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Satisfaction and Dissatisfaction Toward Urban Family Physician Program: A Population Based Study in Shiraz, Southern Iran

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ABSTRACT

Background: A national project of extending a family physician program to urban areas has been started since May 2013 in Iran. The present study aimed to detect correlates of people's satisfaction and dissatisfaction about urban family physician program.

Methods: This cross-sectional and population-based study was conducted in Shiraz, Southern Iran. Multistage and proportional to size random sampling were used. Different items about satisfaction and dissatisfaction toward urban family physician program were queried. Single variable and then multiple variable analyses of data were done using SPSS software (Chicago, IL. USA).

Results: Mean age of 1257 participants in the study was 38.1 ± 13.2 years. Respondents included men (634; 50.4%), married (882; 70.2%), those who were educated at universities (529; 42%) and self-employed groups (405; 32.2%). One thousand fifty-eight (84.1%) were covered by the family physician program. Mean of referral times to a family physician was 2.2 ± 2.9 during the year before the study. Satisfaction toward urban family physician program was high in 198 (15.8%), moderate in 394 (31.3%), and low in 391 (31.1%). Dissatisfaction about this program was more among younger than 51-year-old groups (for 31–50 years odds ratio [OR] =2.3, 95% confidence interval [CI] =1.4–3.7, $P < 0.001$ and for 18–30 years OR = 2, 95% CI = 1.2–3.4, $P = 0.005$), less knowledgeable ones (OR = 2.2, 95% CI = 1.3–3.6, $P = 0.001$), singles (OR = 2.1, 95% CI = 1.2–3.4, $P = 0.003$), and those with more than 4 of family members (OR = 1.3, 95% CI = 1–1.7, $P = 0.05$).

Conclusions: Overall, the majority of the people are not very satisfied with the urban family physician program. This shows the need for a multi-disciplinary approach including training, improvement of infrastructures and referral system, continuous supervision, and frequent monitoring of user's and provider's feedback about this program. According the results, the family physician program should be improved prior to extending this program to other provinces in Iran.

Keywords: Family, knowledge, people, physician, satisfaction, translation, urban

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INTRODUCTION

Attention toward a family physician system as the linchpin of comprehensive medical and preventive

care in the community has been growing in some countries.[1-3] Similarly, development and extension of a family physician and referral system in the whole country has become one of the main focuses of health sector reform and national plans on economic, social, and cultural developments in Iran. Therefore, a family physician program was launched for the 1st time in Iran in 2005 to cover all small cities and rural areas of under 20,000 population. The main objectives of this reform were to enhance accessibility and quality of health care system.[4] However, extension of this program to larger populated areas of the country was dependent on the results of its piloting in two provinces of Fars and Mazandaran in South and North of Iran, respectively. In this pilot, detection of people's feedback has many policy implications to reflect their needs, promote standards, managing demands or capacities, and providing the qualified services.[5] Therefore, after 2.5 years of starting this program, on 8th of July 2012 in all urban areas of Fars province, the present study was aimed to show the correlates of people's satisfaction and dissatisfaction toward urban family physician program in variant domains of experiences, values, and expectations.

METHODS

Study design and participants

This cross-sectional study was lasted from October 2014 to March 2015 in Shiraz, South of Iran. The population of Shiraz (1.5 million) is distributed in seven main postal zones. The sample size was calculated as 1382, considering level of satisfaction of people toward family physician program as 50%, dropout rate of 20%, design effect of 3, 5% error, and a confidence level of 95%. Multistage and proportional to size random sampling were applied based on postal codes.

Study instrument and variables assessment

The selected addresses were sent the questionnaires, and a prepaid reply envelope was provided for the return of the questionnaires. The anonymous-coded questionnaires comprised a brief introductory paragraph about title, aims, identifications, and contact number of executors of this study followed by a consent form that emphasized the right of voluntary participation and confidentiality of information. At each address, one person who was at least 18 years was invited to fill out the questionnaire. Demographic questions were asked followed by queries about being under the coverage of family physician and health insurance systems. The questionnaire also contained questions about comparing preventive and medical care before and after implementation of the family physician system, overall satisfaction (low-moderate-high) toward this program, autonomy in choosing and changing the family physician, referral rate to family physician during the year before this study, taking time by family doctors for conversation and examination of referrals, availability of family physician in nonholidays and holidays, knowing about substitute family physician, medical versus preventive care by family doctor, tidiness and cleanliness of family physician office, distance of family physician office from home or workplace, waiting time at family physician waiting room, family physician team (including at least a general medical doctor and a midwife) approach to clients, phone counseling with family doctor, source of referral in cases of need to more information or having a complaint, average of payment upon each referral to family physician, having a problem in obtaining prescribed drugs by family physician, and having a problem in referrals to specialist family physicians. Moreover, causes of dissatisfaction (if exist) were asked by open questions at the end of questionnaire. The questionnaire was validated by two experts in the family physician program and its reliability according to Cronbach's alpha was 0.64 through piloting of questionnaires on 86 people from different zones. The results of data analysis are shown in the result part and Tables 1 and 2. Moreover, respondent's views about the urban family physician system were collected, summarized, categorized, and presented under seven items of family physician competence, time spent listening and exam the patients, access to family physicians when needed, complexity of the referral systems, waiting time, turnover rate of family physicians, and approach to the clients.

Statistical analysis

All quantitative data were analyzed by SPSS software version 20 (SPSS, Chicago, IL, USA). The correctness of data entry was checked by randomly selecting and re-checking of completed questionnaires against their corresponding data in the SPSS. Chi-square *t*-tests and logistic regression (forward: Wald method) were used. $P < 0.05$ was considered statistically significant.

Ethics statement

Voluntary consent to participate in this study, designing anonymous questionnaire, possibility of access to the executive team via two exclusive phone lines, and retaining confidentiality in all aspects of research were some ethical aspects that were applied. Furthermore, the research's mentioned protocol was accepted by the health policy Research Center's Ethics Committee.

RESULTS

An incredible 91% participation rate (1257/1382) was obtained in this survey and median respondent age was

Table 1: Characteristics of participants in the population-based study, aimed to determine correlates of satisfaction toward urban family physician program, in Shiraz, Southern Iran (*n*=1257)

Item	Amount or *N* (%)
Age (year)	
Mean±SD	38.1±13.2
Median	35
Minimum-maximum	18-90
Family size (*n*)	
Mean±SD	3.9±1.5
Median	4
Minimum-maximum	0-13
Income per month ($)	
Mean±SD	1065.4±1232.7
Median	800
Minimum-maximum	0-20,000
Gender (%)	
Male	634 (50.4)
Female	540 (43)
Marital status (%)	
Single	295 (23.5)
Married	882 (70.2)
Divorced	26 (2.1)
Widowed	25 (2)
Education (%)	
Illiterate	34 (2.7)
Primary school	92 (7.3)
Secondary school	167 (13.3)
High school	402 (32)
Associate or bachelor degree	474 (37.7)
Master or Ph.D. degree	55 (4.4)
Job status (%)	
Self-employed	405 (32.2)
Employed	212 (16.9)
Jobless	514 (40.9)
Position of respondent in the family (%)	
Bread winner	539 (42.9)
Other family member	651 (51.8)
Living alone	32 (2.5)
Place of filling the questionnaire (%)	
Home	997 (79.3)
Work place	193 (15.4)
Main health insurance (%)	
Social Security	764 (60.8)
Iran Health	262 (20.8)
Ministry of Defense	47 (3.7)
Others	46 (3.7)
No insurance	108 (8.6)
Supplementary health insurance (%)	
Yes	479 (38.1)
No	743 (59.1)
Being under coverage of family physician system (%)	
Yes	1058 (84.1)
No	131 (10.4)
Whether family members were under coverage of family physician program (%)	
Yes	1012 (80.5)
No	165 (13.1)

SD=Standard deviation

35 years with a range of 18 and 90 years. Participants included males (634/1257; 50%), married (882/1257; 70%), university educated (529/1257; 42%), and self-employed people (405/1257; 32%) [Table 1].[6] Median family size was 4, and 539/1257 (43%) of the respondents were the main providers of their families. Of 1257, 1119 (89%) and 479 (38%) were under the coverage of either the main or the supplementary health insurance systems, respectively [Table 1]. One thousand fifty-eight of the all respondents (84%) and 1012 (80%) of their families were enrolled in and covered by the family physician program [Table 1]. In total, 864/1257 (69%) knew about the possibility that they could personally select their family physician. Eight hundred eighty-two of 1257 (70%) expressed that they became ill during the year prior to this study, while 700 (56%) visited their family physicians, showing 700 of 882 (79%) referral rate to family physicians. Mean and median of referrals to family physicians in those that were under the coverage of the family physician system were 2.2 ± 2.9 and 2, respectively during the same period. Of all participants, 531 (42%) stated that their family physicians take the time to converse and examine them, while 584 (46%) did not agree that their physician spent enough time. With regard to the family physician's team approach toward clients, 1006 (80%) and 974 (77%) described such approach as fair by their family physicians and as good by family physicians' coworkers. Of 1275, 16% experienced waiting times of up to 15 min, 22% experienced waiting times of 15–0 min, 10% had waiting times of 31–60 min, and 3% experienced waiting times of more than 60 min. Of all respondents, 160 (13%) claimed that their family physicians offered only medical care to them while for 31 (2%), both medical and preventive cares were given. One hundred seventy-eight (14%) had changed their family physicians during the year preceding this study. Of all respondents, 21% paid more money for their visit fee to their family physician than the legally approved tariff, while 212 (17%) had trouble obtaining prescribed drugs and 342 (27%) had problems accessing a recommended specialist physician. Overall, 199/1257 (16%) were not covered by family physician program and most of this group consisted of overlapped subgroups of low knowledgeable people about this program (99%),

Table 2: Correlates of very and less satisfaction toward urban family physician program in population-based study in Shiraz, Southern Iran (*n*=1257)

Characteristic	Very satisfied	Less satisfied	*P*
n	198 (15.8)	1059 (84.2)	<0.001
Age (mean±SD)	40.6±13.3	37.7±13.1	0.005
Gender			
Male	95 (52.5)	539 (54.3)	0.6
Female	86 (47.5)	454 (45.7)	
Marital status			
Single	38 (19.2)	337 (31.8)	<0.001
Married	160 (80.8)	722 (68.2)	
Education			
≤8 years	63 (31.8)	263 (24.8)	0.02
9-12 years	68 (34.3)	334 (31.5)	
>12 years	67 (33.8)	462 (43.6)	
Job status			
Having Job	99 (50)	518 (48.9)	0.7
Jobless	99 (50)	541 (51.1)	
Income per month ($)			
≤1000	63 (31.8)	342 (32.3)	0.5
>1000	24 (12.1)	111 (10.5)	
Family size			
≤2	41 (20.7)	126 (11.9)	0.005
3-4	102 (51.5)	565 (53.4)	
≥5	49 (24.7)	307 (29)	
Position in the family			
Bread winner	102 (51.5)	469 (44.3)	0.06
Other family member	96 (48.5)	590 (55.7)	
Being under coverage of main health insurance system			
Yes	187 (94.4)	962 (90.8)	0.09
No	11 (5.6)	97 (9.2)	
Being under coverage of supplementary health insurance system			
Yes	74 (37.4)	405 (38.2)	0.8
No	124 (62.6)	653 (61.7)	
Location of respondent			
Home	166 (83.8)	831 (78.5)	0.08
Work place	32 (16.2)	228 (21.5)	
Being under coverage of family physician system			
Yes	185 (93.4)	873 (82.4)	<0.001
No	13 (6.6)	186 (17.6)	
Family members were under coverage of family physician program			
Yes	176 (88.9)	836 (78.9)	0.001
No	22 (11.1)	223 (21.1)	
Knowledge toward family physician program			
Low	160 (80.8)	961 (90.7)	<0.001
Mid to high	36 (18.2)	88 (8.3)	
Performance in the family physician' referral system			
Weak	63 (31.8)	512 (48.3)	<0.001
Moderate to good	106 (53.5)	350 (33.1)	

SD=Standard deviation

18–39 years age groups (59%), males (61%), married (61%), those with family size of 3–4 (48%), those who were covered by one of the main health insurance systems (70%), those who were not covered by supplementary health insurance systems (74%), and the self-employed ones (38%). In total, satisfaction regarding the family physician program was rated high in 198 (16%), moderate in 394 (31%), and little to none in 391 (31%). Of all participants, 423 (34%) stated that implementation of family physician program got them in deep trouble to get appropriate services compared to before. Single variable analysis showed that dissatisfaction toward family physician program was more common among people with mean age 37.7 ± 13.1 years, singles, university educated groups, those with family size of at least 5, those who were not covered by the family physician program, those with little knowledge about the family physician program, and people with inappropriate performance regarding what were expected to do by them in the family physician program's referral system [Table 2]. Multiple variable analyses through logistic regression revealed that those who were less satisfied about the urban family physician program were younger than 51 years,(for 31–50 years: odds ratio [OR] = 2.3, 95% confidence interval [CI] = 1.4–3.7 and for 18–30 years: OR = 2, 95% CI = 1.2–3.4), people with inappropriate performance in the family physician program's referral system (OR = 2.3, 95% CI = 1.6–3.4), people with less knowledge about this program (OR = 2.2, 95% CI = 1.3–3.6), singles (OR = 2.1, 95% CI = 1.2–3.4), and those with more than four family members (OR = 1.3, 95% CI = 1–1.7) [Table 3]. Overall, according to the respondent's views, the main causes of dissatisfaction toward family physician system were a perceived lack of family physician competence and lack of time spent listening and exam the patients (46.5%), unavailability of family physicians when needed (20.2%), complexity of the referral systems (18.6%), prolonged waiting time (14.4%), high turnover rate of family physicians (7.3%), and discriminative approach to the clients (5%). The last complaint refers to more attention by family physician toward clients who are not covered by family physician program or refer to family physician offices of their committed working hours and as a result, pay the total cost upon each visit compared to who are under cover of this program and refer to their family physicians in appropriate time and therefore pay much less money.

DISCUSSION

After 8 years of establishing and achieving modest outcomes in the rural family physician program in Iran including substantial gains in preventive programs, especially in hindering problems-related to chronic diseases and better and more regular service delivery in the health centers, the thought of extending this system to urban settings has been the uppermost on the agenda in recent years, as evidenced in the health sector reform of this country.[7,8] Therefore, as a pilot program, this national project was launched in 2012 among 4.5 million people in the Fars province in Southern Iran. After 2.5 years of implementation and as the first official look at how the program was going, this study was conducted to measure the satisfaction and dissatisfaction rate of people with regard to user's satisfaction with this program.[3,5,9,10] We assessed common domains of satisfaction (autonomy regarding choosing and changing their family physician, access to and availability of family physicians, comprehensive care in both medical and preventive domains, payment, waiting time, physical conditions of family physician work place, approach of family physician team (including at least a general medical doctor and a midwife) toward patients, source of reference for providing more information or transfer complaints, and referral system) in hopes of communicating the voice of the people to the policymakers in as nonbiased of a manner as possible. Meanwhile, to increase the confidence about utilization of results by policymakers, we followed all steps of the push and pull model of knowledge translation from

Table 3: Binary logistic regression analysis of significant determinants of dissatisfaction toward urban family physician program in population-based study in Shiraz, Southern Iran (*n*=1257)

Significant predictors*	β	OR† (95% CI)	*P*
Age (compared to above 50 years old)			
18-30 years	0.7	2 (1.2-3.4)	0.005
31-50 years	0.8	2.3 (1.4-3.7)	<0.001
Marital status (single compared to married)	0.7	2.1 (1.2-3.4)	0.003
Family size (family members >4 compared to ≤4)	0.2	1.3 (1-1.7)	0.05
Knowledge about this program (low knowledgeable compared to moderate - high knowledgeable respondents)	0.8	2.2 (1.3-3.6)	0.001
Performance in the family physician program's referral system (poor practiced compared to well-practiced respondents)	0.8	2.3 (1.6-3.4)	<001

*Nonsignificant predictors: Education, position of respondent in the family, being or not under coverage of main health insurance system, location of respondent (during filling the questionnaire), being or not under coverage of family physician system, whether the family members were under coverage of family physician program or not? †OR=Odds ratio, CI=Confidence interval

the very beginning when the topic of this research was decided upon.[11] We shared our ideas with policymakers through mutual discussions and obtaining their view points and major concerns making decisions about the family physician system. Subsequently, several meetings were held to construct appropriate items of the questionnaire, considering peoples' right in family physician system and their expectations of this program. To increase the influence of this report, we decided to convey the key results in the format of a policy brief to the policy makers via the president of the Shiraz Health Policy Research Center, who was the previous Minister of Health in Iran.[11] Findings of this study revealed that the satisfaction rate of the people toward the urban family physician is <50% and indeed <1 of 6 people are "very satisfied" with this program. By comparison, this is far less than the 58% of the Slovenia people who were highly satisfied with family physician program, but the results obtained in this study were similar to other surveys performed in Iran.[4,12] However, unlike Slovenia (52%), waiting time in our family physician system (13%) was not a major concern for Iranian patients. In both studies, more than 50% claimed that their family physician did not spend enough time to make assess their situation verbally and to examine them. The opportunity to have phone counseling directly with a family physician was 12 times greater in Slovenia (72%) compared to Iran (6%).[12] This study also revealed that the overall satisfaction rate about the urban family physician program (<50%) was much less than satisfaction expressed about the rural family physician system (76%) as proved by a multi-centric study in the central provinces of Iran in 2010.[13] Being informed about the opportunity to choose, their own family physician was much higher in Slovenia (96%) than in our region of Shiraz (66%).[3] This study revealed that the respectful behavior of the family doctor's teams (80%) as also evidenced in another study,[4] continuity of care by family physician (13.9%), cheaper doctor visit fees (compared to the time before the implementation of family physician program) (7.7%), and the acceptable environment of the family physician's office (1.3%) was among people's reasons for their satisfaction regarding this program. These findings showed that the single most important reason for satisfaction among the majority is the personal behavior of family doctors, which is necessary but insufficient on its own for an efficient healthcare system. It was found that younger people, singles, less knowledgeable, people with inappropriate performance in the family physician program's referral system, and populous families accounted for the majority of the dissatisfied groups. However, this study proved that satisfaction level of people did not change significantly with health insurance coverage of referrals, which is in line with another study.[14] In this study, people believed that about half of general practitioners do not have enough competency, experience, or skills to solve their medical problems. This shows that family physicians should be more effectively trained and empowered to do their tasks, as the effect of their competency on their client's satisfaction was proven in another study.[15] Moreover, negative views of the people toward their family physicians may sustain their mistrust and underutilization of this system.[16]

Unavailability of family doctors in most hours of nonholidays and holidays was a major source of concern and confusion for people. This forced them to refer to family physician system doctors outside of normal office hours, and as a result, increased their out-of-pocket expenditures. This finding shows several weaknesses that should be addressed through increasing the availability of family doctors and supervising their working hours. Moreover, increasing informing people about their family physician's substitutes is an essential requirement in this system. The complexity of the referral system, for example receiving referral form and access to specialist family physicians, which causes unnecessary bureaucracy, is a waste of time and leads to less access by ill patients who need to see a specialist, was another main problem that was addressed by people and other studies.[4,7,17,18] These findings show that there are many pitfalls in the performance of the referral system, from general medical doctors to specialist medical doctors that if not be solved may cause people's exiting this program. Prolonged waiting time and high turnover of the pool of family physicians again remind policymakers and managers about the need for better management of this program as also concluded in another survey.[17] A discriminative approach to people by some family physicians (as described in the last paragraph of result part) denotes the need to train continuously and supervise these physicians while revising the related rules. We noticed that people with little knowledge of the program were among the most dissatisfied groups and, therefore, increasing people's knowledge may result in more active participation of people in this program as evidenced by other research.[7] When we planned this study, our main concerns were as follows: how to increase participation rate of people while encouraging them to answer the questionnaires completely and returning the questionnaires to us at the appointed time and how to persuade policy makers to rely on the results of this study. By considering people's and expert's views during the pilot phase for these questionnaires and by following principles of knowledge translation, we should be able to bypass these barriers. This study confirmed the opinion of most of the stakeholders[19] that expansion of the rural family physician program to urban settings of Iran without providing essential preparations may cause major threats to the future of this program.[19,20] Among these, essentials are establishment of a qualified registry system, appropriate analysis, and interpretation

of data and on time reporting of findings about family physician program. Moreover, as noted in another study,[21] applying an integrated model of planning that includes all stakeholders, people, policy makers, and care providers while considering their voices and choices is pivotal for the survival and quality improvement of a family physician system. It should not be overlooked that strengthening of infrastructures and cultural-building about this system are the main needed interventions.

CONCLUSIONS

Expanding the family physician program to other urban areas of Iran should be withheld until removing the main barriers.

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Conflicts of interest

There are no conflicts of interest.

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