Patient satisfaction with Urban and Rural Insurance and Family Physician Program in Iran

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Abstract

Objective: The family physician program is one of the basic programs of the Fourth Plan on Economic, Social and Cultural Development in the health sector. This program more than five years old, is currently deployed in all villages and urban areas with populations less than 20,000 people in Iran. This study was conducted with the aim of measuring User's Satisfaction with Family Physician Program in Markazi Province in the fall of 2010. The main objective of this study was determining client satisfaction with family physician program in Markazi Province.

Materials and methods: This study is descriptive – analytic and cross sectional, and was conducted at 40 medical centers with family physician services in the province. Demographic characteristics of individuals, personnel behavior, time spent in consultations, guidance and training, service costs, adequacy of services, ability and skills of personnel, access to medical facilities, adequacy of facilities and equipment, were the basis of a questionnaire and interview of registered patients or their relatives, was conducted.

Results: 391 people were interviewed during the three months. The average age was 38.24±17.02 years, 66.5 percent of them were women and 81.3 percent of women were married. 34.52 percent of patients in the high or very high categories were satisfied with the whole performance of health centers. This High or very high level of satisfaction was about the performance of family physicians, midwives, laboratory and pharmacy, respectively 33.1, 37.1, 36.8 and 38.3.

Conclusion: In general, the program has been successful in the province. Policymakers can achieve a higher level of satisfaction in the long term based on comments from service recipients and promoting the program and some program processes.

Keywords: Satisfaction, Family physician, Rural and urban health center, Arak University of Medical Sciences

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Introduction

Primary Health Care (PHC) is defined essential health care; based on practical, scientifically sound, and socially acceptable method and technology; universally accessible to all in the community through their full participation; at an affordable cost; and geared toward self–reliance and self–determination (1).

PHC is an important and vital part of any country's health system and deeply effects economical and social development of the society along with its individuals' functionality. Also, it is the first level of contact of all individuals and families with their national health system.

The Iranian primary health care system was established to improve access to health care for the disadvantaged and reduce the gap between health outcomes in urban and rural areas. Today, in Iran PHC is delivered by family physician team in the rural areas and urban areas (2).

Family Physician Program has been launched since 2005 as a fundamental health plan in Iran. Currently, all residents of villages and towns in the country, with under 20,000 people have benefited by equal conditions and convenient access to health services from this program. The given population was determined for a team of family physicians (about 2000 to 4000 people per team). Family physician teams currently contain: GPs, midwives, providers of laboratory services and pharmaceutical services. In this plan the person responsible for the health team is a Family Physician (GP), and may refer patients to specialized levels, as well. Short–term results of this plan:

- *Services provided to 23 million rural and urban populations under 2000 people per sector;*
- *5460 GPs employed in the program; This number, 2,711, has been absorbed from the non–governmental sector;*
- *Establishment of a GP in more than 73 percent of the country's rural health centers including the one doctor for 4,000 persons (95 percent of health centers in the country have one doctor for every 6,000 people);*
- *3946 midwives employed in the program; this number, 3,514 has been absorbed from the non–governmental sector; and*
- *Promotional doctor population ratio of about one doctor for every 9,000 people in rural areas to about one doctor for every 4,395 people in rural, the increased coverage and access to rural population rate is 100 percent (3).*

Considering that this program is one of the most expensive units in the country's health system; it absorbs a large part of the financial resources and is a very important position and has a heavy responsibility, and also despite almost five years after the implementation of this important national project, a comprehensive evaluation has yet to be done.

Both direct and indirect outcome measures have been developed to assess the outcomes of health care from the viewpoint of health care professionals. However, more recent studies have emphasized the need for assessment methods to measure patient perceptions of health care quality, given that their perceptions can differ from those of professionals.

Thus, patient perceptions have become an important indicator in the evaluation and improvement of quality of health care (4). Obtaining feedback from patients about quality of primary healthcare is a powerful way to develop more patient–centered approaches to health care delivery (5).

There is general agreement that customer satisfaction is an integral component of service quality and expanded definitions of health service quality typically make explicit mention of patient satisfaction. The argument has been offered that the effectiveness of health care is determined, in some degree, by consumers' satisfaction with the services provided. Support for this view has been found in studies that have reported a satisfied patient is more likely to comply with the medical treatment prescribed, more likely to provide medically relevant information to the provider, and more likely to continue using medical services (6).

Donabedian suggests that 'patient satisfaction may be considered to be one of the desired outcomes of care; information about patient satisfaction should be as indispensable to assessment of quality as to the design and management of health care systems' (7).

Patient satisfaction has emerged as an increasingly important health outcome and is currently used for four related but distinct purposes:

- *to compare different health care programs or systems;*
- *to evaluate the quality of care;*
- *to identify which aspects of a service need to be changed to improve patient satisfaction; and*
- *to assist organizations in identifying consumers likely to disenroll (8).*

The concept of satisfaction is very complicated and far from clear. It is influenced by cultural, socio–

demo-graphic, cognitive and affective components (9). A major problem is to subdivide the term ***'satisfaction'*** into areas which are easy to understand and measure, and which provide useful results so that practical conclusions can be drawn by administrators and health service providers to improve the quality of care. Many theories include patients' expectations as the basic concept of satisfaction (10–13). A traditional definition of satisfaction is therefore the degree of congruence between expectation and accomplishment (14–15).

Logically, we have to know what patients expect before we ask them about their satisfaction with the care they received. Consequently, the involvement of patients in the development of an instrument to measure satisfaction is very important and must be an integral part of development (16–17).

Patient satisfaction is defined here in Oliver's terms: that it is the patient's fulfillment response (18). It is a judgment that a health worker gives a pleasurable level of consumption–related fulfillment. In other words, it is the overall level of contentment with a service / product experience.

Materials and Methods

We performed a cross sectional study on a sample of 391 patients visiting family medical doctors in 40 health service centres from 4 October to 4 December 2010.

Health centres in the study were selected randomly from the 100 Executive Centre Project, which includes 70 family physicians in rural health centres and 30 family physicians in urban health centres. We interviewed all attending patients. In the cases where the patients were younger than 18 years or were not able to respond due to poor literacy their parents or accompanying person responded on their behalf.

Information was collected by interviewers using a questionnaire. The questions were selected from a published standardized questionnaires and papers.

We measured personnel behaviour, time consumption, tips and training costs, services, service adequacy, capability and skills of personnel, access to medical facilities, adequate equipment and facilities, according to each family doctor program units with very low scale, low, medium, high and very high (in accordance with the moral considerations). For quantifying level of satisfaction patients responded on a scale of five points from 1 to 5, where 1 depicts the lowest level and 5 the highest level of satisfaction. Besides questions to measure patient satisfaction, the questionnaire also included questions about patients' demographic information (age, sex, occupation, educational level, and marital status).

Table 1: Socio–demographic data of the total sample

Variables	No.	Percent
Sex		
Men	260	66.5
Women	131	33.5
Age group		
< 18	37	9.5
18–35	170	43.5
35–60	136	34.8
> 60	48	12.3
Literacy status		
Illiterate	107	27.4
1–4 class	60	15.3
5–8 class	91	23.3
9–11 class	77	19.7
12 class	51	13
14 class	3	0.8
16 class and upper	2	0.5
Occupation		
Employed	95	24.4
Having income without employment	7	1.8
Housekeeper	241	61.8
Student (school or university)	20	5.1
Unemployed (looking for work)	1	0.3
Unemployed	27	6.8
Marital status		
Unmarried	64	16.4
Married	318	81.3
Divorced	1	0.3
Widow (er)	8	2
Place of living		
Town under 20,000	46	8.90
Village	345	66.73

Content validity was assessed by relevant professionals and information from the Department of Health Network Development in Arak University of Medical Sciences. The questionnaire was pilot tested. It is also the first questionnaire developed through an Iranian Family Physician Program.

After collecting data and entering data into the computer the final analysis using Statistical Software SPSS 11.5 using appropriate statistical tests was performed. Reliability of the questionnaire was tested using Cronbach alpha statistic. P–value < 0.05 was considered statistically significant.

Results

Out of 391 patients in the sample 131 (33.5%) were

Table 2: Frequency distribution of reference to different parts of program

	No.
Family Physician	49
Obstetrician	10
Pharmacy	5
Laboratory	3
Other	3
Family Physician – Obstetrician	4
Family Physician – Pharmacy	267
Family Physician – Laboratory	12
Obstetrician – Pharmacy	8
Obstetrician – Laboratory	1
Family Physician – Obstetrician – Pharmacy	7
Family Physician – Obstetrician – Laboratory	1
Family Physician – Laboratory – Pharmacy	18
Obstetrician – Pharmacy – Laboratory	2
Family Physician – Obstetrician – Pharmacy – Laboratory	1

men and 260 women (66.5%). The mean age of the patients was 38. 24 years, with SD 17.02.

Respondents were divided into 4 age groups: less than 18 years, 18–35 years, 35–60 years and above 60 years, with the majority (170, 43.5%) of them 35–18 years old. The majority of primary health care users came from rural settings with doctor offices in the community (56.5%) (Table 1).

Table 3: Patient satisfaction with working hours of health centers

Levels of satisfaction	No.	Percent
Low	80	20.46
Moderate	94	24.06
High	217	55.49

Table 4: Patient comments with working hours to health centers

Working hours	No.	Percent
8–14	87	22.25
7–15	36	9.20
8–12 and 14–18 hours	268	68.54

Table 5: Patient satisfaction with health centers

Levels of satisfaction	No.	Percent
Low	128	32.73
Moderate	128	32.73
High	135	34.52

The majority of respondents were illiterate (27.4%) and the lowest percentage of respondents achieved bachelor or higher degree (0.5%) (Table 1). Respondents were housewives (61.8%) and 81.3% married respondents (Table 1).

Time spent to get to the services (time on the way to the nearest health care centre) was on average 14.6 ± 12.7 minutes. More than half of respondents (n, 52.4%) believed that the distance between their home to the center was suitable for them; 16.8% deemed it unsuitable and other individuals (30.2%) were moderately satisfied with the distance from their home to the place of service delivery.

We found an inverse correlation between satisfaction with the distance between the centers and the home (P–value: < 0.001, r: –0.370).

55.5% of respondents were satisfied or very satisfied with the opening hours of the health centers, and 20.5% of respondents expressed dissatisfaction with the working hours. In 68.5% it was proposed that opening hours of 8–12 and 14–18 hours is appropriate in health centers.

Overall, 34.5% of the respondents were satisfied or very satisfied with the whole program and services provided by the health centers and 32.7% were indecisive and the same percentage were dissatisfied (Table 5).

Table 6 shows client satisfaction with different providers of services in the program, such as family physicians, midwives and providers of pharmaceutical and laboratory services.

Time spent in the waiting room to receive the service was on average 24.5 minutes. Listed reasons for longer waiting were in 77.8%, increase in number of visitors, and in 9.5% the absence of the doctor.

62.2% of respondents had high satisfaction from the time spent in the waiting room. 45.7% of women, who came to be visited by midwife, had waited from reserving theirs turn until being visited.

According to results, there was a significant negative correlation between satisfaction and time spent in the waiting room, thus with increasing the waiting time in the hall, satisfaction decreases. Time spent with a doctor to receive the service was 5.7 ± 3.7 minutes. Here it was found there was significant correlation between satisfaction and time spent receiving service from the doctor. Thus, the satisfaction rate increased with increasing time spent with physicians (P–value: 0.0460, r: 0.108).

81.9% patients had preferred their family doctor to remain for a long time in their clinic. 60% of patients

Table 6: Patient satisfaction with different providers of services in the program

Different parts of program	Levels of satisfaction	Low	Moderate	High
Family Physician	No	119	116	124
	%	33.1	32.3	34.5
Obstetrician	No	10	12	13
	%	28.6	34.3	37.1
Pharmacy	No	11	13	14
	%	28.9	34.2	36.8
Laboratory	No	99	91	118
	%	32.1	29.5	38.3

in response to the question "If you were referred to higher levels, which part would you like to go to?" preferred the public sector than the private sector (20 percent), and 19.5 percent of them did not differ in this regard. 91.1% of clients said they received the required drugs from pharmacies located within the health centers.

Table 7 shows the percentage of satisfaction obtained according to different dimensions and aspects of the family physician program. Among the parameters that influence satisfaction, people, in general, have expressed the most satisfaction with access to medical facilities (67.5%). Following, in order, are guidance and training (56.5%), cost of services (54.7%), adequacy of equipment (47.8%), facilities (45.5%), spending time (45.0%), the adequacy of services (41.4%), the ability and skills of staff (38.6%) and personnel behavior (37.3%).

61.1% had high satisfaction from regular cleaning of the health center. 70.1% of patients had high satisfaction with the approach of the clinic staff with patient entourages.

Between age and satisfaction, the Pearson test showed a direct correlation (or significance) (P: 0.03, r: 0.148). "T" test did not show a correlation between Satisfaction, gender, marital status and statistical relation ($p > 0.05$). Between satisfaction and level of education, Spearman correlation test showed a reverse correlation (P: 0.03, r: 0.149).

Considering the results of the study it can be con-

Table 7: Patient satisfaction with different dimensions and aspects of satisfaction

	Levels of satisfaction	Low	Moderate	High
Personnel behavior	No	119	126	146
	%	30.4	32.2	37.3
Time consuming	No	91	124	176
	%	23.27	31.73	45.01
Guidance and training	No	122	48	221
	%	31.02	12.27	56.52
Cost of Services	No	76	101	214
	%	18.4	25.8	54.73
Adequacy of services	No	113	116	162
	%	28.90	29.66	41.43
Ability and skills of personnel	No	104	136	151
	%	26.59	34.78	38.61
Access to medical facilities	No	44	83	264
	%	11.25	21.22	67.51
Amenities	No	116	97	178
	%	29.7	24.8	45.5
Adequacy of equipment	No	94	110	187
	%	24.1	28.2	47.82

cluded that age, distance between home and clinic and level of education, with the consent of individuals is a significant relationship. Also, there was no significant correlation between gender, marital status, place of residence, and employment with satisfaction items.

Discussion

A comprehensive mode of patient satisfaction has many policy implications in regard to identifying patient needs, developing standards, designing services systems and processes, establishing programs, managing demand and capacity, and delivering the needed quality of services (19). To these ends, measuring satisfaction and service quality is very important.

Patient satisfaction assesses the capacity of health establishments to adapt their organization to patient expectations and needs. Patient satisfaction assessment can be used by health–care providers to help make choices about ways of organizing and providing care, and to evaluate the impact of implementing new health –care management strategies (20).

The level of satisfaction with the family practice program in Iran was shown to be relatively high:

A mean of 67.25% of respondents rated items of the questionnaire excellent or good and only 32.73% of respondents rated them poor or very poor (Table 5). This is close to the findings of Canan et al. (21–22).

A relatively high rate of patient dissatisfaction from family physician centers (32.6%) can be warnings to relevant authorities, so that they can be able to concentrate on the weak points to provide a better and more suitable services for patients and taking the view of patients can be helpful.

Most of the subjects observed, (66.5%) were female. Since most women were housewives, compared with men, they have more opportunity go to health centers during opening hours. Also women, due to a higher sensitivity in the face of disease and physical disorders pay more attention to themselves, and are referring more to these centers. In Kersnik Research 64 percent of women were referred, which is consistent with our study (23).

Based on the results of this study, the average satisfaction score of the program among women is higher than the average male patient satisfaction; but there was no significant difference. This shows that the quality of services determines the patient's satisfaction, and patient sex is not decisive. Results from many similar studies also confirmed this issue (24).

Al Dawood (25) identified sex of the respondents as the most influential factor on the level of satisfaction (males being more satisfied). We also studied the influence of marital status, occupation and position of living of our respondents but, unlike others (26), we did not find that these variables had any influence on our sample patient satisfaction.

In total, 20 percent of respondents were unhappy from delays in centers; this finding is similar Hutchison et al (27), in a recent study, where one–third reported that their family physician was not available.

Previous studies from Aldana et al (28) and Rahman et al (29) also identified long waiting time as a factor contributing to patient dissatisfaction. This dissatisfaction in our study is due to congestion and crowding because most people refer to restricted hours, absence of doctors and poor management of time.

Service orientation of doctors came out as the strongest factor influencing patient satisfaction in the family physician program.

Continuity of care and length of relationship with physicians have, in many other studies, been positively correlated with satisfaction (30–31). It suggests that most clients wish to receive care from a regular personal physician, who knows them and is familiar with their problems.

This study showed that literacy state (literate or illiterate) and age are important markers that should be considered in any plan for the improvement of satisfaction with the family physician program. This study showed that young age and low education level were the variables associated with higher satisfaction. Our study showed that older people gave lower ratings for some organizational aspects of care. These findings are also not supported in another study (23). It has been found that older people are more ready to criticize and have more immodest expectations.

Results of the patient satisfaction scale and of quantification of participants' comments suggested that patients were very satisfied with the access to medical facilities and dissatisfied with the information delivered. However, patients might have altered their respnses, deliberately or not, owing to feeling vulnerable and dependent on staff (32).

The fact that patients were dissatisfied with the information process is in congruence with previous findings and it may indicate a pervasive weakness of providers of services in keeping patients adequately informed (33–34). Delivery of necessary information to patients helps to removing anxiety and increases overall satisfaction (35).

Moreover, in the present study, participants reported that they expected mainly their physician to inform

them about diagnostic tests and treatments, and midwives to give information about their medications. These findings are in line with Merkouris' observations (36). In our opinion, every effort should be applied by family physicians to engage patients in the treatment program and to maximize the amount and adequacy of the information given to patients about conditions and their treatment. Lower educational level was also independently associated with an increased satisfaction with the Family Physician Program.

Although the mean scores on the Family physician program indicate that many patients were satisfied, the range of scores reveals that there were also patients who were not satisfied.

Conclusion

A modern medical system that considers quality assurance one of its priorities should include a patient satisfaction survey routinely in all aspects of service. Clients provided information about their needs and expectations from the health center and increased their involvement in the center's activities.

Patient satisfaction is a multidimensional concept; its main component being the doctor–patient interacttion. To improve the quality of healthcare, personnel of the family physician program should take special care to ensure the quality of their interactions with patients; doctor–patient communication skills should be part of the core curricula for undergraduate and postgraduate education.

For effective communication to take place different providers of services in the program need more time during consultations and better practice management, including an appointment system.

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