or Latin Americans countries (39). It is concluded that the Iranian PHC system at present circumstances needs to reform the organizational structure at different parts especially in local level because of the changes in the main goals and strategies. A comprehensive study is

needed to design the system to adjust goals and strategies.

Ethical considerations

Ethical issues (Including plagiarism, Informed Consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc) have been completely observed by the authors.

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