

A Survey on Exploring the Dimensions of Access to Medical Services

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Abstract: In medical care services and health system studies, having access to concepts of system organization such as financing and offering services are quite important. Accessibility is an important political symbol which is a major goal for health policy makers; therefore, the aim of present study is to discuss major aspects of existing theories to support accessibility and measuring the accessibility standards in the health care system. Application of effective factors on supporting theories of access to health care services for the exploration of the concepts of access dimensions was evaluated. More specifically, greater recognition needed with a special focus on aspects of access and in such a ways to develop accessibility. The dimensions of access are dynamic processes that are potentially effective on individuals and families' learning and changing in their behavior; but these kinds of learning and adaptation has received less experimental research elucidation in access to health care services. Services operational measures were realized by such geographic, technological and economic dimensions, access to health personnel, access to regular sources of care, convenient services, the level of actual use and the use of services based on needs and customer satisfactions. In an overall scale among other health influential factors; without considering the dimensions of access, the access may have a share of 25 percent while other social factors such as economic, biological, genetic and physical factors may have significant roles. More research has to focus on dynamic aspects of access and one should try to understand the health care system improvements. One has to realize and utilize the access models due to their reflecting actual services which was directly formulated in health - therapy policies.

Key words: Access model • Dimensions • Health Services • Medical Care • Therapy

INTRODUCTION

Generally, access to health services has encountered to some serious questions: for whom and why access should be created? It has a simple answer that access to medical care must be provided for anyone who needs it, in other words non-medical aspects such as type of society that the person is living in, his gender, geographic location and ability to pay for the services should not determine the kind of access to medical care and services. The issue of having access to medical services is the main purpose and rational for all health systems and health policy makers. World widely, improving access to medical care is one of the most important challenges and crucial problem as health systems are facing; therefore, emphasize on such issue is very important which benefits and gives proper care to all people.

Access and health care are two keys for growth indices in all countries and the health is in fact considered an undeniable right of every human; therefore all governments are bound and required to provide the minimum level of health care accordingly [1]. One of the valuable factors in providing health care and its improvement is access to medical services [2]. The term access to health services is great concern that would focuses on groups and everyone who should receive health services based on their needs. Due to provided definitions and deep understandings of access, people contrast equitable access with insurance coverage or having enough physicians and hospitals in the region they live in; but having insurance or being close to medical services centers does not ensure that anyone who needs the service will receive as required [3]. On the other hand, there are some people who lack of insurance

coverage or do not live near the medical centers or even does not have sufficient funds to pay medical bills but they deserve to receive the kind of care they need. Therefore, a more precise definition should be suggested which defines access as timely making use of health services to achieve quality services. The best health results of which the most important characteristic is that the use of health services and health outcomes and results can be used as a scale for judging whether the access is performed or not. Regardless of the size or wealth of any countries, in all countries, the health and public health services practices are important issues and health care providers and professionals are working in the area of resources to provide the highest quality and most appropriate care with equal distribution of the services.

Medical services are considered as a fundamental factor to the health service system. This is more noticeable that many of the population are unable to provide prerequisites for their health care and health policies the therapeutic principles and methods are not practical enough in providing medical care [4]. In our way to achieve equality in health care system, there are effective solutions, including the continuous sections of the community and easy access to needed health services, to inform people of their rights regarding the health system and how to get a fair participation of families in health costs cited [5]. Lack of access to health services in different countries, depending on other factors such as economic and social patterns are different and have a specific pattern [1]. Some research scientists have noticed that the most important component of some access is the capability which refers to the real understanding of medical services of which are the barriers include lack of knowledge, poor quality services, costs and lack of confidence on medical staffs [6].

The access condition controllers may not be able to consider the access problems and their related reasons in various structural, financial, personnel, insurance, services providers, underlying population structure and the environment and structural features. They should plan on and push forward theories with suitable orientations. They should have access to various groups of people on their kind of services used [3]. Therefore, considering the results of the conducted research in this respect and having various sorts of access to health care services; among several groups and individuals and lack of absolute and effective indicators and dimensions in real access to health services in Iran. In this study, research were carried out to evaluate various dimensions and indicators to define and understand the concepts of accessibility of medical services.

MATERIALS AND METHODS

In this work, the concept of access dimensions was evaluated by means of applying a critical review on main issues of the major supporting theories and the effective factors deals with access to health care services. In a serious attempt with more specifically on greater recognition with a special focus on aspects of access and the an innovative method to develop a new approach with the aim of having sufficient access to medical services.

RESULTS AND DISCUSSION

Factors affecting the access to health care and services based on the existing evidence showed that the three key elements of access are included resources, cost and the structure of health care system. These key factors having important impact on access, but some other researchers believed that the role other elements such as health insurance coverage, race and family income may play as some sort influential factors in access of health care plant [7]. The income served as the main index of access in many countries without universal insurance coverage and primarily with private insurance like USA, Australia and New Zealand [3, 8]. Social, economic and geographical characteristics are the important features in determination of location to receive medical care services. Among the significant factors on access to health services which are affecting the individual characteristics and health system would be the health policy at national and local levels. To improve the health care system and also to develop a universal access to medical services, Canadian health policy makers have emphasized the implementation of five principles as listed below:

- Universal plan
- Social provision plan
- Total coverage or comprehensiveness plan
- The mobility of health care and
- The general recognition [9].

There are three types of factors which have highly impact on access include the following:

- Exploratory sampling,
- Being sick and aware of the disease and
- Suffering from the disease and being injured by others [10].

Levin and colleagues [11, 12] believed that Factors affecting access include:

- Providing medical care that would include all related factors such as the existence of a exceptional health care system like appointments system, the distance to medical centers and convenience when spending time at waiting rooms.
- Desirability which is related to the direct and indirect costs of patients in connection with his ability to pay for the services.
- The acceptance which is linked with many social and cultural issues and also related to individual's satisfaction [13].

In additional studies which showed that several factors influenced the access to health services including:

Geographical Factors: The geographical separation of people and services makes inevitable inequality in terms of access to medical services. Therefore, lack of access due to geographic barriers would increase the cost of having sufficient access to health care services and waiting times for MRI and surgery operations (especially for people with low income).

Individual Factors: Other factors such as personal beliefs, individual criticisms, personal concerns and doubts are important in distinguishing the type of services required.

Structural Factors: These factors are related to structural problems and financial aspects which are linked to provider institutes [14].

To achieve a desire access, a committee should be developed to control the access to the medical services at national level which would have sufficient access to national information gathering and information for the analysis of the related factors for the changes in access of medical services. Also, similar organizations should provide technical assistance and consulting to local organizations who are involved in analysis of the indices. Indicators should be directly used with high meticulousness at national level and the extent of structural and financial changes and personnel barriers should be presented [9].

Dimensions of Access to Health Care Services: There are plenty of objective factors which are facilitating or hindering the access to medical services which are

classified as several dimensions to access medical services. Since 1970, researchers were involved in many approaches to access and nowadays having satisfaction on obtaining the dimensions of access which is a multidimensional concept. Therefore, it is essential to have several approaches to access services. The level of access may be coordinated and provided within a unified framework. Having such a framework makes advancement among the researchers in the field of public health and prepare the grounds for talks among researchers and health policymakers and allow access at various levels in different areas. The dimensions of access may be compared based on regional services. Therefore, this framework cannot be a random plan, but rather it must be based on strong arguments, so the access dimensions should cover all aspects of factors affecting on access and also the plan should be expanded broadly [14].

Andersen *et al.* [2] expressed two basic dimensions of the access concepts on the literary side which are state as follows:

- Having equality in access with demographics features such as family income, insurance coverage and people's attitude about health care or the care service system which have been determined by distribution and organization of human and physical resources of hygienic centers.
- Evaluation of health output indicators through talking with patients who has received the services such as the extent of the services they received and their satisfaction level which is known as external credits [2].

Penchansky and others [10, 14, 15] have summarized the dimensions of access in three following aspects:

Availability: That is medical services should be available in required time and place and consist of the suitability or unsuitability of health services in an appropriate place and time including all factors related to specific services given to patients and medical centers distance which is an access index; it should easily be measurable.

Desirability: (Affordability) which refers mostly to financial access and includes a degree of similarity between the cost of health services and the ability of the people to pay and continue their treatment. The affordability may be directly or indirectly related to

medical expenses and the patient's ability to pay. In addition, financing the health system may have directly impact on the desirability aspects of the medical services.

Acceptability: Which includes many social and cultural aspects and shows the degree and extent to which a group of special services to create cultural security. Also the acceptability includes the relationship between patient and service provider who would have influence on each other's attitudes and expectations [14]. Acceptability refers to the cultural access that includes cultural and social gap may exist between the care system and the consumers [16].

Generally, access has four basic dimensions which are stated as follows:

- Desirability (affordability) which includes the cost of care and the ability to search for the suitable treatment.
- Acceptability which refers to the nature of services provided and how individuals and society receive it. The concern about low service provider's facilities and their behavior to patients leads to growing interest in an access acceptability dimension in many countries categorized as high, average and low incomes.
- Adequacy and competence which includes the extent or volume of services to which the service provider organizations meet the expectations of the patients.
- Universality: to better understand the access concept, all components must be considered comprehensively [17]. In each of these dimensions, a number of factors related to supply and demand and multiple layers of indicators which are available for each factor. For example availability includes location of the services, time and type of services, scope, value and quality of the service and health concerns related to people's needs. The range of services depends on the types of personnel services in medical centers that provide services and staff performances. In addition the health services and treatment policies on human resources may be counted [16].

Accessibility and acceptability are investigated in three following components:

- The proportion of health professionals and non-professionals' opinions on the perceptions of patients about the effectiveness of the treatment and development of health structures.
- Dialogue and interaction between patients and service providers with special emphasis on the communicative performances of the service providers.
- Focuses on the methods which health care organizations would respond to patients' reaction on the provided services. For example, the cost of providing services for the patients would create a kind of concern that most service providers are looking for money and not on customers satisfactions or needs [16]. In our discussion on the access to health services, besides favorable economic conditions that cause access to expensive and more specialized services through access to leading physicians and sophisticated facilities, having cultural expertise and understanding let an educated person who has a high educational proficiencies and awareness make a better understanding on his disease as a result of appropriate and accurate interactions and sometimes the cultural fit between physician and patient causes the patients receive the best service that they desired. On the issue of the social property, more relationship between individuals having prominent and professional expertise, the more likely it is to have access to qualified and experienced physicians [6].

Practical evaluation of having access including items such as access to medical personnel, access to regular care sources; convenience at getting the services, actual use level, needs based on use of service and customer satisfaction. Access to health services has geographical, technological and economic dimensions. Therefore, regardless of the access size and in a large scale among the influential health factors, access shares 25 percent of the process and others are social, economic, biologicals, genetic and physical factors which are quite substantial parameters [1].

Regarding the geographical dimension, the travelling time and distance were the most important factors. For the socio-cultural dimension of access, the personal and family problems which are often an obstacle for finding the needed care are very important and crucial problems.

Lewis [18] has evaluated two important aspects of access which are discussed as follows:

- The socio-economic access which focuses on social structure of health care organizations based on community needs.
- Geographical access which refers to the time and location distance that the consumer spend to receive the needed care.

Anderson [2] described the access based on the out coming signs like the actual use of services and personal satisfaction. Other search scientists had described two types of access as stated below:

- The potential access which includes important factors such as geographic distribution and availability of medical cares.
- Revealed access which includes open access to the actual use of services and individuals' satisfaction [19].

Asanin *et al.* [20] have categorized the dimensions of access as follows:

Geographic access which refers to the physical location of service centers and the people's ability to get the needed care in different geographical locations.

Cultural Access: Based on cultural access conditions which includes:

- Having no ethnic, cultural and religious differences
- Having no bad reputation for health center location
- Having no contagious diseases such as tuberculosis
- Having no incongruent subject, content and services methods with ethnic, religious and national customs and tradition. Also geographical and cultural access, geographical area and the population of each region should be specified.

Economic Access: Direct payment for receiving care is considered as the most important factor which prevents people from getting the proper access [20]. Factors associated with access on the "objective" aspect includes the "amount of usage" which refers to the duration of preventive examinations and tests, the doctors visiting time, dentist visits and hospital admissions and its related factors on care giving system. The system included the

following access sub-components such as the physician and population proportion, the population and the bed ratio and the population and the dentist. Predisposing and enabling factors are the most determining on the appropriate use of services and access; since they are open to changes, that should be immediately detected [10].

The important aspects of access to medical services on personal scale includes predisposing factors, enabling factors, needs and organizational factors which have impact on care search (Table 1). Predisposing variables are age, sex, race and education levels which are present at disease outbreak and show people's tendency in using the services. Income is an important indicator in access, besides having a potential role in contribution to equality in access to medical care. It has a great effect on health outcomes such as life expectance, infant mortality in the age range of 1-5 years and the maternity death at the time of childbirth [21].

Another important indicator of access to health care is the individuals' health condition that sick people are more willing to receive care services of all types, but sick people in a social group 1 (low income) are more willing to seek care from public health services while sick people in social group 2 (high income) search for more special care in the private sectors. In the main framework the main features of the population and organization explanation are classified into organizational levels or the individual characteristics which depends on a particular level of experimental performance in all three dimensions. In this particular analysis, the system structural properties such as convenient features and regular use of the services can be easily investigated through customers' satisfaction measurement of the systems and services providers (Table 1).

Predisposing factors, enabling factors and factors related to the needs describe the population features and they also represents the political, geographical and economical condition of the people. Individual access assessment is difficult and expensive, but having more opportunities to determine the relationship between population's specific attitudes on risk factors in a particular area and their performance is important [2].

The amount of use represents an objective measure of the actual access to the provided services by physicians, dentists and hospitals. The dentist's visit may be created for preventing and treating the symptoms or physical limitations of patients. In order to measure the

Table 1: Dimensions of access to medical care and their related indicators

Potential Access		Realized Access	
System (county)	Individual	Objective	Subjective Satisfaction
Availability	Predisposing	Use	Convenience
MD/Population	Age 6 or less	Time since exam	Travel time
Bed/Population	Age 65 or more	Preventive exam	Travel cost
Dentist/Population	Sex	MD visit	Appointment time
Community (county) characteristics	Race	Hospital admission	Waiting time
Predisposing	Education	Dental visits	Visit cost
%65 or over	Enabling	Use relative to needs	Provider behavior
Enabling	Financing	Symptoms response	Time with MD
%below poverty	Income	Use disability	Information
Region	Group insurance	Dental want	MD courtesy
Rural residence	Major medical		Quality
Central city residence	Hospital insurance		overall
Need	Dental insurance		
Infant mortality	MD office insurance		
	Visit cost		
	Organization		
	Regular care source		
	Particular provider		
	Specialty of the provider		
	Travel time		
	Prior appointment		
	Appointment time		
	Waiting time		
	Time with MD		
	Need		
	Perceived health		
	Worry about health		
	Symptoms		
	Dental symptoms		
	Disability days		
	Illness episode		

levels of service use, we can start from the first call with a service provider, the first contact and the overall size of the services received.

Mental indicators of access such as the satisfaction of the service can be easily influenced by factors such as convenient access to medical care, costs and the quality of care and provider's behavior. Improving access to basic health care is the main objective of the planners and policymakers. In fact that is regarded as the basic rights of all people. Although many attempts had been made in the world to conceptualize and evaluate the access, the access practical assessment should be taken into account for the following aspects:

- Availability of health care workers
- Patients' contact with resources of regular care
- Being convenient in receiving services
- The amount of actual use
- Use of the services and their consistency with the required care
- Customer' satisfaction of the services [2].

CONCLUSIONS

Having Access is an important concept in organizing, financing and offering services in the health system studies. Moreover, the accessibility is an important political symbol which is a major goal for health

policy makers. The dimensions of access are dynamic processes that are potentially effective on individuals and families' learning and changing in their behavior, but these kinds of learning and adaptation has received less experimental research and elucidation in access to health care services. Therefore, researchers must focus on the dynamic aspects of access and should try to understand how to improve the care system and use the given access dimensions that reflect the processes of giving services in the real world to formulate and organize better health and- therapeutic policies.

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