Abstract

Background: To achieve universal health coverage (UHC), the World Health Organization (WHO) Regional Committee for the Eastern Mediterranean (EMRO) reported that the standard requirement for family physicians by 2030 is three family physicians per 10,000 people. The purpose of this study was to select the appropriate method of training family physicians in Iran to achieve this goal. Methods: The present qualitative study was conducted in conjunction with the method of agreement, during three sessions of focus group discussion (FGD) with 13 key persons at the national level to answer two research questions on choosing the most appropriate method of training family physicians and the criteria for this selection. After analyzing the data by content analysis method, a table was designed including family physicians’ training methods and selection criteria and evaluated by participants in a 10-point spectrum. Then, the scores were summed and the mean was calculated for each method. Results: The participants cited four methods, as well as 13 criteria. The Family Medicine Residency Program (FMRP) with a score of 93.4 and the Family physician bridging Program (FPBP) with a score of 68.38 were selected as the most appropriate training methods for the family physician to achieve the EMRO-declared perspective by 2030, respectively. Conclusion: According to the results of the study, the training of family physician specialist is the best method; but due to the long course and low output of this method, to meet the immediate needs of the health system and achieve the desired perspective, the FPBP approach was agreed as the most appropriate method of training the family physicians in Iran.

Keywords: Education, family, Iran, medical, physicians

Introduction

Family medicine is a specialized field in medical science that seeks to educate health-oriented, community-oriented, accountable physicians with a holistic view of medicine and to make them available to those in need of family and community health services. The specialist in this field looks at human beings in all dimensions, including physical, mental, spiritual, cultural, economic, and social dimensions, and provides the services in the curative, health-protective, health prevention, and health promotion aspects to the members of society.[1] Based on international experience, employing family physicians while meeting the health needs of the community and responding to them will increase their satisfaction as well as improve the productivity of the health system, improve health indicators, improve health justice indicators, reduce out-of-pocket payments, and increase the satisfaction of clients.[2]

Currently, the specialty of family medicine exists in many developed and developing countries such as the United States, the United Kingdom, Canada, the Scandinavian countries, and France as well as in the Middle East in Turkey, Saudi Arabia, Iraq, Jordan, Qatar, Bahrain, and the United Arab Emirates.[3] According to the sixth session of the World Health Organization (WHO) Regional Committee for the Eastern Mediterranean (EMRO) in 2016, the standard need for family physicians to achieve universal health coverage and health-related sustainable development goals until 2030 in this region is three family physicians per 10,000 people, which must be met by 2030. Accordingly, considering the population of about 80 million people in Iran, 24,000 family physicians are currently needed.[4]

In the 2005 Budget Law, the Health Insurance Organization should provide

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the possibility of benefiting from health services in the form of a family physician program through the referral system with the priority of the network and the focus of the family physician on rural health centers and eligible non-governmental centers for all residents of rural areas and cities with a population of less than 20,000. To establish a referral system in the country and prevent people from referring to multiple physicians, the rural health insurance plan and the issuance of rural insurance cards were envisaged, and subsequently, the family physician program was implemented to provide convenient access to health services since mid-2005 with the cooperation of the Health Insurance Organization, the Ministry of Welfare and Social Security, and the Ministry of Health and Medical Education in villages and towns with a population of less than 20,000.

The current methods of family physicians training in Iran are as follows:

Continuing medical education (CME) is held with the aim of retraining family physicians working in the health system during service for 160 hours. Training in this method was purely theoretical and did not provide skills training and did not meet the expectations of policymakers. Hence, the Master of Public Health (MPH) was designed to empower family physicians working in the health system, and has been held since 2009 as a 2- to 4-year modular training course as direct, indirect, or part-time. Inadequate organization and planning, the length of the course, and the unclear status of those who complete this course were the main weaknesses of this method. Since January 2016, Family Medicine Residency Program (FMRP) has started with 70 residents in eight universities of medical sciences. The specialty of family medicine has been designed mainly for primary care. Moreover, Family Physician Bridging Program (FPBP) as a short-term empowerment program for physicians is implemented according to general practitioners’ blended work schedule, including online, face-to-face, and practical outpatient care training, in Comprehensive Community Health Services (CCHS).

According to the aforementioned methods, the purpose of this study was to evaluate the most appropriate method for training family physicians in Iran to achieve WHO EMRO-declared objective from the perspective of participants, which provides the possibility of training 30,000 skilled family physicians to provide services in the field by 2030.

The conceptual framework of the research: In order to pay attention to all aspects of the subject in selecting key and effective criteria and components to select the most appropriate family physician training method, the authors explained the key components of each family physician training method based on STEEPV model. In this model, while collecting information about trends and important events in six areas, namely social, technological, economic, environmental, political, and values, and according to the past and current situation, the course of future events can be largely predicted and its consequences can be categorized as threats and opportunities and interpreted and explained in the future and used as a tool to achieve political and economic goals.

Methods

We used the qualitative research method with content analysis approach and the agreement method to determine the key and important factors (trends and events) related to the analysis of different routes of human resource training necessary to achieve the vision of family physician in Iran.

We also explained the different types of educational paths to provide a capable family physician and analysis of the desirability of each route based on the appropriateness of key and important identified factors.

Population

The research population consisted of 13 key policy makers, executives and experts in decision-making on family physician training at the national level, who worked in the educational and health departments of the Ministry of Health and the specialized board of family physicians in Iran.

Study design

The main data collection tool was the focus group discussion (FGD) with knowledgeable and relevant people. The purposeful sampling was performed based on the organizational position of the participants, the research team’s previous knowledge about them, and inquiries from colleagues. The participants were invited by a member of the research team working at the Deputy of Education of the Ministry of Health and Medical Education, by sending an administrative letter. As this study has been adapted from a larger study entitled “Developing a roadmap for training family physicians in Iran,” the results of the first and second phase of the study, which included a review of the family physician program in Iran and several leading countries in the family physician and strengths and weaknesses of the largest family physician training program in Iran (MPH) from the perspective of managers and physicians, were sent along with the invitation so that participants could have a more comprehensive view of the issue. The FGD sessions were held on June 22, 2018, at the Center for the Assessment of Medical Education. The interviewer was a general practitioner with an MPH degree in health management and a PhD student in medical education with 25 years of management experience at the level of county and 4 years as a technical assistant at the provincial health center, who was directly responsible for planning and monitoring the family physician program. Group discussion sessions were conducted based on the objectives of the study in two consecutive steps. In the
first phase, the participants discussed two sessions of group discussion on two research questions. The first question was how many possible methods are there to train family physicians in Iran to achieve the EMRO-declared perspective by 2030, and the second question was what criteria are available to select the most appropriate family physician training method. The STEEPV model was used to guide group discussions and to give comprehensiveness to the criteria for selecting the appropriate family physician training method.

**Data management and analysis**

Interviews were recorded digitally and immediately transcribed verbatim. Using the content analysis approach, possible family physician training methods and selection criteria for the most appropriate family physician training method were extracted from the participants’ discussions, summarized in Table 1. The top columns of the table included possible methods of family physician training in Iran and the rows consist of key and important factors to identify the most appropriate method of family physician training based on the STEEPV model agreed upon by the group. This table presented to the participants in the third session. According to this table, participants had to evaluate and score the possible methods of family physician training based on 13 components as important and key influential factors in the family physician training process in the range of 0–10 points.[1–10] Some contributors submitted their forms immediately in sessions and some in the following days via email and social media. After receiving all the forms, the scores were summed and their average was obtained. Accordingly, the judgment was made to determine the most appropriate method.

**Ethical considerations**

At the baseline, informed consent was obtained from the participants. They were ensured that the data remained confidential and that their names and positions will not be disclosed at all stages of the study. The interviews were recorded with the consent of the participants, and the audio files were deleted after implementation.

**Results**

Participants discussed possible methods of training family physicians in Iran. Finally, agreement was reached on CME, MPH, FPBP methods, and family physician specialization (RPFP). There was no agreement on the GRAND FATHERING method (training a doctor by working with another skilled physician) and the method of improving the quality of the GP course. After much discussion, the participants agreed on 13 items regarding the key and important factors in choosing the methods of providing family physicians in Iran. These items include creating skills in learners, creating social status and identity, approved by health system policymakers, acceptable cost-effectiveness, fit of education method with health system model, optimal use of existing laws to implement, make the least change in the current situation, acceptability in society, high scientific quality at the level of service delivery, job satisfaction and acceptance from the perspective of learners, quality assurance of service delivery, feasibility and ease of teaching methods, which was later set by the main researcher in the form of Table 1 and presented to participants for consensus.

Regarding the selection of the appropriate family physician training method, participant no. 2 pointed out that “We have used various methods to train family physicians so

| Table 1: Sums and averages of participants’ scores in each method based on 13 components |
|------------------------------------------|-----------------|-----------------|-----------------|-----------------|
| **Family physician training methods**   | **Components studied based on the dimensions of the STEEPV model** | **CME** (short term) | **B. P.** (medium term) | **MPH** (medium term) | **Specialty** (long term) |
|------------------------------------------|-----------------|-----------------|-----------------|-----------------|
| Social                                   | Establishing social position and identity formation | 24   | 41   | 51   | 104   |
|                                          | Assuring quality of service delivery              | 40   | 56   | 47   | 93    |
| Technological                            | Building skills in learners                       | 45   | 68   | 76   | 110   |
|                                          | High scientific quality at the service level       | 45   | 62   | 59   | 101   |
|                                          | Practicality (not idealistic)                     | 65   | 79   | 65   | 97    |
|                                          | Feasibility and ease of training                  | 87   | 81   | 71   | 80    |
| Economical                               | Acceptable cost of effectiveness                 | 74   | 83   | 81   | 87    |
| Environmental                            | -                                             | -    | -    | -    | -     |
| Political                                | Approved by health system policymakers           | 64   | 78   | 71   | 82    |
|                                          | Minimum change in the status quo                  | 90   | 80   | 79   | 78    |
|                                          | Efficient use of existing legislation             | 80   | 80   | 77   | 95    |
|                                          | Proportionality of the training method with the health system model | 73   | 79   | 78   | 86    |
| Value-based issues                       | Acceptance in society                             | 43   | 52   | 44   | 102   |
|                                          | Job satisfaction and acceptance from the perspective of learners | 42   | 50   | 50   | 100   |
| Total                                    | -                                             | 772  | 889  | 849  | 1215  |
| Mean score of key factors in any family physician training method | 59.38 | 68.38 | 65.30 | 93.46 |

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far, but to achieve the goal of three family physicians per 10,000 people; it will be more useful and desirable for us to do it in a shorter time.”

Some participants emphasized the targeted training of general practitioners in this regard, which could meet the needs of the family physician. Participant no. 4 pointed out: “A general practitioner may even be enough for us. Why should we call it family physician? Has the general practitioner curriculum said little about society and the family? The same general practitioner should be well trained.”

In contrast, a number of participants opposed the training of general practitioners to perform family physician activities due to cultural issues in the community. As participant no. 3 put it this way: “our people are not satisfied with the general practitioner in terms of culture, and they have to go to a specialist. People accept the specialist, and this attitude cannot be changed.”

On the other hand, the factor of social prestige for general practitioners and gaining social acceptance raises the need to train family physicians. Participant no. 1 said, “We can’t choose a modular course because it doesn’t have a social class. We want to take a course and teach everything and specialize in family physician to create social prestige for the general practitioner; and we want to meet that need so that they can gain the trust of the people.” Referring to the experiences of other countries in this field, participant no. 2 also explained the reasons for doctors’ willingness to specialize: “Identity formation for physicians in the United States was done through specialist training, but identity formation in the UK for family physicians who worked in the NHS system was done through referral and leveling of services. The specialist physician is connected to this family physician, and identity formation has occurred in these physicians. Why does a doctor want to become a specialist? Because it has more revenue, credibility, and higher identity. People like specialty because they think a specialist is smarter and more capable. Therefore, in the values that people and doctors pay attention to, specialty is valuable.”

The debate was also opposed by some experts for lack of a clear strategy and promotion of credentialism. According to participant no. 8, “Our task with this health system is not clear yet. We train family physicians, but our output is not commensurate with our health needs and we have no clear strategy in medical education. We teach but capability does not happen. On the other hand, we are developing credentialism: we are increasing our specialties and subspecialties. The credentialism has become popular, and even a percentage of MPHs have taken specialty.”

Some participants pointed to the time factor in choosing the best method. Participant no. 11 said, “When the program was designed, they were supposed to have BP or MPH in the short term, a specialist training course in the medium-term, and then general practitioner training with a long look. That was the ideology and logic of our system.”

Participant no. 1 also confirmed that “the decision of the Specialized Council is that FPBP can be part of the specialty and alternative to MPH. Fortunately, the condition for entering specialty is also BP or MPH. FPBP replaces MPH only to start the specialty course and because part of the specialty course can be an incentive for a general practitioner who, if accepted as a specialty, has actually completed part of their education.”

Participant no. 3 also emphasized: “WHO itself says train specialists. All developed countries also have specialists, but now that care programs, including women’s care and child care, are not being done properly, you can do other things as well, which should be a platform to take specialty and to do the current backlog, FPBP or MPH can be a solution, and then if you decide to get a specialty, the course will be shorter.

Finally, the participants’ proposed solution for selecting the appropriate family physician training method was evidence-based decision-making at the macro level. Participant no. 10 said, “We need evidence to make a decision, and we need to know what we need. The reality is that a big policy has to happen. Our superiors should decide that if we get family physician specialty, they should have fewer students in the fields of internal medicine, pediatrics, and obstetrics so that the labor market of family physicians must also be provided. On the other hand, the final decision should be made at a higher level, whether the family physician is an MPH, a modular, or a specialist.”

Regarding the criteria for selecting the best family physician training method, participant no. 4 stated that “We must first see what we want. What characteristics must a family physician have? Scientists say that a family physician should have five characteristics: first contact, generalist, comprehensive or community-oriented, family-oriented, and community-oriented. They must be the coordinator and gatekeeper of the health system, and they must also have the ability to identify and treat common diseases.”

Participant no. 5 also referred to these criteria: “a method that better regulates health or referral system and leveling; acceptance among learners; identity formation; approved by policymakers in the Ministry of Health and Medical Education; the lowest cost; and the highest return for effectiveness cost.”

On completion of the cited measures, participant no. 2 stated that: “Building skills in learners, identity formation, the opinion of health system policymakers, the effectiveness cost, the appropriateness of the training method with the health system.”
Participant no. 13 also pointed out these criteria: “Proportionality with existing laws, acceptance in society, to show the highest scientific quality in society, that is, to bring the individual to the most ideal scientific position. Job satisfaction, stakeholder engagement, being operational and practical, ensuring the quality of ongoing services means quality control, and on the other hand, it is not so ideal that we cannot do it, that is, it is feasible.”

The results of the Table 1 showed that, according to the collective opinion, the basis of work is the training of family physician specialists, but in order to achieve the most appropriate method to meet the vision goal of 2030, among the short-term and medium-term methods, members agreed on FPBP. They emphasized that by implementing the FPBP method, we should train the number of physicians needed in the country (with the ability to meet social needs and perform service packages in the health system), and then, after 2030, we will provide the conditions for turning these FPBP-trained people into specialized family physicians.

Discussion
Efficiency, effectiveness, and equality in the provision of healthcare services and their satisfaction, as well as success in achieving health-related outcomes in any society, depends on the performance of the family physician in that society. In this regard, the use of formidable family physicians is very important for the health care system of any country. A review of the family medicine program in other countries showed that the work being done in this area is changing rapidly in each country, depending on the development of countries, healthcare services, healthcare systems, and definitions; the public insurance industry; and attitudes of policymakers towards health. The WHO has advised that each country must identify its priorities based on the overall principles set by the WHO, and must design operational and immediate plans to achieve the goals. Accordingly, to achieve universal health coverage and health-related sustainable development goals by 2030 in EMRO, which includes Iran, three family physicians per 10,000 people are required to be provided by 2030. In this study, using the FGD and the method of agreement, we tried to find the most appropriate approach to train a family physician to achieve the goal set by the WHO from the perspective of key experts in the family physician program.

One of the thought-provoking results of the study was that although there was a consensus in the Iranian health system regarding the necessity, function, and inevitability of the family physician, there was no common discourse on approaches to the family physician, and especially the family physician training system, even among experts and chief executives of the family physician program. Most of the participants pointed out the lack of a defined and specific approach in this program and the personalization approaches based on the personal experience of policymakers and executives as the most important weakness of the program. However, the inherent and challenging features of this basic infrastructure program, such as processing, multi-sectoral, and participatory programs, have greatly increased this challenge and increased resistance to its implementation. On the other hand, the challenges in the health system, such as the lack of participatory culture, commitment of senior executives, and imperative approaches of the Ministry of Health and Medical Education, which are in stark contrast to the multi-sectoral and participatory nature of the program, have made the program much more difficult to implement. Shiani et al. also pointed to the disagreement of family physician executives over nature, quiddity, interpretation, meaning, and existing approaches toward the family physician. The challenges mentioned may be due to differing views and the lack of consensus among participants in the present study discussion.

The next topic of discussion was the cultural issues of the people, the society, and the policymakers. People’s willingness to go to specialists, low confidence in general practitioners, weakening position of a general practitioner, and their desire to get specialty and gain social acceptance, promoting credentialism, and the unwillingness of policymakers for identity formation to family physicians through referral system were among cultural challenges raised by the participants, thereby making the selection of the appropriate family physician training method difficult. Cultural challenges, as the name implies, are rooted in the cultural context of society and lead to the formation of people’s misbehavior in referring to physicians, the resistance of people and officials to cultural changes resulting from the family physician, the lack of internalization of many cultural values as justice-oriented behavior among people and officials, and lack of participatory culture and teamwork of officials.

To achieve the goal set by the WHO, some participants suggested training general practitioners as family physicians and stated that a review of the general practitioners’ training course could be a way forward. On the other hand, some experts have pointed out that family physicians do not have the required capabilities. It should be acknowledged that although the education system of Iran in the fields of medicine and related sciences has grown significantly in terms of quantity, it has not been very successful in terms of training human resources in accordance with the real needs of society. In this regard, the results of a systematic review by Changiz et al., in which the educational systems of various universities of medical sciences in Iran were examined, showed that general practitioners had desirable abilities only in 30% of cases (41 cases out of 136 expected competencies) and scored moderate to low on 70% of cases (95 competencies). The results of this study showed significant shortcomings in the training program of general practitioners in Iran and stressed the need to review the curriculum of medical
education and to plan specialty courses or design a specialty curriculum for family physicians.\textsuperscript{[15]} The results of a similar study, which was conducted to assess the competence of general practitioners working in the medical centers of Iran University of Medical Sciences, showed that there was a large gap between the qualifications of general practitioners in medical school and other cases needed in their daily activities as a family physician. For example, they received no formal training in communication skills, management skills, and coordination.\textsuperscript{[16]} The results of these studies show that reforming the education system and promoting community-based medical education in Iran is essential. In most developed countries that promote community-based education, efforts are being made to experience and include features into their educational system, such as linking medical education and the future employment environment, training human resources tailored to the real needs of society, establishing an interrelationship between medical education and health care, training how to care for chronic and common diseases in the region, and learning behavioral sciences and process skills (problem statement, problem-solving, decision-making, research, and assessment). In this educational system, the physician no longer seeks treatment without considering the economic, social, cultural, and other dimensions affecting the patient.\textsuperscript{[14]} Since many GPs are currently working as family physicians in this program, a review of the medical education course is essential to obtain the professional qualifications required by family medicine. Although this review is a fundamental and radical solution but requires considerable time.

Although the current method of training family physicians does not meet the required quantitative and qualitative dimensions, on the one hand, because most developed countries have moved toward training this specialty, we must also move in this direction, and on the other hand, any objections to quantity and quality of these training programs will lead officials to be eliminated, just like in the field of social medicine. Therefore, the participants insisted unanimously to declare that the best method of family physician training is the specialty method, but to achieve the desired results in a shorter time, designing and implementing continuous and effective medical training for general practitioners is very helpful. In-service training is one of the inevitable interventions of retraining and innovation that is essential in improving health services.\textsuperscript{[17]} The results of a study in Colombia that examined the effectiveness of an educational program aimed at increasing family physicians’ skills in improving mental health care for children and adolescents showed that the program was able to significantly improve family physicians’ skills to detect mental disorders in children and adolescents, and led to an increase in the clinical self-confidence of these physicians in the diagnosis and treatment of mental disorders.\textsuperscript{[18]} In a study in Jordan, about 60% of family physicians who did not use evidence-based medicine in their daily care stated that they needed in-service training to use evidence-based medicine and ensure its effectiveness.\textsuperscript{[19]}

In this study, family physician training methods were scored based on the effective factors of STEEPV and finally FPBP method was selected as the best method. The FPBP as a short-term empowerment program for physicians is implemented according to general practitioners’ blended work schedule, including online, face-to-face, and practical outpatient care training, in CCHS, and physicians learn about age-based service packages, as well as how to work with the Integrated Health System. In this format, there is a constant interaction between the instructor and the learner.

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