Prioritizing research needs: insights from a healthcare organization in Iran

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Abstract

Objectives: The goal of this study was to identify the priority of research needs in a healthcare organization in Iran, based on identification of the problems faced by patients, as the main recipients of healthcare services.

Method: A cross -sectional descriptive study was planned to achieve the objectives of study. The service recipients sample consisted of 400 patients. Given the necessity to gain in-depth insights of the subject matter, a qualitative research design was chosen. A number of 50 interviews were conducted with individuals from among 400 patients. The data was analyzed using ATLAS.ti softwarePrioritizing of the topics was done using Analytical Hierarchy Process (AHP) method and the Expert Choice software.

Results: Based on the issues extracted from the interviews and discourses, 13 research topics were proposed by experts. Among these, the topics "designing the model of premium and complementary franchise payment, proportional to the income, access and enjoyment", "designing the dental services package with specific premium in three basic, complementary and optional levels" and "Presenting the model of disease prevention in healthcare organizations" acquired the highest priority ranked 1 to 3 and earning the scores of 0.63, 0.61 and 0.41, respectively.

Conclusion: Because resources are limited and needs are unlimited, in order to avoid wasting research resources in healthcare organizations, allocating the resources must be based on the extracted priorities; and this is vital to fulfill the organizational objectives.

Key words

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Introduction

The ultimate goal of healthcare system is to improve the health level of society and ensure a reasonable quality of life. In fact, the concept of health is not limited to the absence of diseases, but entails a broader concept of provision of social, psychological and economic wellbeing to the public [34,35]. As such, studies that provide information concerning the design and implementation of efficient healthcare policies, and help in solving existing health problems, can play a significant role in achieving this goal [1]. Given the focus of research organizations in targeting their projects and research initiatives to support the researchers in the emerging and important research areas, that could address the social problems and provide solutions to them, there is a need for determining the research priorities so that the limited resources can be assigned and utilized effectively [2].

Healthcare provider organizations should identify and manage the current and future challenges they confront, both internally and externally, in order to achieve their mission. But it's not always an easy task to do so. While some of the organizational problems and challenges, as well as solutions to them can be identified by managers' controls, others may require a more scientific way and necessitates development of certain executive measures [3] .

According to international organizations involved in health research, only ten percent of the total research capital of the world is spent to tackle almost ninety percent of the peoples' problems throughout the world, mostly on the basis of personal motivation of the researcher or investment by the private sector, the pharmaceutical industry and sometimes by the foreign institutions [3]. More disappointingly, many of the present research centers do their activities without having an accurately planned strategy or a definite framework of short and long term goals in place. Besides, sometimes it is not even clear which aspects of the problems are supposed to be addressed by the researcher within what timeframe [4]. In the case of Iran, research is not necessarily used as a way of learning and exploring the truth or solving a real problem. A lot of research works are done regardless of taking into account the community

needs. Moreover, research is often performed without adopting a strategic thinking; and is restricted to specific centers; most of which are dependent and disintegrated, and suffer from discontinuity [5]. The consequences of this trend include tendency of the researchers to undertake research works that have short-term outputs and based on the individual preferences, rather than focusing of the priorities. In a situation like this, the main purpose of research is restricted to gaining academic degrees and certificates, and the topics selected in most cases are repetition of the previous topics by merely collecting exiting data in order to better explain the problem and not solve it [6].

In developing countries, most medical research take the form of clinical, biomedical and laboratory research, while quite a few researches on health information systems, epidemiological, demographic, behavioral sciences and health economics are undertaken [7]. Despite the desire of the country's medical research community to influence the health promotion of the society, the conventional academic research in this area has not been very successful and has failed to execute effective measures according to the society needs [8] . The students' research projects and theses as well as the health related organizations' research plans which are carried out with abundant effort and by spending much time, man power and costs, which is often not really in line with the real research priorities and essential societal needs. Consequently, these research results are seldom applicable in real-life circumstances [9]. Therefore, in order to make optimal use of resources and pay utmost attention to all groups of stakeholders in the health system, changing the research priorities is an inevitable [10].

Assessing the health needs was considered by the financiers of the health area from of the late 1980s and early 1990s and officially implemented in countries like Britain, America, Sweden, Australia and New Zealand [11]. In 1993, the Council on Health Research for Development (COHRED) was held in Geneva as an international convention. The main role of the Council was cooperating with the countries for acquiring technical and financial support to develop efficient and effective national health research systems[12] .

A study results showed that in universities, approved research centers and in executive departments, the research priority setting process is not so desirable; so that the process of setting research priorities in the country was mainly done using the mental views of researchers and executives, and without systematic use of the information resources or needs assessment; something apparently without the required efficiency [13]. Designing and implementing needs assessment projects involve following a specific practical model that can facilitate the assessment process and increase the accuracy and validity thereof [14]. Of course, such models can be divided into four general categories based on adopting a systematic attitude towards the concept of the need; namely: 1) goal-oriented models; 2) agreement measuring models; 3) problem-oriented models– the one that has been used in this research; and 4) combination models[14]. Given the weakness of application of research results, determining the research priorities is an effective step to address this problem. With the health services organizational goal in mind - that is, preserving

and improving the health of the society - the research priority identification plan was executed using the National Health Research Strategy. Throughout the priority identification process, the present challenges, needs and problems are extracted, the resulting data of which would be have help after materializing the applied results.

Materials and Methods

This is a qualitative descriptive cross-sectional study which has done in 2011. A purposeful sample of 50 participants from among the patients referring to the three kinds of hospitals that had agreement and contract with the Armed Force Insurance Organization in Iran were interviewed, including the military hospitals (thirty participants), government hospitals (ten participants) and private hospitals (ten participants). The entry criteria were willingness of the interviewees for participating in the study and their competency to express the problems. The information was obtained through 5 initial in-depth interviews, followed by 45 semi-structured interviews conducted by one of the authors form February to April 2011. Each interview lasted an average of 45 minutes. Consent for audio-recording of the interviews was obtained, and all interviews were transcribed. Four questions for interviews were used and aimed at capturing opinions of participants about the topic. All interviewees spoke Persian so there was no translation.
The content validation of questions of interview was conducted by 4 assistant professor of health services management and health economics in Health Management Research Center of Baqyatallah University of Medical Sciences.

It should be noted that the transcriptions of interviews were analyzed using Atlas-Ti software [16] and were coded accordingly based on the arising themes, with one or more codes (cross-indexing) wherever appropriate [17]. Authors repeated these steps several times to refine the coded parts and the arising themes [18]. These themes and codes were them compared to the different interviewees' perspectives using the analysis chart. This comparison resulted in modification of the analysis chart. The connection between themes and sub-themes was also investigated. The interpretation of the themes followed a process similar to that explained for indexing [19]. According to the analysis, authors reached 4 themes and 45 codes.

The problem-oriented model was used for needs assessment; that is, the research titles were extracted based on the main problems that the service clients had experienced in relation with the insurer. The framework analysis method was used which comprised of the following five stages: introduction, understanding the conceptual framework, coding, charting, and mapping and interpretation. Initially, a thematic framework was designed based on the analysis of interview discourses, as well as previous literature [16]. This framework was further discussed and analyzed among the researchers, and were validated by checking it against the

transcriptions of interviews.

Then based on the extracted codes, the research topics were suggested and prioritized by a group of 8 health services management experts and health economists using focus group method. The Atlas-Ti software was used for qualitative data analysis. Prioritizing of the topics was done using Analytical Hierarchy Process (AHP) method through Expert Choice software. According to the insurer directors' requirement, the most important criteria for prioritizing the research topics consisted of acceptability, time significance and cost-benefits. Because in the AHP method the topics are compared in pairs, the Expert Group was asked to compare each topic with the other topics and determine its importance in relation with other topics.

Analytical Hierarchy Process (AHP) is one of the most comprehensive designed systems for decision making by different criteria [20]. The model was applied by researchers in order to mould the topics in a hierarchy mode, in which we can consider various quantity and quality criteria. This process involves different choices in making decisions and provides analysis capability for criteria and sub-criteria. Meanwhile this process is based on dual comparison having the capability to facilitate decisions and calculations .

According to requirements set forth by the directors of Armed Force Insurance Organization, the most important criteria for prioritizing the research topics consisted of acceptability, time significance and cost-benefits. Because in the AHP method the topics are compared in pairs, the Expert Group was asked to compare each topic with the other topics and determine its importance in relation with other topics.

Results

Based on the problems extracted in the qualitative part, 13 research topics were proposed by the experts. Among these, the topics "designing the model of premium and complementary franchise payment, proportional to the income, access and enjoyment", "designing the dental services package with specific premium in 3 basic, complementary and optional levels" and "Presenting the model of disease prevention in Health care organization" acquired the priority ranks of 1 to 3, earning the scores of 0.63, 0.61 and 0.41, respectively. Also the topics of "considering and providing solutions to the access problems of the insured residents of the border areas and deprived regions", "continual satisfaction level assessment of the patients' and centers under contract and providing improvement solutions" and "considering the expectation level of the insured covered by the Health Service Organization" acquired the priority ranks of 11th to 13th, earning the scores of 0.17, 0.14 and 0.13, respectively" (Table 1).

Discussion

This study was conducted in six months time. The main question of the research was what problems were the patients (as the main recipients of healthcare services) facing frequently in receiving appropriate services; that could be overcome by the research.

The renowned problem-oriented model was undertaken, which is based on the process of identifying the issues,

problems and flaws in the performance of individuals or organizations and suggesting corrective action to fix the existing flaws [14]. In other words, after identifying the main problems faced by the patients, researchers explored research areas that need extra focus in order to tackle the existing weaknesses. The strong point of the research was engagement of the service clients as the main stakeholders of the organization. The common mistake occurring during needs assessments and prioritizing activities is identifying broad areas of research, instead of determining specific research topics. In this process, the priority research topics should be defined and appropriate funding for them should be provided. Although this seems to be a difficult task, there would be no suitable outcome should we fail doing it. Salient feature of the present research is determining specific research topics instead of determining research area [11].

Most medical research in Iran is done on the available patients, without considering the community's real needs and concerns, the population at risk and the vulnerable groups. The expectation, however is that the medical research should be in line with achieving the ideal level of health care provision; that is, providing health for all, so that the research findings would result in optimum use of services. Needs assessment is therefore the first step in recognizing and understanding the problems [7].Although considering the researchers' particular interests in research centers can be useful, the limited available resources and the necessity of directing the studies towards the whole community's benefits are to be taken into consideration, and the research priorities should be based on the society's requirements [15].

During the past years, numerous studies have been conducted to determine the research priorities and authors have identified the priorities adopting different approach [5, 12, 16]. According to a study conducted by Ibrahimpour et. al (2010), one of the major challenges to sustainable public insurance is that the insurance system is not health-oriented. Hence, one of the research priorities in the present study is considering the establishment procedure of the health system and preventive medicine in Health care organization [17]. Dhnaviyh et.al (2011) research results showed that determining appropriate treatment package in Iran requires a systematic approach to this concept and designing a long term plan Specifying an appropriate treatment package in Iran depends on fundamental research to identify the barriers that exist to this challenge. In this study also, one of the Patients' challenges relating to dental services has been proposed under the research topic titled "Designing the dental services package with specific premium in 3 basic, complementary and optional levels" [18].

Many studies have been undertaken in areas related to the health insurance premiums, indicating the necessity of this issue as a research priority; so that the topic "Designing the model of premium and complementary franchise payment, proportional to the income, access and

enjoyment" has been defined as the first priority of the "Armed Forces Health Care Organization"; something relating to the vertical equity in health [19-22].Results of a study carried out in Iran shows that the supply of medical services in Iran is mostly demand based and not necessarily for fulfilling the needs; and considering the fact that one of the threats of insurance is overuse of services by the insured, maintaining studies relating to consumer behavior is therefore seems necessary. Hence, according to the findings of the present study, "Providing incentive solutions of controlling the health service usage by the insured" has been determined as one of the research priorities[23].

One of the proposed research topics is "Comparative study of receiving franchise in health insurance systems of the world", for which presenting a customized model based on the results of a comparative study is of high importance. Magnussen's study results in Norway titled "equal access for equal need" relating to per capita health care resources, also studies by Petrelli in Italy(2010), Bloom in Colorado, U.S.A.(2011) and Citkina(2002) shows the importance of the issue [24-27].Paying due attention to the quantity and quality of insurance services is essential to any society. Therefore, healthcare organizations can obtain public satisfaction by tackling the main issues that people are facing and trying to solve them. Healthcare organizations should pay more attention to the quality of services and controlling the costs. For the same reason, continuous measurement of satisfaction and expectation level of service clients constitutes one of the research priorities of the organizations [28].

Conclusion

This study has been conducted to determine the main problems faced by patients of healthcare organizations, in order to then prioritize areas of research, so that more practical and fruitful outcomes are obtained and the existing issues of the healthcare system stakeholders are resolved.

Because resources are limited and needs are unlimited, in order to avoid wasting research resources in healthcare organization, allocating the resources must be based on the extracted priorities. This is vital to fulfill the organizational objectives. Future research can test the findings of this research empirically through conducting a quantitative study.

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Table 1: Prioritizing the proposed research topics using the Analytical Hierarchy Process (AHP) Method

Topic	Criteria			Total significance	Consistency rate	Priority
	Acceptability (0.12)	Time significance (0.65)	Cost-benefit(0.22)			
Designing the model of premium and complementary franchise payment, proportional to the income, access and enjoyment	0.09	0.10	0.45	0.63	0.03	1
Designing the dental services package with specific premium in 3 basic, complementary and optional levels	0.09	0.13	0.39	0.61	0.03	2
Presenting the model of disease prevention in Health care organization	0.04	0.11	0.25	0.41	0.02	3
Considering the establishment procedure of the health system and preventive medicine in Health care organization	0.08	0.11	0.18	0.39	0.02	4
Providing incentive solutions of controlling the health service usage by the insured	0.05	0.05	0.26	0.36	0.02	5
Comparative study of per capita in countries regarding commitments	0.05	0.08	0.20	0.33	0.01	6
Supportive insurance pathology and the corrective solutions	0.04	0.07	0.21	0.32	0.01	7
Comparative study of receiving franchise in health insurance systems of the world	0.03	0.06	0.22	0.31	0.01	8
Considering the relationship between the franchise and moral risk of the insured (service overuse)	0.03	0.03	0.22	0.29	0.01	9
Considering the repetitive reference of the insured	0.02	0.04	0.17	0.24	0.01	10
Considering and providing solutions to the access problems of the insured residents of the border areas and deprived regions	0.01	0.03	0.12	0.17	0.01	11
Continual satisfaction level assessment of the patients' and centers under contract and providing improvement solutions	0.02	0.02	0.11	0.14	0.01	12
Considering the expectation level of the insured covered by the Health Service Organization	0.02	0.02	0.09	0.13	0.01	13