



Health Workforce Development Policies in Iran: A Study of In-service Training Policies

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Abstract

Background: In-service training is one of the requirements for developing health workforce skills and providing quality services to patients.

Objectives: This study aimed to determine the policy formulation of in-service training for the health workforce in Iran.

Methods: In this qualitative policy analysis study, semi-structured interviews with key informant persons and document analysis were used to gather data. Interviews were conducted with 12 informed people about health system policies, experts, and managers of in-service training centers of medical universities and the Ministry of Health and Medical Education (MOHME) selected purposively. Targeted and snowball sampling was used to identify the participants. Data analysis was performed using the MAXQDA10 software, and framework analysis was run using the Kingdon model.

Results: Centralized planning, lack of access in rural and remote areas, and the inability to use the potential of universities in staff training were the most frequent problems in in-service training of the health workforce. Establishing the Board of Trustees for universities affected the opening of the opportunity window to policy-making, and political entrepreneurs in MOHME took advantage of it and developed policies for in-service training.

Conclusions: The development of policies has created a suitable platform for medical universities to increase the number of training hours and develop the skills of the health workforce. It also seems that policymakers' attention can lead to improving processes and using new approaches in the continuous development of health professions.

Keywords: In-service Training, Kingdon Multi Streams Model, Health Workforce, Policy Analysis

1. Background

Human resources are important, and continuous development and improvement seem inevitable. Human power is any organization's most important, expensive, and valuable capital and resource. Therefore, knowing the exact dimensions of human resources development and providing basic solutions to empower them is one of the most important duties of managers (1).

Among the diverse activities of human resource management, empowerment is considered one of the most conventional activities, which includes training and learning new skills, improving existing skills, and doing effective work for the productivity of organizations (2).

In-service training is one of the requirements for developing health workforce skills (1-3) and providing quality services to patients (4-6). In developing countries where the shortage of human resources in the health system is

one of their constant problems (7, 8), having a capable workforce can contribute to the productivity (9) and resilience of the health system (10, 11). Moreover, due to the rapid growth of knowledge and technology and the development of medical equipment, the need to update the technical knowledge of the health system workforce is felt in accordance with the progress made (12), and the health workforce needs to develop their personal skills and abilities (13). Accordingly, the need for in-service training is felt worldwide (14). This training can cover the health workforce (15).

For human resources development to be systematic, it must be on the attention of health system policymakers. In Iran, policymakers have recently focused on developing and empowering the health workforce. Hence, positive results have occurred in providing in-service training for the health workforce. However, there are challenges, such as paying more attention to the number of hours spent in-

stead of the quality of training and their effectiveness in performance (16-18). Moreover, most of the training provided is to increase knowledge, and less skill training is considered in the in-service training policy (19). Various studies have emphasized the need to review decisions and policies for human resources development (20, 21).

2. Objectives

This study was conducted to determine the policy-making process of in-service training of the health workforce in Iran that can provide evidence to policymakers in developing policies in this area. Also, countries with similar situations can use the results to provide appropriate policies.

3. Methods

3.1. Study Design

There are different models to analyze health policies (15). This study was a policy analysis research that was done qualitatively. Kingdon's model has been used to analyze the policy (Appendix 1 in Supplementary File) (22). This approach consists of three streams: Problem stream, politics stream, and policy stream.

Problem stream refers to various problems in different communities or systems for which no appropriate answer has been provided (23). According to Kingdon, as problems flow arises, solutions and ideas gradually emerge and expand. In the political stream, a wide range of possibilities, solutions, and situations are examined, and gradually some solutions may become important or lose their significance (23, 24).

Policy streams are elements related to political power, and in practice, supporting and pursuing these elements and streams can lead to major changes in the policy-making environment. Factors such as the approach of parties and groups to an issue, changes in the position of the presidency and the parliament, and similar issues in the political process are analyzed and examined (23).

According to Kingdon's model, when these three streams meet at one point, a window of opportunity for policy-making opens, so policies must be formulated before it closes. Identifying and using the opportunity window can help policymakers choose appropriate and accurate policies (23).

3.2. Data Collection

Semi-structured interviews and document reviews were used to collect data.

3.2.1. Document Analysis

A comprehensive search of published and unpublished documents regarding the in-service training was performed. To do this, the websites of the Ministry of Health and Medical Education, the Parliamentary Research Center, the Center for Public Management, and the universities of medical sciences were visited, and documents were searched using the keywords of in-service training, continuing professional development, on-the-job training, education, empowerment, and human resources for the health workforce. In order to investigate the existence of unpublished studies, we referred to the General Directorate of Human Resources at the MOHME and requested to have access to such documents.

3.2.2. Semi-structured Interviews

Semi-structured interviews were conducted using purposive and snowball sampling with 12 informed people about health system policies, managers of MOHME, managers of in-service training centers of medical universities, and experts from MOHME. These people included seven (I1-I2 and I5-I9) human resources managers or directors of in-service training and five experts (I3, 4, I10-I12) with a history of workforce training management and compilation of by-laws. We received an ethical code number and sent a consent form to the participants, emphasizing the confidentiality of the information. The interviews were conducted face-to-face and recorded; note-taking was also done during the interviews. Each interview lasted between 30 and 60 minutes. Data collection continued until saturation. The interviews were conducted verbatim, the notes taken during the interview were reviewed, and their supplementary items were added to the text of the interviews. Trained people carried out interviews. We increased the study's validity by using various note-taking and sampling methods. Moreover, to maintain the confidentiality of the interviewees' information, we numbered the interviews from I-1 to I-12, which can be found in all references.

3.3. Data Analyzing

Document analysis was performed manually, and semi-structured interviews were analyzed using MAXQDA-10 software with a framework analysis approach. Framework analysis is a type of qualitative content analysis that summarizes data thematically to facilitate their analysis (25). According to the model of Gale et al., after reading the implemented documents and interviews several times and getting acquainted with the data, coding was done. Finally, by aggregating similar codes, the results were categorized based on Kingdon's approach in three areas of problem, political and policy streams. To increase the validity of the

findings, two persons reviewed the data, and the disputes were resolved by consensus.

4. Results

4.1. Document Analysis Results

We obtained 27 documents, including laws, policies, regulations, instructions, and directives. Seventeen provided in-service training (five policies, five laws, and seven bylaws, instructions, and directives. (Table 1).

Table 1. Document Titles Reviewed

Document Type	No. (%)
Policies	5 (30)
Laws	5 (30)
Bylaws, instructions, and directives	7 (40)

Results of interviews: Interviews were done with human resources managers, experts and former directors of in-service training, director of in-director or managers of in-service training, and experts in MOHME (Table 2). The results were analyzed with framework analysis, leading to 36 codes and seven subthemes. Based on the Kingdon policy analysis model, the themes were the problem stream, political stream, and policy stream (Table 3).

Table 2. Occupational Information of Participants

Interview code	Occupation
1-2	Human Resources Management
3, 4	Expert and former director of in-service training
5-9	Director of In-service Training
11	Director of Managers In-service Training
12	Expert in MOHME

4.2. Problem Stream

In this study, centralized planning, lack of access to education, and not using the potential of universities were among the most important problems.

4.3. Centralized Planning

The interviews showed that the country's Management and Planning Organization (MPO) did the training program and empowerment of government employees centrally. The organizations were required to obtain a license to hold training courses. The challenge was that due to the very long process of obtaining licenses for training courses, many training opportunities were lost, and it was

difficult to provide specialized training to the health workforce, ultimately leading to dissatisfaction among them.

"We had to send the list of the training needs of our employees to the country's MPO based on special tables and wait for their meetings and licensing of courses, which was a time-consuming and long process. Therefore, many educational opportunities were lost, and perhaps the training course became a priority." (I7)

Problems with accessing specific in-service training: In many cases, employees had to go to centers licensed by the MPO to participate in training courses, making it difficult to access in-service training in remote and rural areas. There were not enough incentives for other employees to participate in training courses.

"Employees had to go to organizations approved by the MPO to participate in the courses. Due to the limited number of these organizations and the difficulty of access in some provinces, there was virtually no incentive for staff to participate in training courses." (I3)

Impossibility of using the scientific potentials of medical universities: The results of the interviews also indicated that medical universities with faculty members and health professionals had great potential in providing training and empowerment of their human resources, but due to lack of course licenses or lengthy licensing process from the MPO, this potential was not used and was finally lost.

"Universities had scientific potential but had no power or specific structure!" (I-1)

4.4. Politics Stream

In this study, the most important political streams included creating a positive attitude in policymakers and the board of trustees of universities.

Creating a positive approach in policymakers: The results of the interviews and the review of documents showed that the empowerment of government employees had not been systematically considered before the Third Development Plan (26) and did not have a clear structure. The first time that the empowerment of employees was specifically mentioned in the law was related to the law of the Third Development Plan in 2001. In Article 150 of this law, the executive bodies were allowed to spend a percentage of their funds on the in-service training of employees, and the executive instructions of this article were announced in 2002 for implementation.

"At first, we did not have training like this at all. Then, the MPO held a series of courses, and we only introduced anyone who wanted to train at his/her own expense. They had no instructions or regulations at all." (I-8)

"It was in 2001 that the system of training the employees was approved. Then, the discussion of culture-building began." (I-11)

Table 3. Framework Analysis of Interviews

Themes	Problems
1. Problem stream	Centralized planning
	Problems with accessing specific in-service training
	Impossibility of using the scientific potentials of medical universities
2. Politics stream	Creating a positive approach in policymakers
	Board of Trustees at universities
3. Policy stream and the role of entrepreneurs	Compilation of administrative and employment regulations for non-academic staff of the MOHME
	Opening the policy window

Also, results showed that government employee empowerment is discussed in the Fourth Development Plan (27). In Article 54 of this law, the executive bodies were obliged to spend a percentage of their expenditure credits for designing and implementing in-service training courses for employees in accordance with the jobs held by employees to increase their efficiency and improve their job skills. After that, in the ninth chapter of the Civil Service Management Law (28), approved by the Islamic Consultative Assembly in 2008, employees were trained and empowered based on Articles 58 to 63.

As the findings show, a positive approach was taken to training employees, but the training in all organizations and universities was still centrally conducted by the MPO, and there were still some problems in holding staff training.

Board of Trustees at universities: Participants of the study stated that the most important turning point in developing laws for in-service training was the Board of Trustees at universities, which was first mentioned in paragraph A of Article 49 of the Fourth Development Plan Law and then, in paragraph B of Article 20 of the Fifth Development Plan Law (29). It was emphasized that universities could act independently within the framework of approvals and financial, transactional, administrative, and employment regulations approved by the Board of Trustees.

"The very debate on the board of trustees of universities has, in fact, created an opportunity for universities to make the most of their potential and resources." (I-6)

"It is rooted in the Fifth Development Plan, where it was debated in the Fifth Development Plan Act that medical and non-medical universities can write their own guidelines and regulations separate from other institutions; a lot of good opportunities were created" (I-1)

"There was an article in the Fourth Development Law that was extended in the Fifth Development Law and enshrined in the Sixth Law." (I-3)

4.5. Policy Stream and the Role of Entrepreneurs

The policy stream is characterized by the role of political entrepreneurs in drafting administrative and employment regulations for employees and subsequently determining policies for the in-service training of the health workforce.

Compilation of administrative and employment regulations for non-academic staff of the MOHME: The passage of the University Board of Trustees Act resulted in support of parliament and the government for the formulation of university policies by their board of trustees. The Joint Board of Trustees of Medical Universities approved the administrative and employment regulations of non-faculty members (30) in 2013. Chapter 7 of this regulation specifically deals with empowering employees, and Articles 45 to 48 deal with the process of in-service training of health system employees. Based on Article 46 of this regulation, in order to empower employees, medical universities are obliged to design their educational system in such a way that, along with matching the knowledge, skills, and attitudes of employees with the desired job, it provides the necessary incentives for their continuous participation in the training process. They were also required to establish a relationship between the promotion and appointment of employees and managers and the educational system.

"This sense of maturity was felt, expecting that universities could write their own law and did not necessarily have to be under the supervision of oversight bodies or the State MPO." (I-1)

"The Ministry itself has, in fact, submitted the instructions to the Central Board of Trustees of the medical universities, which is why all these issues have been considered." (I-6)

4.6. Opening the Policy Window

According to the findings, with the university board of trustees, three streams came together, and the window of opportunity for policy-making was opened; the health system's human resource policy entrepreneurs, who appear

to be the Minister of Health, the Deputy Minister of Management and Resource Development, the Director General of the Human Resources Department, the deans of medical universities, and other members of the university board of trustees took advantage of and developed in-service training policies and approved the Executive Instruction on in-service training in 2013.

"But it was an opportunity, yes, and the whole reason why the instructions were written so quickly was that we did not want to miss this opportunity." (I-1)

"In 2013, when the administrative regulations for the employment of non-faculty members were written, a good opportunity was given to the universities." (I-8)

5. Discussion

This study aimed to investigate the policy-making of in-service training for the health workforce in Iran. For this purpose, Kingdon's multiple streams approach was considered. Various studies, such as Behzadifar et al., Ha et al., and Khayatzadeh-Mahani et al., used this approach to describe the policy-making process (31-33).

According to the findings of the study, one of the most important factors that led to the establishment and order of staff training and empowerment was the belief of policymakers in the organizational maturity of medical universities and the foundation of the board of trustees at universities, which gave them proper independence for decision-making. In Bani Si's study, the main missions of the boards of trustees were to ensure greater independence of universities, decentralization, and facilitation of decision-making. It is also stated that boards of trustees can facilitate and expedite matters related to educational and research activities and prepare universities to achieve self-sufficiency in the country (34). The study of Mahdi and Azargashb further emphasizes the importance of forming a board of trustees in the success and efficiency of universities in the long run (35), which confirms our study's results.

Another issue that can be effective in policy-making is the presence of strong stakeholders and influential people (36). Proximity to policymakers and decision-makers and the proper use of the opportunity window were effective in policy-making. The Deputy Minister of Management and Resources Development of the MOHME used this opportunity to put human resources policies to the attention of policymakers. Ravaghi et al., quoting Kingdon, emphasize that when the opportunity window opens, policy entrepreneurs should take advantage of it and gain the support they need to put policies on the agenda (37).

The study's findings showed that by formulating policies for in-service training of the health system workforce, medical universities could act independently based on the

training needs of their staff and address many training and human resource empowerment challenges that arose from centralized staff training plans. In most centralized planning, the opinions and views of the lower classes are not taken into account (38). Since effective training requires proper training needs assessment, and the health system workforce in different departments has different training needs according to different service positions, the importance of planning based on educational needs becomes clear. Based on the study's findings, it seems that with the approval of training policies and empowerment of the health system workforce, the needs assessment is done at the highest level. Training and implementation of training are also done in the shortest possible time.

Legere et al. state that conducting a needs assessment for a specific professional group is an important step in identifying gaps in knowledge and areas for improvement in education (39). Fleet et al. also state that personal learning needs should be considered when planning training programs (40).

The study's findings showed that another important factor in the in-service training of health system employees is access to education. This problem is especially evident in low-income areas, villages, and remote areas (41). According to the research findings, with the development of training and empowerment strategies for the health workforce, the possibility of participation of rural and remote areas staff in training courses increased. The World Health Organization (WHO) believes one way to increase the survival of health workers in rural and remote areas is to develop continuous education based on the needs of rural areas, accessible from wherever they live (41). Martin et al. also state that since the rural environment is unique, having purposeful training, using a common language, and asking for help from training heroes can be used to prevent staff relocation in the village (42).

This study has some limitations, the most important of which was having limited access to people for interviews because of the COVID-19 pandemic.

5.1. Conclusions

Various factors affected the policies of in-service training of the health workforce. By creating a positive approach in the legislature to the development of employees and aligning the three streams, followed by the board of trustees of universities, health system policymakers took full advantage and approved the human resource and in-service training policies. This created a suitable platform for medical universities to increase the number of hours of training, but it seems that the impact of training provided on staff skills development, as well as the use of new

learning methods and skills training for the health workforce, needs further investigation. It is suggested that researchers design and conduct studies in this field.

Supplementary Material

Supplementary material(s) is available [here](#) [To read supplementary materials, please refer to the journal website and open PDF/HTML].

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Footnotes

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