
Research Article

Investigating Satisfaction of the People of Ardabil Province with Implementation of Family Physician Program In 2020

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Abstract:

Background: Satisfaction with family physician services is one of the most important indicators of effectiveness and quality of services in health centers and increasing customer satisfaction leads to outcomes such as commitment to health, responsibility and follow-up care in health centers. The aim of this study was to determine the satisfaction of the people of Ardabil province with the family *physician* program.

Methods: This cross-sectional descriptive-analytical research was performed on 637 people covered by the family physician centers in rural and urban areas of Ardabil province in 2020. Stratified sampling was performed, and data were collected using a valid and reliable questionnaire in an interview and were analyzed using SPSS software version 21 and independent t-test and one-way analysis of variance.

Results: Out of 637 participants in this study, 332 (52.1%) were male, 534 (83.8%) were married, and 508 (79.7%) had rural insurance. In general, the satisfaction score of the family physician program was 17.83 ± 2.63 out of 20, and there was a significant difference in the mean score of general satisfaction among the towns ($p = 0.001$). There was also a significant difference in the level of satisfaction with the time spent by the physician, the status of access to the physician, satisfaction with the waiting time to receive services, satisfaction with the cost of receiving services, satisfaction with staff behavior, and satisfaction with midwifery services among the towns ($05/0 < p$).

Conclusion: Despite the fact that people were satisfied with the family physician program, health planners need to pay attention to issues such as public access to the family physician, the quality of services received from physicians and midwives and the waiting time to receive services.

Keywords: Satisfaction, Quality, Family Physician.

Introduction

Reforming the health care system in order to improve the efficiency and effectiveness of the care provided in all countries is considered. However, despite ongoing reforms, many of the world's health systems are still poorly managed, and many countries around the world face many difficulties in making their own decisions in the field of health (2). The structure of health care systems and the way of coherence and coordination between affairs can determine the efficiency and the extent of achievement of goals (3). The leveling of the health care system into the first, second and third levels is the biggest reforms that most countries implement in order to be more efficient and effective, as well as to create justice and access (4). In the leveled health care system, the family physician is active in the first level of health care (5).

Family physicians as the first level of contact between people and patients are influential for management of the factors affecting health (6). Evidence shows that family physicians can provide more effective care for the prevention, treatment and control of certain types of disease by spending fewer resources than specialist physicians (7, 8). In North America and Western Europe, the family physician is the center of health services and the head of the health team (9). In Iran, the family physician program and rural insurance were implemented in order to overcome a number of problems and shortcomings in the health care network system, including inadequate access to health services and poor performance of the referral system. It has been implemented since

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2005 in all rural areas and cities with a population of less than 20,000 people (11, 10). The overall goal is to maintain and improve the health of the community and provide health services within the defined package, to the individual, family, population and community covered, regardless of differences in age, gender, and socioeconomic characteristics and the risk of disease (5, 12).

One of the goals of the family physician program is to satisfy the recipients of health care services and the impact that this issue has on the function, sustainability and durability of the services provided. This is an issue that is significant in terms of the role of clients' perspectives in planning and providing health services according to the approach of "providing high-quality services" (13). Studies show that satisfaction is a multidimensional trait and is influenced by individual and contextual factors (such as cultural, social, economic, and religious status) of individuals (14).

Studies conducted in this regard show that the quality of family physician program services is not the same in different regions and the situation of satisfaction with the program is different so that the study by Motlagh et al. showed high satisfaction of health team members with functioning of family physician in terms of medical health service delivery; however, satisfaction with some of the management functions of family physicians have been at a slightly low level (15). In the study of Nasrollahpour Shirvani (16) and Khosravi (2014), people were generally satisfied with the performance of the family physician program (17), and in another study by Khosravi, 47.9% of client had a very high satisfaction with family physicians and 28.1% of them reported very low satisfaction (17), while in Bagheri study (2014), 48.6% of clients were dissatisfied with the services of family physicians (18). Considering that the decision to develop the program to the whole country requires a comprehensive evaluation and due to the importance of providing, maintaining, and promoting public health as well as possible concerns of officials and policy makers, who seek to implement the urban family physician program throughout the country, also due to the different results in studies conducted in the country and the lack of a similar study in Ardabil province, this study will be conducted with the aim of determining the level of satisfaction of people covered by the family physician program.

Method:

This cross-sectional study was performed on the population covered by the centers implementing family physician programs in rural and urban areas with a population below 20,000 people in 2020. The sample size was obtained using Cochran sampling formula with $P = 0.5$ and 95% confidence level, and $d = 0.04$ for 617 people, of which 750 people were selected taking into account the sample loss. Multistage sampling was used, so that all centers implementing the family physician project were included in the study, and in each center, according to the population covered, the number of samples was allocated as a quota. In the second step, samples were selected from each of the centers by simple random sampling method. Inclusion criteria included willingness to participate in the study and receiving services from the health center.

The data collection tool consisted of a three-part questionnaire. In the first part, the center's information, in the second part, the client's demographic information (age, gender, insurance coverage, marital status, education status) and in the third part, 19 satisfaction questions were included in the form of Likert scale (6 items in four-point Likert scale and 13 items in six-point Likert scale). The face validity of the questionnaire was examined and approved using the opinion of experts in the fields of medicine, health and health services management. The content validity of the questionnaires was analyzed and confirmed using CVI and CVR indices and the opinions of 7 experts. The reliability of the instrument was evaluated using Cronbach's alpha coefficient, which was higher than 0.8 in all instruments.

After explaining the objectives to the research samples, informed oral consent was obtained. Data were analyzed in SPSS statistical software version 18 using independent t-test, one-way analysis of variance with a significance level of less than 5%.

Results:

A total of 637 people participated in this study, of which 332 (52.1%) were males, 534 (83.8%) were married, 508 (79.7%) had rural insurance and 233 (36.6%) had a high school diploma.

The results showed that 343 ones (54.4%) were very satisfied with the behavior of the family physician. There was a significant difference between the towns of the province in terms of people's satisfaction with the behavior of family physicians. In Garmi town, 62.5% of clients were very satisfied (highest), and in Nayer town, 42% of clients were very satisfied (lowest) (Table 1).

There was no significant difference between the towns of the province in the variables of the speed of the physician's attention to the patient's situation, observance of dignity and respect of clients, the status of family physician communication with clients, and the status of patient information confidentiality by the family physician ($p < 0.05$). In terms of physical space, the majority of people in Nayer town believed that the physical space of the service provider unit is average, but in other towns, most people evaluated the space situation well and there was a significant difference between the towns ($p = 0.006$). In terms of facilities and equipment of the provider unit, the majority of people evaluated the situation well, but in Nayer, the situation of facilities was evaluated as average, and there was a significant difference in this variable between the towns ($p = 0.001$) (Table 2).

Although in all towns, the majority of clients were satisfied and very satisfied with the behavior of staff, there was a significant difference in this variable between the towns. In Garmi, 74% of clients were very satisfied with the staff behavior (highest), and in Kowsar, 45% of clients were very satisfied (lowest).

There was a significant difference in the level of satisfaction with the time spent by the family physician to provide services between the towns ($P = 0.023$). In Garmi, 66% of clients were very satisfied (highest) with the time spent, and in Kowsar, 27% of

clients were very satisfied (lowest).

There was also a significant difference in the level of satisfaction with the waiting time to receive services between the towns, but the majority of people reported they were satisfied and very satisfied ($P = 0.027$). In Garmi, 61% of the clients were very satisfied with the waiting time to receive services (highest), and in Nayer, 31% of the clients were very satisfied (lowest).

There was a significant difference in the state of satisfaction with the cost of receiving services in the towns, but the majority of people were satisfied and very satisfied ($P = 0.017$). In Garmi, 66% of the clients were very satisfied (highest) with the behavior of the staff, and in Kosar, 27% of the clients were very satisfied (lowest).

In all towns, the majority of people were satisfied with the result of medical services, and were satisfied and very satisfied with the injection and dressing services, and there was no significant difference in this variable between the towns.

In Garmi, 64% of clients were very satisfied with the result of midwifery services (highest), and in Kowsar, 30% of clients were very satisfied (lowest), and there was a significant difference in people's satisfaction with the result of midwifery services between the towns ($p = 0.007$).

The majority of people were satisfied and very satisfied with the access to the physician. In Garmi, 64% of the clients were very satisfied (highest), and in Nayer, 31% were very satisfied (lowest), and in this variable there was a significant difference between the towns ($p = 0.021$) (Table 3).

In general, the satisfaction score of the family physician program was 17.83 ± 2.63 out of 20 and there was a significant difference in the mean score of general satisfaction between the towns. The highest score was obtained in Garmi town, and the lowest score was obtained in Kowsar town ($p=0.001$) (Table 4).

Discussion:

The aim of this study was to determine the satisfaction of the people of Ardabil province with the national program of rural and urban family physician. The results showed that the majority of participants in the present study had a good level of satisfaction with the quality of family physician implementation. The total satisfaction score of the participants (637 people) with the family physician program in this study was reported to be 17.83 ± 2.63 .

In general, patient satisfaction with family physician services is one of the most important indicators of the effectiveness and quality of services provided by different departments of health centers (19). It is evident that the organizations that lack a sufficient knowledge of the extent of meeting their customers' expectations fail to meet the changing needs of their growing customers and eventually stagnate and fail (20). Various studies have been conducted on patients' satisfaction with hospital and medical services. In these studies, factors such as age, gender, education and socio-economic status of the patient, waiting time to receive services, skills of specialized hospital staff, services provided by physicians and nurses, providing instructions at the time of patient discharge, respect for patients' opinions, etc. have been identified to affect the level of patient satisfaction (21).

In this study, the mean age of participants was 42.35 ± 20.11 years, and 52.1% of them were males. There was not a significant difference between the demographic variables of age groups, gender, occupation, insurance and family size with satisfaction level. However, married people reported more satisfaction than single people, which was statistically significant, and this finding was consistent with the results of Campbell and Hall (22, 23), while it was different from the results of Ghorbani and Jafari (24, 25).

The results obtained from the study of Raisi et al. showed that there was no statistically significant relationship between gender and marital status of the research samples and their satisfaction with the family physician program (26). Studies showed that women referred more than men to receive medical services (27). Moreover, referral of women to health centers to receive services (excluding prenatal care, childbirth, breastfeeding and family planning) is twice as many as men (28). However, despite the obvious difference in gender composition of service recipients, no significant difference was observed between their level of satisfaction. In the study of Hajiyan and Azami, there was no difference between the level of satisfaction with health services in men and women (28). However, the study conducted by Nanbakhsh and Pour-Ali reported that men were less satisfied with receiving services from the health house than women. The researchers cited the reason for this finding as the possibility that men have low knowledge of the duties of the health house (27).

There was no statistically significant relationship between education level and respondents' satisfaction with family physician program, but people with lower education were more satisfied. In one study, researchers reported a statistically significant relationship between education level and satisfaction of service recipients, which is consistent with the results of our study (29). The above findings may indicate that people with higher levels of education, due to greater awareness of their rights and also the possibility of greater socioeconomic welfare, have higher expectations from health centers, which should be considered by the health care providers.

There was no statistically significant difference between the respondents' jobs and the level of satisfaction with the family physician. In the Azami's study, there was a difference between jobs, but this difference was not significant (30). However, in a study with a significant relationship between job and satisfaction level, it was reported that workers had higher satisfaction (76.5%) than self-employed people (53%) (31). Probably the low expectation of people with labor jobs from the services provided by the health care system is the reason for their high level of satisfaction.

In the present study, the answers of the participants to the satisfaction measurement questions showed that the average score of satisfaction with the implementation of the family physician program was higher than the average score; So that the total

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satisfaction score was 89.15%, which in Khadivi's study was 70.3%, and it was 97.4% in the study of Gohrbani 97.4% (32, 25). Besides, in a separate study by Gadallagh and the Polluste report, the results of the study showed that the overall score of satisfaction with family physician services in both studies was about 90% (33, 34). In a study in Slovenia, Kersnik et al. found that 58.2% reported excellent satisfaction with their medical services and care (35). Another study reported that 97% of patients and 89% of people who received medical care and might not be sick expressed very high satisfaction with the services and medical care in the family physician centers (36).

In the present study, the dimension of physician care and respect (84.7%) and trust and belief in his performance (confidentiality, therapeutic communication with patients) constituted the most cases of satisfaction (89.6%). Many researchers have linked satisfaction with staff attitudes, timely diagnosis by the physician, and physician information (37). Polite and appropriate behavior not only causes attraction of patients at each stage of treatment and follow-up, but also meeting the individual needs of clients will create the necessary motivation to recommend to other patients, relatives and acquaintances (38).

Khadivi et al. also reported the highest mean satisfaction score for the appropriate relationship between physicians and medical staff with patients and physicians' confidentiality (32) that this level of satisfaction can be due to holding training courses for physicians and medical staff before the initiation of family physician program. In a study conducted in Slovenia (2000), the satisfaction of clients with the confidentiality of physicians was 77%, satisfaction with the explanation of the disease was 63.3%, and satisfaction with listening to their statements was 69.4% (35).

Ribeiro et al. (2010) reported that 72.4% of people covered by family physician program were satisfied with physicians' answers to questions and their relationship with patients (39). Jaturapatporn stated in a satisfaction survey that the communication skills of the family physician with the patient had the highest score (40), while in a study conducted by Ghorbani and Raisi (2012) in Sabzevar, it was reported that the lowest score of residents' satisfaction was assigned to the dimension of trust and belief in physician performance (25, 26), which can be attributed to the low retention rate of family physicians and the use of young and inexperienced physicians in providing medical services to people covered by the family physician program in Sabzevar.

Satisfaction with the performance of other members of the health team had the highest satisfaction score and 50.2% of people expressed high satisfaction. Taheri et al. (2011) reported satisfaction with the performance of family physician as 34.52%, midwife of the family physician team as 37.1%, laboratory staff as 36.8%, and pharmacy staff as 38.3% (41). One of the most important strengths of the referral system and family physician program is to provide people with easy access to medical services (42). In our study, 54% of people expressed their satisfaction with the waiting time and process of receiving services. The results of the study of Khadivi et al. (2012) were similar to the results of our study. They reported that easy access to public health services is one of the most important strengths of the referral system and family physician program (32). Ghorbani et al. also reported satisfactory satisfaction level of patients with waiting time (25), which is consistent with the results of our study. However, in the study of Kurata et al., 92% of patients were satisfied with their waiting time (36). In the present work, people's satisfaction in terms of temporal and local access to family physicians was almost equal to their satisfaction with waiting time and the process of receiving services, so that 53% of people expressed satisfaction in this area. Satisfaction rate in this dimension has been reported as 37.6% in the study by Najimi (43), and 77.2% in the study by Ribera et al. (39). Seyedi et al. mentioned the easy access to the services as the most important factor of satisfaction in people referring to health centers (44). Ghorbani et al. also stated that there is a statistically significant relationship between residence place and temporal and local access to family physician with the level of satisfaction with the program (25). In addition, in the study of Jafari et al., the level of satisfaction with temporal and local access to family physician was much more, which was consistent with the results of our study (24).

In terms of costs, 54.1% of people reported high satisfaction. There was a statistically significant difference between the towns of Ardabil province, which is not consistent with the results of the study by Khadivi et al. While Jafari et al. expressed the highest level of satisfaction of the subjects with the amount of expenses paid (24). Najimi et al. also reported that people were satisfied with the services of the family physician program in terms of costs (65.1%) (43). Ghorbani and Raisi reported the highest level of satisfaction in people referring to family physician centers as related to the costs dimension (26, 26), which was consistent with the results of the present study. This level of satisfaction in terms of costs in our study was such that patients had to pay 10% of the cost of a doctor's visit and 30% of the cost of medication and tests. In a study on people in rural areas of Isfahan, they reported the dimension of the costs as unfavorable, and Khadivi et al. mentioned the reason as the lower economic status of the villagers (32).

In a study on the satisfaction with family physician in Fasa town, Mobasheri et al. showed that only 1.7% of people had little satisfaction with the overall program. However, in all dimensions, the majority expressed the desired satisfaction level. Nevertheless, the dimension of care, respect and belief in physician performance had the highest and the dimension of emergency services and hospitalization had the lowest level of satisfaction. The results of this study are consistent with the results of our study in terms of care, respect and belief in physician performance and costs (45).

Research Limitations

This study was performed cross-sectionally and it is suggested that the satisfaction of clients referring to comprehensive health service centers be evaluated immediately after receiving the services so that the study of satisfaction of the family physician program is not affected by the passage of time.

Conclusion

The level of people's satisfaction with the family physician program was in good condition, but there were significant differences between the towns of the province and status of satisfaction level in some items of program implementation quality monitoring, such as speed, cost of services, staff behavior, and midwifery services, was not satisfactory. Therefore, it is necessary for health planners to pay attention to issues such as people's access to family physicians, the quality of services received from physicians and midwives, and the waiting time for receiving services.

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Contributions

GA, AN, AK and HL contributed to the conception and design of the study; helped to analyze, and interpret the data; drafted the manuscript; and revised the manuscript for important intellectual content. ML and HL data gathering. All the authors read, approved the manuscript, and consented to publish.

Ethics declarations

Ethics approval and consent to participate

This study approved by Mazandaran University of Medical Sciences Ethical Committee with the code IR.MAZUMS.REC.1399.350.

Consent for publication

Not applicable

Competing interests

The authors declare that they have no competing interests.

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References:

Table 1. Demographic characteristics of the research participants

Variable		Frequency	Percent
Gender	Male	332	52.1
	Female	305	47.9
Education level	Illiterate	50	7.8
	Elementary school	116	18.2
	Secondary school	137	21.5
	High school	233	36.6
	BA	91	14.3
	Above BA	10	1.6
Marital status	Married	534	83.8
	Divorced/widow	21	3.3
	Single	82	12.9
Insurance type	Rural	508	79.7
	Medical	33	5.2
	Social welfare	88	13.8
	Other	8	1.3

Table 2. Comparison of status of people's satisfaction with family physician behavior in terms of towns

Town	Very satisfied	Satisfied	Normal	Dissatisfied	Very dissatisfied	Total	p-value
Ardebil	61(57)	35(32.7)	0	1(9)	1(9)	107(100)	
Bile Savar	2.50(60)	28(33.7)	1(1.2)	2(2.4)	2(2.4)	83(100)	
Pars Abad	61(58.7)	23(22.1)	3(2.9)	3(2.9)	3(2.9)	104(100)	
Sareyn	13(59.1)	6(27.3)	0	0	1(4.5)	22(100)	
Kowsar	17(51.5)	15(45.5)	0	0	0	33(100)	0.049
Garmi (Moghan)	45(62.5)	21(29.2)	0	0	1(1.4)	72(100)	
Meshkin Shahr	53(43.8)	55(45.5)	0	0	1(8)	121(100)	
Nayer	8(42.1)	8(42.1)	1(5.3)	1(5.3)	0	19(100)	
Namin	35(50.7)	27(39.1)	0	0	0	96(100)	
Total	343(54.4)	218(34.6)	5(8)	5(8)	9(1.4)	630(100)	

Table 3. Status of people's satisfaction with quality dimensions of family physician program implementation in terms of town in the view of clients

Satisfaction dimensions	Bad	Average	Good	Total	p-value
speed of dealing with to the patient's problem by physician	7(1.1)	133(21)	494(77.9)	634(100)	0.235
Respecting the patient's dignity	6(9)	89(14)	540(85)	635(100)	0.240
Status of facilities and equipment of the service provider unit	33(5.2)	189(29.7)	414(65.1)	636(100)	0.001
Communication of the family physician & the patient	10(1.6)	87(13.7)	538(84.7)	635(100)	0.665
information confidentiality	4(6)	62(9.7)	570(89.6)	636(100)	0.154
Physical space of the service provider unit	27(4.2)	121(20.1)	481(75.6)	636(100)	0.006

Table 4. Status of satisfaction with service delivery in the view of clients

Dimension	Very dissatisfied	Dissatisfied	Normal	Satisfied	Very satisfied	Total	p-value
Satisfaction with the behavior of the center staff	4(6)	2(3)	32(5)	197(31.1)	399(62.9)	634(100)	0.018
Satisfaction with the time spent by the physician	7(1.1)	10(1.6)	54(8.5)	221(34.8)	343(54)	635(100)	0.023
Satisfaction with waiting time to receive services	5(8)	12(1.9)	64(10.1)	241(38)	313(49.3)	635(100)	0.027
Satisfaction with the cost of receiving services	0	7(1.1)	61(9.6)	223(35.2)	343(54.1)	634(100)	0.017
Patient satisfaction with the outcome of medical services	2(3)	11(1.7)	62(9.7)	239(37.5)	323(50.7)	637(100)	0.277
Patient satisfaction with the result of midwifery services	5(8)	9(1.4)	46(7.2)	214(33.7)	303(47.7)	58(9.1)	0.007
Patient satisfaction with the result of injection & dressing services	5(8)	13(2)	78(12.3)	219(34.7)	317(50.2)	627(100)	0.082
Patient satisfaction with the services provided in the health center	3(5)	6(1)	55(8.8)	210(33.5)	353(56.3)	636(100)	0.146
Patient satisfaction with access to a physician	3(5)	10(1.6)	79(12.4)	207(32.5)	337(53)	634(100)	0.021

Table 5. Average score of satisfaction with the implementation of family physician program in terms of towns in the view of clients

Town name	Number	Average	SD	Min.	Max.	p-value
Ardebil	109	18.27	2.20	10	20	0.001
Bile Savar	83	17.66	3.36	1	20	
Pars Abad	105	18.13	2.55	7	20	
Sareyn	24	17.79	2.11	14	20	
Kowsar	33	15.88	2.65	10	20	
Garmi (Moghan)	72	18.34	2.20	10	20	
Meshkin Shahr	122	17.95	2.58	12	20	
Nayer	19	16.58	2.39	10	20	
Namin	70	17.41	3.47	1	20	
Total	637	17.83	2.63	1	20	