

Analysis on Satisfaction and Influencing Factors of Traditional Chinese Medicine Medical Service Among Residents in Tianjin

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Abstract. Objective This paper analyzes Tianjin residents' satisfaction with TCM medical services and its influencing factors, in order to provide reference for giving full play to social and economic benefits of TCM. Methods Using both stratified and random sampling method, Six hospitals from Heping, Jinghai and Beichen were selected, and 260 residents conducted questionnaires. Result Residents' satisfaction rate of TCM medical service was 22.2 %. TCM knowledge propaganda and TCM price satisfaction score were the highest (3.5), and TCM curative effect score was the lowest (2.3). Logistic regression showed that gender, TCM knowledge propaganda, medical equipment, medical distance, medical convenience and reimbursement ratio had significant effects on residents' satisfaction ($P < 0.05$). Conclusion Tianjin residents have low satisfaction with TCM medical services, so it is suggested to accelerate the innovation of TCM technology, improve the effect of TCM treatment, rationally allocate TCM medical resources, and improve the satisfaction of residents.

Keywords: Traditional Chinese medicine, Medical service, Satisfaction, Influencing factors, Tianjin.

1. Introduction

The Outline of the Strategic Plan for TCM Development (2016-2030) calls for "of TCM services by 2020". The TCM service capacity is no single in the current scale and quantity, but also reflected in the quality of services and the satisfaction of residents. This paper analyzes the residents' utilization, satisfaction status and influencing factors of TCM services, and aims to make suggestions for the development of TCM medical services in Tianjin.

2. Study subjects and methods

2.1 Study subjects

The study subject of this paper is mainly patients and accompanying persons from 6 hospitals in Heping District, Jinghai District and Beichen District of Tianjin.

2.2 Study methods

The stratified sampling method was used to randomly survey 40-60 residents in 6 hospitals in Heping, Jinghai and Beichen, with a total of 300 questionnaires with a recovery rate of 93.3%.

Statistical Methods: Using the Likert Scale table and domestic and foreign studies [2,3] measure the resident satisfaction score, descriptive analysis and Logistic regression analysis were analyzed by the SPSS26.0 statistical software.

3. Results

3.1 Basic situation analysis of the study subjects

Among the 260 study subjects, 64.2% were male and 35.8% were female, there were 113 urban households and 147 rural households. The educational level was concentrated in the university undergraduate / junior college, with a total of 186 cases, accounting for 71.5%. The majority of retirees (56.9%), the highest proportion of 66-75, 65.4%, and the lowest proportion of 76 is 2.7%. The family monthly household income is mainly less than 6000 yuan, of which 2001-4000-yuan accounts

for 27.7%, and 4001-6000-yuan accounts for 21.2%. The insured types are mainly covered by social medical insurance, see Table 1.

Table 1. Basic situation analysis of the study subjects

Item	Category	Frequency	Percentage(%)
Gender	Male	167	64.2
	Female	93	35.8
Age	Under 35 years old	10	3.9
	36-45 years old	25	9.6
	46-55 years old	24	9.2
	56-65 years old	24	9.2
	66-75 years old	170	65.4
	Over 76 years old	7	2.7
Household registration type	Urban	113	43.5
	Rural	147	56.5
Degree of education	Lower than primary school	17	6.5
	Junior middle school	26	10
	Senior middle school	19	7.3
	College undergraduate / specialty program	186	71.6
Occupation	Master's degree or above	12	4.6
	Public servant	13	5
	Public institution staff members	19	7.3
	Enterprise worker	19	7.3
	privately or individually-owned business	13	5
	Retired people	148	56.9
	Other practitioners	9	3.5
	Free practitioners	39	15
Family monthly income	Less than 2,000 yuan	59	22.7
	2001-4000 yuan	72	27.7
	4001-6000 yuan	55	21.2
	6001-8000yuan	36	13.8
	Over 8001 yuan	38	14.6
Type of insurance	Medical insurance for urban workers	73	28.1
	Medical insurance for both Urban and rural residents	121	46.6
	Socialized medicine	18	6.9
	Commercial insurance	30	11.5
	Not insured	18	6.9

3.2 Analysis of the study subjects' satisfaction with TCM medical services

The satisfaction of residents in Tianjin was analyzed from 11 indicators such as TCM knowledge propaganda, medical insurance reimbursement ratio and medical facilities. Studies have shown that the top three satisfaction scores are Chinese medicine knowledge publicity, Chinese medicine price (3.5), medical insurance reimbursement (3.4) and medical distance (3.3), which indicates that Tianjin has implemented Chinese medicine knowledge publicity in place and the pricing of Chinese medicine service is reasonable. However, the residents' satisfaction with the curative effect of traditional Chinese medicine is 2.3, and the satisfaction rate is only 3.8 %. Due to the small side effects and slow effect of traditional Chinese medicine, the residents' satisfaction is low, as shown in table 2.

Table 2. Analysis of the study subjects' satisfaction with TCM medical services [n (%)]

Item	Very satisfaction	Satisfaction	Generally	Dissatisfaction	Very dissatisfaction	Score	Satisfaction rate(%)
Knowledge propaganda	53(20.4)	61(23.5)	107(41.1)	39(15)	0(0)	3.5	43.8
Medical insurance reimbursement ratio	43(16.5)	46(17.7)	134(51.5)	35(13.5)	2(0.8)	3.4	34.2
Medical equipment	26(10)	59(22.7)	94(36.2)	64(24.6)	17(6.5)	3.1	32.7
Medical environment	5(1.9)	20(7.7)	115(44.2)	81(31.2)	39(15)	2.5	9.6
Diagnosis and treatment technology	15(5.8)	16(6.2)	95(36.5)	97(37.3)	37(14.2)	2.5	11.9
Doctor-patient communication	7(2.7)	18(6.9)	91(35)	92(35.4)	52(20)	2.4	9.6
Efficacy of traditional Chinese medicine	4(1.5)	6(2.3)	105(40.4)	92(35.4)	53(20.4)	2.3	3.8
The price of traditional Chinese medicine	54(20.8)	67(25.8)	90(34.6)	49(18.8)	0(0)	3.5	46.5
Medical distance	17(6.5)	29(11.2)	113(43.5)	68(26.1)	33(12.7)	3.3	17.7
Stand-by time	13(5)	33(12.7)	121(46.5)	64(24.6)	29(11.2)	2.8	17.7
Medical convenience	8(3.1)	34(13.1)	105(40.4)	80(30.7)	33(12.7)	2.6	16.2

3.3 Analysis of the influencing factors on the satisfaction of TCM medical service

3.3.1 Assignment code

In this paper, the five classification variables of satisfaction survey were recoded to binary variables, that is, very satisfaction, satisfaction recoded to satisfaction, assigned 1; very dissatisfaction, dissatisfaction and generally recoded to dissatisfaction, assigned 0.

3.3.2 Analysis of influencing factors

Logistic regression analysis was conducted with overall satisfaction as dependent variable and residents' basic situation and satisfaction evaluation index as independent variables. The data shows that gender, TCM knowledge propaganda, medical equipment, medical distance, medical convenience and medical insurance reimbursement have significant effects on residents' satisfaction. Research shows that men's satisfaction with TCM medical services is higher, and active publicity of TCM knowledge will improve residents' satisfaction. The highest OR for medical distance was 5.25, indicating that the closer the medical distance is, the 5.25-fold increase in the likelihood of an increase in residents' satisfaction, as shown in table 3.

Table 3. Binary Logistic regression analysis of the subjects' satisfaction

Item	B	SE	Waldx ²	P	OR
Gender	-2.11	0.93	5.13	0.02	0.12
Knowledge propaganda	-1.25	0.38	11.00	0.01	0.29
Medical equipment	0.57	0.26	4.81	0.03	1.78
Medical distance	1.66	0.65	6.60	0.01	5.25
Medical convenience	-1.60	0.65	6.15	0.01	0.20
Medical insurance reimbursement ratio	0.78	0.37	4.52	0.03	2.18

4. Discussions and Suggestion

4.1 Comprehensive improvement of medical services of traditional Chinese medicine and improvement of residents' satisfaction

In this paper, only two items were scored in the 3.5-4.4 points, while scoring the 2.9 points accounted for the six items. The proportion of residents expressing "satisfaction" with TCM medical services was 22.2%, the "dissatisfaction" was 14.7% higher. Therefore, it is suggested that the corresponding medical insurance policy of traditional Chinese medicine should be matched to help residents reduce the burden of "difficult and expensive medical treatment" and let traditional Chinese medicine escort the health of the people. It is also necessary to build a residents' feedback platform, actively evaluate medical services, achieve a virtuous cycle of "service construction-problem finding-problem solving", enhance the service ability of traditional Chinese medicine, and improve residents' reputation and satisfaction with traditional Chinese medicine services.

4.2 Concentrate human, financial and material resources on in-depth research and development to improve the efficacy of TCM

Among the 11 satisfaction indicators of medical service institutions, the score (2.3) and percentage (3.8%) were the lowest, which affected resident's satisfaction with TCM medical services. Health problem is related to the people's livelihood issues, the Singapore of traditional Chinese medicine medical system fine management experience, and concentrate human, financial and material resources to "overall dialectical, enlarge, five elements of eight outline" original classic theory innovation research, combined with the needs of the development of modern medicine, scientific innovation of traditional Chinese medicine.

4.3 Scientific layout of medical institutions and rationally allocate medical resources

The Logistic regression showed that among the six factors influencing the satisfaction, the OR value of the "medical treatment distance" index was the highest, which was 18.1 times that of the index of "TCM knowledge publicity", indicating that shortening the medical treatment distance can improve residents' satisfaction with TCM medical services. Therefore, according to the number of institutions, beds and permanent population and other factors, medical institutions should be scientifically and reasonably distributed to provide convenient, accessible and accessible medical and health services for residents. It is also necessary to continue to improve service quality, reduce service prices, guide the rational allocation of medical service resources, and comprehensively promote the construction of TCM service system in resource-poor areas.

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