CHALLENGES OF ESTABLISHING SPECIALTY REFERRAL SYSTEM IN IRAN'S HEALTH SECTOR (A QUALITATIVE STUDY)

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ABSTRACT

Introduction*: The specialty referral process, as an essential part of primary health care, is fundamentally important for the provision of optimal health services. The goal of establishing a functional referral system has yet to be achieved in Iran. This study aimed to explore health expert's viewpoints about challenges of developing and implementing referral system in rural Iran and towns with populations under 20,000.*

Material and methods*: We conducted a qualitative study through five focus group discussions (FGDs), 27 face-to-face, semi-structured interviews at national, provincial, and local levels with family physicians (FPs), clinical specialist physicians, policy-makers, and managers of insurance organizations. Key informants were selected using purposive sampling. Themes were identified using the inductive-deductive framework analysis approach. The barriers and challenges of establishing functional referral system in Iran were identified in a form of six main themes as: service delivery, health workforce, health information systems, access to essential medicines, financing, and leadership/governance.*

Results*: Better care for the patients is provided when health care providers and patients work as a team to allow for a smooth patient journey through the health care system.*

Conclusion*: Therefore, a comprehensive reform in FP's roles and positions, health information system, as well as strengthening the health leadership and management infrastructure is recommended.*

Keywords: *consultation, referral system, referral process, family physician, qualitative research.*

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Introduction

The referral system is a health care process in which the responsibility for the patient's care is transferred and shared for particular purposes between the referring and receiving providers[(1)]. Referral networks in developing countries are insufficiently developed, weak, or do not even exist[(2)], but some developed countries, such as the UK, Scotland, Denmark, Norway, Finland, The Netherlands, New Zealand, Australia, Canada, and the United States have adopted new electronic referral systems[(3)]. The recently-adopted, new modality of referral systems in developed countries is characterized by their success elements, such as political support, commitment to standards, use of collaboratively agreed-upon referral guidelines, template–based information exchange, full access to patient's information by authorized providers, centralized referral triage, and some other key influential attributes[(3)]. Iran, as a middle income country, established a universal Primary Health Care (PHC) network in 1985.

According to some research evidence, although PHC in Iran has actively and effectively implemented some key strategies, it has not been completed, and the lack of communications in an iterative fashion between tiered system of health care has been considered as a main disadvantage of PHC in Iran[4]. Despite the emphasis of Iran's upstream-centered laws, a functional referral system has not established to date, and there is no comprehensive and strong data to make a clear picture and contribute to practical solutions to expand the program through all areas[5]. No qualitative study has addressed the key stakeholder's perceptions about the real challenges associated with establishing a referral system. The aim of this study was to conduct an in-depth investigation and explore the stakeholder's perspectives of the challenges related to establishing a referral system in rural Iran.

Materials and Methods

Setting and recruitment

We conducted qualitative study using purposive sampling at national, provincial, and local levels. Data related to provincial and local levels was obtained in East-Azerbaijan province, North-west of Iran. Focus Group Discussions (FGDs) and interviews were conducted from January until September 2015. Participants were working as Family Physicians (FPs), Specialist Physicians (SPs), and health experts with managerial and decision making experiences as well as health policy makers and insurance organization experts who were familiar with referral system. Table 1 shows the characteristics of the participants.

Sphere of activity	Gender (F/M)	Number of participants	Years of service	Age in years	Methods of data collection
Deputy Minister of Health	M	2	25	48-55	Individual interview
Chancellor of University of Medical Sciences	M	1	20	50	
Vice Chancellor for Health	M	2	20 to 25	46-54	
Head of Hospitals	M	2	20 to 25	45-55	
FP	9 F, 9 M	18	15 to 20	35-57	FGD
SP	3 F, 12 M	15	17 to 24	46-55	Individual interview
Insurance organizations	1 F, 2 M	3	15 to 22	35-45	
	3 F, 18 M	21	15 to 20	35-50	FGD
Other managerial positions	M	2	16 to 20	50-55	Individual interview

Table 1: Characteristics of the participants.

Data collection and data analysis

Data were collected via 27 face-to-face, semi-structured interviews and five FGDs. A content analysis of important documents (various versions of instructions for establishing a referral system and family medicine capabilities in rural and urban areas, along with related materials on formal and national websites, commonly-used referral forms, and clinical guidelines produced at the national and provincial levels was also conducted by Ministry of Health and Medical Education (MOHME) and the medical universities. Supplementary notes were taken during the interviews. All of the FGDs and interviews were completed in the participants' offices based on their preferences. The participants were informed of the aim of the study and the voluntary nature of their participation. The number of participants was fitted to the data saturation. The interviews were continued until it was apparent that no new information was being produced by the participants. After each interview, we transcribed, typed, and stored the data immediately. Through iterative amalgamation, the texts and documents were examined and reviewed several times. A mixed inductive-deductive approach including MAXQDA 10 (VERBI software, Germany 7) was used for coding and analyzing the data. Considering that the referral system and the Family Physician Program (FPP) would have multi-faceted natures, we selected the WHO's framework with the aim of covering key functions and dimensions of the referral system. The framework was comprised of the following six dimensions, service delivery, health workforce, health information systems, access to essential medicines, financing, and leadership/governance[6].

In this study, in addition to prolonged engagement of researchers, the member check technique was used to enhance the credibility of the data. Using this technique, participants had the opportunity to understand, assess, and correct any interpretations that they perceived to be incorrect. We also returned transcripts for some key informants to review the accuracy of codes and interpretations. To ensure reliability, the structured process from the start of the research, including the collection, analysis, and interpretation of the qualitative data was used. We piloted the interview guide with 10 participants who were not a part of the study to consider the number, order, and content of questions.

Ethical consideration

The study was approved by the ethic committee of Tabriz University of Medical Sciences (approval number 5/95/4389 in December 25, 2014). We explained the aims and objectives of our study to all participants. We also obtained informed consent prior to collecting any data from the participants.

Results

The elements of the WHO's model as six main themes, service delivery, health workforce, health information systems, access to essential medicines, financing, and leadership/governance were selected. There also were 12 subthemes and 22 issues that reflected the health experts' understanding of the challenges associated with establishing an effective referral system in rural Iran.

Theme 1: Service delivery

This theme is concerned with the contextual issues and existing conditions of the provided services. The findings related to this section are summarized under one subtheme and two issues (Table 2).

Themes	Subthemes	Issues
Service delivery	Communication, coordination, and cooperation	-Two way communication process -Time of admission
Health workforce	Medical education system	- Purely theoretical education - Specialization - Education about the nature and content of a referral system
	Workforce motivation	- Incentives for admission of referred patients
	Workforce deployment	- Recruitment of required personnel
Health information systems	Referral guidelines	- Collaboratively agreed upon guidelines - More emphasis on textbooks
	Electronic health record	- patient's health information history
	Referral template	- Non-standard referral template
Access to essential medicines	Access to essential drug and equipment in primary and referral centers	- The number of medicines - The quality of medicines
Financing	Disease-oriented payments	- Dominancy of contradictory payment methods
	Different insurance funds	- Frequent replacement of insurance funds - Implementation of specific programs
Leadership/ Governance	PHC network structure	- Incomplete development of network infrastructure
	Policy making and Managerial instability	- Instability of policy making and management of FPP - hasty implementation of the FPP

Table 2: Thematic framework explaining the themes, sub-themes, and issues associated with the factors that influenced the implementation of referral system in rural Iran.

Communication, coordination, and cooperation

The participants believed that better transfer of patient information to the specialist, communicating findings to the referring physician and negotiation of patients, referring physician and specialists about continuing care arrangements may improve care coordination. According to the participants, the admission units in referral centers do not have sufficient clarity in their work process. Interviewees stated that patients are usually guided inappropriately by the admission units. They thought that referring patients without specifying the receiving physician's name caused confusion in the patients.

"*General Physicians (GP) was referring patients and writing: internist, psychiatrist...while it wasn't clear to go to which specialist. Admission unit had sent a patient with some psychiatric disorders to an infectious disease specialist*."(Participant 10, a former vice chancellor for health).

Theme 2: Health workforce

Knowledge, skills, motivation, supply, and preparation of required personnel have a key effect in the population's health outcomes. Many participants thought that the Iranian medical education system and the motivation of the work force have had considerable effect on the referral system.

Medical education system

Many interviewees pointed out some problems with the Iranian medical education system that influence the establishment of a referral system. They thought that the existing medical education system provides some education but that it is mainly theoretical and useless.

Most of the participants thought that there is a strength tendency toward specialized courses for medical students. Such a tendency makes them reluctant to work in hospital departments or to visit patients. Also there is a great interest among medical students to enter a residency courses for their future benefits.

"*Medical students are usually unwilling to work in hospital wards, to visit a patient and …in any way he/she thinks that his/her admission to specialized courses will bring benefits. However, in current medical education system, we have a health science instead of practices*." (Participant 21, an internist).

The research participants pointed out the noncompliance of the medical education system with the nature and content of a referral system. They

thought that physicians had not been trained in a way that they can work in a referral system.

Workforce motivation

According to the participants, clinical specialists have no incentive for the admission of referred patients. They thought that no priority is given to the admission of referral patients because no incentives have been provided to do so. Also, it was pointed out that there are no penalties associated with their lack of cooperation with referral patients.

"Clinical specialists don't consider any priority in admission and treatment of referred patients. No matter for them that their patient is referred by general physician or by themselves." Participant 22 (a neonatologist).

Workforce deployment

The participants emphasized that the recruitment of the required well-trained personnel for each level of health service delivery is vitally important in establishing an efficient referral system. They also thought that physicians and other primary health staff should cover an appropriate population number.

Theme 3: Health information systems

The theme of health information system refers to how the information is being transferred between the providers and service levels. In addition, the participants highlighted that format of the information must meet the needs of multiple users. This theme can be divided into three subthemes, referral guidelines, electronic health records, and a referral letter template.

Referral guidelines

The participants thought that the referral guidelines were being developing mainly by people who are unfamiliar with the system. They also pointed to the guidelines as being purely scientific and copied from other societies, which made them difficult to execute and use in Iranian society.

The participants emphasized the other problems associated with lack of local and national guidelines. Most of the interviewees highlighted the lack of guidelines for all groups of conditions. They also stated that the Iranian medical education system is focused on textbooks instead of guidelines.

"*Most of guidelines are developed for simple and easy to reach cases .In many cases, we have no national or localized guidelines. Currently, we focus on textbooks more than guidelines.*" (Participant 8, specialist in infectious diseases).

Electronic health record

Participants believed that the developed countries have been successful in embedding a referral system within electronic health records. This incorporation leads to accessibility of relevant past history and streamlined Information transfer between providers. The participants highlighted the problems of inaccessibility to patients' histories.

"*Due to lack of patient's codified records, accessibility to patient's past relevant information is impossible. Conditions are investigated without considering history of treatments and already prescribed medicines. Due to lack of relevant information, it doesn't spend much time about patient's medical problems.*"(Participant 19, head of teaching hospital).

Referral template

Most of the participants stated that the referral of patients requires an adequate exchange of information. They thought that the existing referral process results in substantial gaps in the information that is exchanged.

"*The referral sheet which is used by GPs is an open sheet for all groups of conditions. This form is designed in a way that there isn't the possibility of providing relevant information in a timely and structured manner*". (Participant 20, a hematologist).

Theme 4: Access to essential medicines

This theme refers to the extent to which the essential drugs, equipment, expendable materials, and other facilities are available and accessible in primary and referral centers.

Access to essential drug and equipment in primary and referral centers

Majority of the participants highlighted the availability and accessibility of drug and equipment in the first level of services delivery. They thought that low availability, high prices, and poor affordability of medicines were key impediments to establishing a referral system.

"*Availability and accessibility of a large number of drugs is essential activity to building trust in our society. Provision of essential drugs at a price that individuals and the community can afford makes positive sense that primary health centers*

are effective and don't prolong the care process." (Participant 5, an urologist).

Theme 5: Financing

The majority of participants highlighted that the current use of financial resources is not consistent with health-based policies. They also emphasized that different insurance organizations, with their different regulations and weak pooling systems, are key impediments to establishing a referral system in Iran.

Disease-oriented payment

Most of the participants stated that financial resources are not being allocated in accordance with health-based policies. They thought that the health funds were being spent based on disease-oriented policies. In other words, they stated that the funds are used to treat the population's diseases rather than to help ensure that they are healthy.

"*The rural health care provider, who acts as a FP, isn't familiar with the concept of FPP. He/she is waiting for the patient to arrive and initiate treatment. Until we pay money based on population's disease, system's limited resources will be waste*." (FGD 4, Participant 3, an insurance expert).

Different insurance funds

The participants stated that, due to the existence of various insurance funds, patients frequently wish to change their insurance fund. They believed that villagers perfect to have insurance coverage other than national insurance system.

Different insurance funds implement independent programs. Individually-implemented insurance programs follow different policies, which results in fragmentation and a weak pooling system in insurance organizations.

"*There are four or five insurance organizations, with different regulations. It may be better to build more coordination or integration between them*." (FGD 5, Participant 1, an insurance expert).

Theme 6: Leadership/governance

This theme is concerned with issues related to policy making, managing topics, and structural factors, and it included two subthemes, 1) the structure of the PHC network and 2) policy making and managerial instability.

Structure of the PHC network

Despite the promotion of health indices in the early years of the implementation of PHC and following the emerging new challenges for health systems, currently, the PHC in Iran has lost its flexibility to respond to new needs. Some of the participants stated that, to date, the structure of the health system has not been formed completely. They thought that the functions and roles of the "Behvarz", the community health workers, have been defined and implemented in detail, but they thought there was no such distinct role and function for GPs. They also believed that the gaps in the Iranian health system begins from the FPs' positions and continues between the other levels of health services.

"*Our health system has not been yet completed structurally. Concept and definition of FPP and referral system hasn't operationalized in Iranian health system. The two- way and iteratively intra-professional relationships has not established systematically*." (Participant 15, an embryologist).

Policy making and managerial instability

An important issue in establishing and implementing a referral system is the frequent replacement of policy makers and managers of FPP. The participants thought that the lack of policy making and managerial stability, weak implementation, and not using the available legal opportunities have had a considerable negative effect on establishing a referral system.

"*One of the major drawbacks relates to macro level of system. Our policy makers and managers of relevant organizations are usually unstable. Frequently replacements of managers and policy makers before any consensus on implementation of FPP have prevented the referral system to be established*." (Participant 14, a former deputy minister of health).

Most participants believed that the implementation of FPP and the referral system was started too hastily and indiscreetly. They stated that the implementation of FPP began without paying any attention to its prerequisites. They highlighted that a step-by-step approach is required in the implementation of an effective FPP and referral system.

"*As a result of hastily implementation of FPP and referral system in rural areas, we saw something which is similar to a low birth weight infant. Extension of this plan and referral system into large cities without removal of mistakes will bring abnormalities*." (Participant 3, Specialist in Community Medicine).

Discussion

In this study we investigated the development and challenges of implementing referral system from the viewpoints of a wide range of key stakeholders. The findings of our study indicated that establishing an effective referral system between the care and cure sections of the health system depends significantly on the deployment of knowledgeable, skillful, and motivated health workers, a sound and reliable health information system, the availability and accessibility of essential medicines, sustainable financing and efficient payment methods, and accountable governance and leadership.

Iranian referral system hasn't been incorporated in an electronic patient record. Lack of this capability has hindered progress toward establishing functional referral system in rural areas. It seems that whenever a medical education system and its curriculum are not well matched with FPP's implementation requirements, the decision regarding establishing a referral system would likely result in failure.

Several studies[7] have focused on that effective leadership and management are essential components of today's work environment, especially in the health sector to scaling up the quantity and quality of health services and to improve the population's health. Our research found that the frequent changes in managerial and policy making levels were a great impediment for establishing a referral system. As a result of managerial instabilities, disagreements about FP principles, the hasty implementation of FPP, and the incomplete network structure, there have been delay of several years and many problems in establishing a referral system. For the Iranian health system to have a functional referral system, it is essential to ensure that various elements of health system work together and communicate effectively. Despite the past 10 years of introducing and implementing FPP in Iran, the expected referral system has not yet been established in a complete and accurate manner.

Conclusions

This study identified several challenges facing the establishment of an effective referral system in Iran. After 10 years of work on FPP implementation and a referral system in Iran, the main problem that is impeding progress is the inability to establish and expand the program throughout the country.

Comprehensive reform in FP roles and position, health information system, financing and payment methods, strengthening of health leadership and management infrastructure, community information and involvement and more studies are recommended. Better care for the patients is provided when health care providers and patients work as a team to allow for a smooth patient journey through the health care system. Communications between different levels of health system promote the philosophy of one patient, one plan, and one team.

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