Original Article

Factors affecting the relationship between physician and patient in Ahvaz Community Health Centers

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Abstract

Background and purpose: The patient-physician relationship is a cornerstone of a good primary healthcare. This study was aimed to study the factors affecting the relationship between physician and patient in Ahvaz community health centers.

Materials and Methods: In this cross-sectional study, two-hundred participants were randomly selected from 14 community health centers in Ahwaz, 2016. Data were collected using a valid Patient-Doctor relationship questionnaire (PDRQ-9). A total score of 9-45 was considered to assess communication skill of doctors. Data were analyzed using SPSS.20 Software.

***Results*:** The results showed that the total mean and median score of physician-patient relationship was slightly higher than moderate (mean=28.58 and median=26 out of 45). The highest score (3.36 out of 5) was related to the item "I can talk to my doctor". The lowest score (2.95 out of 5) was related to the item "My doctor is dedicated to help me." Linear regression analysis shows that the waiting time for receiving services had a negative impact on the patient-doctor relationship. By increasing the waiting time for receiving services, patients' satisfaction from communication with their physicians is decreased (B = -0.112; P = 0.041).

***Conclusion*:** The researchers concluded that the relationship between physician and patient in the studied health centers was moderate. It is necessary to develop managerial techniques to reduce waiting time of patients in order to improve the relationship between physicians and patients.

***Keywords*:** Patient-Physician Relationship; Health Centers; Primary Care

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1. Introduction

Medical is tied to the art of communication (1). The communication is a purposeful process to transfer a message from a person to other (2). The relationship is the process of creating common understanding (3). The human relationship is one of the basic and fundamental clinical skills for physicians (4). The doctor-patient relationship is a key element to patient-centered medical care. A good physician-patient relationship increases adherence to medical recommendations, enhances continuing care, and promotes patient satisfaction (5-7). An effective doctor–patient relationship increases patients' trust and willingness to communicate (8). Most medical diagnoses and treatment decisions are based on the information received from the patients through effective communication (2). The relationship between the physician and the patient is an essential component of medical care (9). The relationship between the physician and the patient is not only a factor in the transmission of the message between two human beings, but it is fundamentally important because it is related to one of the most important human issues, that is, his health (10). Moini et al. (2009) showed that many complaints do not relate to the doctor's scientific skills and efficacy, but rather to how to communicate with the patient. In other words, the final reason for many complaints and medical offenses is communication errors (2). The importance of the existence of an appropriate therapeutic relationship between the physician and the patient can never be ignored. Correct communication with the patient requires understanding that the patient is not just a collection of symptoms and injured organs, but the physician should see the patient with his or her own particular concerns and wishes who sought help and improvement with confidence and trust to him (11). The quality of physician-patient communication can lead to a reduction in patient non-satisfaction, patient compliance and complaints from physicians, and increase a positive assessment of physician's function. If the inconsistency between physicians and patients and their ideas and thoughts about disease is not recognized, the results could be misunderstanding (12). The aim of this study was to investigate the factors affecting the relationship between physician and patient in community health centers.

2. Materials and Methods

This cross-sectional study was performed in Ahvaz city, in 2016. Research population consisted of all patients who referred to physicians of community health centers. 200 samples were randomly selected from 14 community health centers (each center was a cluster). Considering that the 14 studied health centers were similar in terms of the number of daily referred patients and the volumes of activity, samples were equally selected from each center (approximately 14 patients from each center) were randomly selected within a week. Data were collected using patient-doctor relationship questionnaire (PDRQ-9) that was developed and validated in 2004 (13). This short questionnaire contains 9 questions. To measure the scores, the five-point Likert scale (poor, moderate, good, very good, and excellent) was used. A total score of 9-45 was considered to assess communication skill of doctors (9-18 for weak communication skill, 19-28 for moderate, 29-38 for good, and >38 for excellent communication skill).

To analyze the data, non-parametric statistical tests, such as Mann-Whitney, and Kruskal-Wallis were used. To assess factors affecting the relationship between physician and patient, regression analysis models were also developed. The collected data were then analyzed using SPSS.20 Software. The significance level was considered 0.05. The study was approved by the ethics committee (Code: IR.AJUMS.AC.IR.REC.1396.170).

3. *Results*

The mean age of participants was 32.85 yr. The average waiting time to receive services was 11.1±10.8 minutes, and the average visit time was 5.9±3.9 minutes per patients. The number of physicians per health center was 1.93. Also, the number of visits was 2.36±1.7 time and the average monthly referrals of those who visited the doctor were 709.9 patients. Most of the patients were women and married. 87 percent of them were also native to Khuzestan Province. The results showed that non-native patients had better relationship with doctor than other patients (p=0.041). Most of the patients (54%) were covered by social security insurance found. Most patients paid visits to doctors to receive pregnancy services and obtain interpretation of diagnostic tests, respectively (Table 1, 2).

Table 1. Demographic characteristics of patients referring to Community health centers (N=200)

Variables		Frequency	Percentage	Sig.
Age (yr)	<30	97	48.5	0.326
	31-40	72	36	
	40<	31	15.5	
Gender	Female	183	91.5	0.14
	Male	17	8.5	
Marital status	Married	184	92	0.072
	Single	16	8	
Ethnicity	Arab	96	48	0.648
	Fars	54	27	
	Lor	43	21.5	
	Others	7	3.5	
Being native	Native	174	87	0.041
	Non-native	26	13	
Medical insurance found	Social Security	108	54	0.852
	medical Service	33	16.5	
	Armed forces	15	7.5	
	Other	44	22	
Reason of doctor visit	Pregnancy services	51	25.5	0.775
	Interpretation of diagnostic tests	46	23	
	General visit	103	51.5	

Table 2. Descriptive variables of studied community health centers (N=14 centers)

Variables	Mean± SD	Median	Min	Max
Waiting time (per patient)	11.1±10.8	10	1	60
Duration of physician visit (min per patient)	5.9±3.9	5	1	30
Distance from home to health center (min)	15.9±48.9	10	1	600
Number of doctors of centers	1.9±1.2	2	1	6
Mean of visit per patient	2.36±1.7	2	1	10
Mean of patients visited in centers (monthly)	709.9±453.2	700	300	2500

The average score of physician-patient relationship in view of patients was slightly higher than moderate (28.58 out of 45). The highest score (3.36) was related to the item "I can talk to my doctor". The lowest score (2.95) was related to the item "My doctor is dedicated to help me." (Table 3).

Table 3.The Mean and median scores of items of physician-patient relationship (N=200)

Items	Mean± SD	Median
My doctor will help me	3.17±1.03	3
My doctor will give me enough time	3.15±1.06	3
I trust my doctor	3.22±1.04	3
My doctor understands me	3.18±1.02	3
My doctor is dedicated to helping me	2.9±1.05	3
I and my doctor agree on the nature of clinical symptoms	3.12±1.02	3
I can talk to my doctor	3.36±1.07	3
I feel satisfied with my treatment by my doctor	3.23±0.97	3
I realized that my doctor is easily available	3.18±1.01	3
Total mean score	28.5±7.91	26

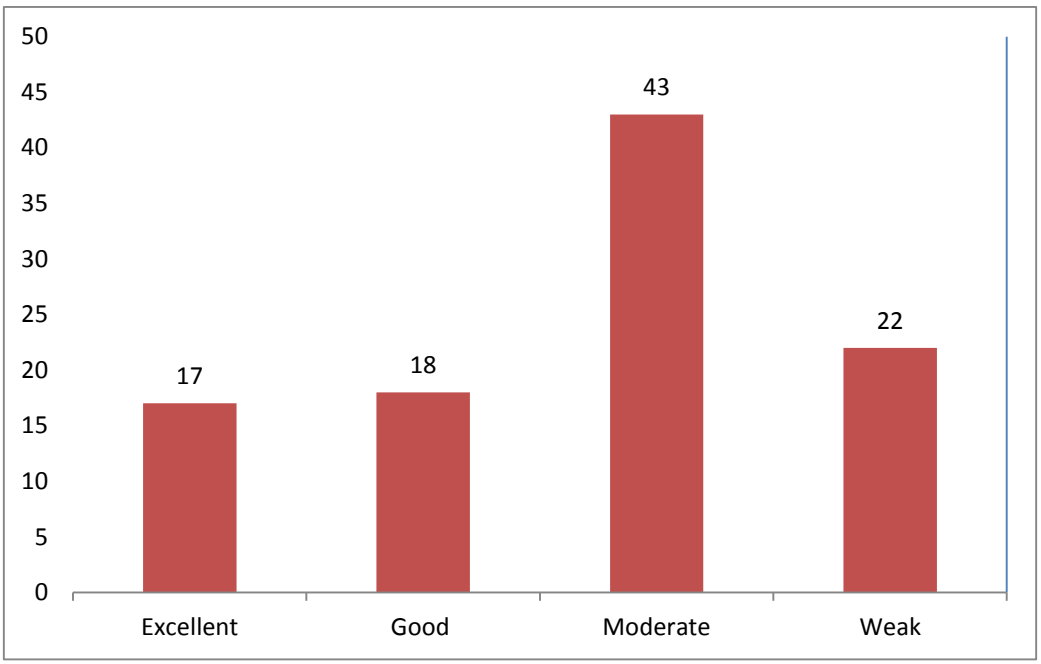

Diagram1. Level of patient-doctor relationship in view of patients

According to diagram 1.35 % of the patients considered the communication to be good or excellent, and 65% of the patients assessed their communication with doctor moderate and weak. Linear multiple regression analysis shows that the waiting time for receiving services had a negative impact on the patient-doctor relationship. By increasing the waiting time for receiving services, patients' satisfaction from communication with their physicians decreased (B=-0.112; P = 0.041)(Table 4).

Table 4. Factors affecting the relationship between physician and patient

	B	**Std. Error**			
Constant	28.05	1.046	26.83	2.67	**0.001**
The waiting time to receive services **(min)**	-0.112	0.054	-0.145	-2.055	**0.041**

4. *Discussions*

The results of the current study showed that most patients evaluated their relationship with physician as moderate. Studies indicate that several factors affect the relationship between physician and patient (14-16). In the present study, there was a significant and inverse relationship between the waiting time to doctor's visit and the level of communication between the physician and the patient. By increasing the waiting time for receiving services, the patients' satisfaction from communication with their physicians showed a decrease. Waiting time to visit is a key indicator to assess quality of services (17). The long waiting time for a doctor's visit affects the quality of care, reduces patient satisfaction,

and increases the number of patients who leave the site before the doctor's visit. A study indicate that prolonging the waiting time increases patient complaints, dissatisfaction, crowding, and endangering patients' lives (18). According to a study conducted by Nasiripour et al., a large number of patients simultaneously, lack of timely physicians, and a shortage of physicians is three key factors for prolonging the waiting time of patients (19). Anderson et al. showed that longer waiting times for doctor's visit were significantly associated with lower patient satisfaction (20). According to Azizam et al., short waiting time for visiting a doctor led to improving satisfaction (21). Kong et al. showed that age of patients was strongly associated with satisfaction, and non-elderly patients with shorter waiting time experienced more satisfaction than elder patients (22). Also, the results of another study showed that the number of visits per patient had a positive impact on improving the relationship between patient and physician, so that patients who had more regular and more visits to the center expressed more satisfaction with how to communicate with their physician. The patients who kept their visits regular were satisfied. The quality of doctor-patient relationship in primary health care visits was then related to patient satisfaction. It is necessary to improve doctors' communication skills to satisfy the patients with the provided services and complete the treatment. Hence, improving doctors' communication skills creates a great potential for the quality of medical services (23). Also, many other factors including age, ethnicity, and gender of patients, expectations, and technical skills of doctors have impact on the patient-doctor relationship (14). At the same time, the time duration of the doctor's visit is a key indicator for visit quality. The average duration of visits varies greatly among countries. Hasanpour et al. showed that the duration of the general doctor's visit in Iran was 4.67 minutes, which was lower than some other developed and developing countries (24). Omer reported that the average duration of doctor's visit in Iraq was 6.2 minutes (25). A study in the United States showed that the average visit time was from 17.9 minutes to 20.3 minutes for primary care visits, and from 19.0 minutes to 21.0 minutes for specialized visits (26). Shorter doctor's visit time can lead to reduced patient safety (27, 28). Therefore, technical and managerial measures for reducing the waiting time and increasing the quality of doctor's visit in primary health centers can help to improve the communication performance of the physician and the quality of healthcare.

5. *Conclusion*

The results showed that the status of physician and patient relationship in community health centers was slightly more than moderate. In order to improve the relationship between physicians and patients, it is necessary to develop managerial techniques to reduce waiting time of patients and empower physicians to improve communication skills. Also, developing the regular visit plan can help to improve patient-doctor communication.

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***Conflict of Interest*:** none declared.

Authorship

Torabipour A and Bdieenasab P contribute to the design of the work, analysis, or interpretation of data for the work; and Torabipour A and Dolatshah M contribute draft the work or revising it critically for important intellectual content; and Torabipour A performed final approval of the version to be published.

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