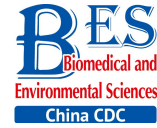## Letter to the Editor

Factors Affecting Patient Satisfaction with Community Health Service under the Gatekeeper System: A Cross-sectional Study in Nanjing, China[*]

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The gatekeeper policy has been implemented for approximately ten years on a pilot population in China. It is necessary to assess the satisfaction of patients utilizing community health service (CHS) under the gatekeeper system. Our study showed that the cognition of gatekeeper policy was associated with four dimensions including doctor-patient relationships, information and support, organization of care, and accessibility (*P* < 0.001). One or more factors such as gender and self-perceived health scores also affected their satisfaction. General practitioners must be prepared to focus on these aspects of information and support, organization of care, and accessibility as indicators of potential opportunities for improvement. Additionally, policymakers can improve patients' satisfaction with CHS by strengthening their awareness of the gatekeeper policy.

Since 1980, the Chinese health care system has improved greatly by relying on the community health care system, which is funded and owned by the government[1]. However, the privatization of China's economy based on market-oriented economic reforms[2] resulted in the large-scale dismantling of the community health service (CHS) system. In recent years, although the level of CHS had improved and is much better than before, patients still prefer well-known hospitals to community health care facilities owing to their distrust of CHS. Therefore, admissions and visits keep occurring at comprehensive and specialized hospitals[3].

As is well known, the gatekeeping function performed by CHS providers contributes to the formation of an equitable and efficient health care delivery system[4]; however, patients subjected to the gatekeeper policy are therefore restricted with regard to their choices, which may influence their satisfaction with CHS. Patient satisfaction, an indicator of the service quality, includes continuity of the service, doctor-patient relationships, communication, and professional skills of the service providers and is increasingly used to assess care quality and payment schemes by policymakers[5] and health insurance companies[6].

With the near completion of universal health insurance coverage and the establishment of the community health care network[7], the Chinese government has been implementing the gatekeeper policy on special populations such as the elderly, migrant workers, etc., and, in 2009, launched a large pilot program involving all residents with the Urban Employee's Basic Medical Insurance (UEBMI) in Nanjing. The research among this population on patient satisfaction with CHS can be helpful for improving the quality of services and policymaking.

This cross-sectional study was conducted at four community health service centers (CHCs) in Nanjing in 2015. A total of 1,100 questionnaires were distributed, out of which 1,058 were completed and collected. The European Patients Evaluate General/Family Practice (EUROPEP) scale, which contains 23 items, was used to assess patients' satisfaction with CHS. The assessment method has been introduced in a previous publication[8]. A chi-squared (χ^2) test and multi-regression analyses were used to explore the influencing factors of patient satisfaction in the context of the gatekeeper policy.

Table 1 shows the sociodemographic characteristics of participants. More than half of the participants were females (59.2%), retired (54.7%),

and with chronic conditions (56.9%). Last year, about half of the participants visited the CHC 0-3 times (50.2%), and had higher self-perceived health scores (53.9%). Of the respondents, more than half had good cognition of the gatekeeper policy (59.5%). The distribution of baseline characteristics and patients' assessments of CHS are presented in the attachment (Supplementary Tables 1a-1e, available in www. besjournal.com).

The patients' assessment of CHS is presented in Table 2. Among their assessments of five aspects of CHS, patients' positive assessment of the doctor-patient relationship was the highest (48.9%), while their most positive assessment of accessibility was only 13.9%. The Supplementary Table 2a, available in www.besjournal.com highlights the percentage of patients who gave the highest rating ('4' or '5') in the EUROPEP instrument.

Table 3 shows the results of the multiple regression analysis (including only the 100% category and the 0%-49% category) on the five dimensions of patient satisfaction with the care they received at the CHCs. Notably, good cognition of the gatekeeper policy among patients did positively influence their

Table 1. Distribution of Patients by Their Socio-demographic Characteristics

Characteristic	n (%)	Characteristic	n (%)
Age		Health score	
18-40	258 (24.4)	≥ 80	570 (53.9)
40-60	330 (31.2)	60-80	379 (35.8)
≥ 60	470 (44.4)	< 60	109 (10.3)
Gender		Chronic conditions	
Male	432 (40.8)	No	456 (43.1)
Female	626 (59.2)	Yes	602 (56.9)
Marital status		Visiting times to CHC last year	
Married	931 (88.0)	0-3	531 (50.2)
Single	127 (12.0)	4-6	110 (10.4)
Educational background		7-12	107 (10.1)
Primary school and below	72 (6.8)	≥ 12	310 (29.3)
Middle school	559 (52.8)	Cognition of gatekeeper policy	
College degree and above	427 (40.3)	Good	630 (59.5)
Income of family monthly(RMB)		General	148 (14.0)
≤ 3,000	424 (40.1)	Bad	280 (26.5)
3,000-5,000	221 (20.9)		
≥ 5,000	413 (39.0)		
Occupational type			
Administrative institution	105 (9.9)		
Retired	579 (54.7)		
Enterprise staff	219 (27.5)		
Other	83 (7.8)		

Table 2. Distribution of Patients' Satisfaction with Community Health Services

Characteristic	Most Positive Assessments[*]		Neutral Assessments[#]		Poor Assessments[†]	
	n	%	n	%	n	%
Doctor-patient-relationship (6 items)	517	48.9	327	30.9	214	20.2
Medical care (5 items)	425	40.2	229	21.6	404	38.2
Information and support (4 items)	357	33.7	319	30.2	382	36.1
Organization of care (2 items)	339	32	321	30.4	398	37.6
Accessibility (6 items)	147	13.9	221	20.9	690	65.2

Note. [*]Patients who marked 100% of the answered questions in one of the two most positive answering categories. [#]Patients who marked 100%-50% of the answered questions in one of the two most positive answering categories. [†]Patients who marked less than 50% (0%-49%) of the answered questions in one of the two most positive answering categories.

Table 3. Multi-factor Analysis of Patients' Satisfaction on Five Dimensions of Community Health Services

Variables	Doctor-patient-relationship (6 items)		Medical Care (5 items)		Information and Support (4 items)		Organization of Care (2 items)		Accessibility (6 items)	
	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P
Age										
18-40	0.600 (0.277, 1.301)	0.196	1.468 (0.769, 2.869)	0.238	0.850 (0.427, 1.695)	0.645	0.921 (0.463, 1.831)	0.841	1.350 (0.575, 3.172)	0.410
40-60	0.747 (0.426, 1.309)	0.309	0.856 (0.530, 381)	0.524	0.611 (0.366, 1.019)	0.059	1.091 (0.655, 1.815)	0.738	0.986 (0.504, 1.926)	0.967
≥ 60	Reference		Reference		Reference		Reference		Reference	
Gender										
Female	1.540 (1.078, 2.199)	0.018	1.313 (0.964, 1.793)	0.084	1.372 (0.995, 1.892)	0.054	1.607 (1.156, 2.233)	0.005	1.432 (0.949, 2.161)	0.087
Male	Reference		Reference		Reference		Reference		Reference	
Marital status										
Married	0.731 (0.422, 1.266)	0.263	0.654 (0.393, 1.088)	0.102	0.707 (0.438, 1.141)	0.156	0.891 (0.549, 1.446)	0.640	0.806 (0.454, 1.433)	0.463
Single	Reference		Reference		Reference		Reference		Reference	
Educational Background										
Primary school and below	0.325 (0.154, 0.689)	0.003	0.412 (0.204, 0.831)	0.013	0.684 (0.337, 1.388)	0.293	0.334 (0.145, 0.774)	0.010	0.247 (0.069, 0.983)	0.033
Middle school	0.834 (0.539, 1.289)	0.414	0.932 (0.645, 1.347)	0.709	0.846 (0.578, 1.237)	0.388	0.868 (0.590, 1.275)	0.470	0.646 (0.404, 1.032)	0.068
College degree and above	Reference		Reference		Reference		Reference		Reference	
Income of family monthly (RMB)										
≤ 3,000	0.753 (0.486, 1.165)	0.202	0.871 (0.603, 1.258)	0.462	0.783 (0.532, 1.151)	0.214	0.899 (0.608, 1.330)	0.594	1.283 (0.787, 2.092)	0.317
3,000-5,000	0.655 (0.410, 1.047)	0.077	0.823 (0.551, 1.228)	0.339	0.879 (0.580, 1.332)	0.543	0.893 (0.586, 1.362)	0.599	1.223 (0.728, 2.055)	0.446
≥ 5,000	Reference		Reference		Reference		Reference		Reference	
Occupational type										
Administrative Institution	0.440 (0180,1.071)	0.070	0.620 (0.305, 1.261)	0.187	0.632(0.301,1.328)	0.226	0.598(0.291,1.231)	0.163	0.727 (0.311, 1.701)	0.462
Retired	0.384 (0.164, 0.899)	0.027	0.704 (0.354, 1.401)	0.318	0.638(0.306,1.331)	0.231	0.600(0.296,1.216)	0.156	0.567 (0.233, 1.379)	0.221

Continued

Variables	Doctor-patient-relationship (6 items)		Medical Care (5 items)		Information and Support (4 items)		Organization of Care (2 items)		Accessibility (6 items)	
	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P
Enterprise staff	0.573 (0.269, 1.221)	0.149	0.750 (0.407, 1.384)	0.357	0.913 (0.482, 1.729)	0.780	0.703 (0.381, 1.296)	0.259	0.638 (0.306, 1.330)	0.231
Other	Reference		Reference		Reference		Reference		Reference	
Health score										
≥80	1.865 (0.989, 3.517)	0.054	1.810 (1.053, 3.113)	0.032	1.666 (0.962, 2.886)	0.069	1.089 (0.605, 1.961)	0.775	1.750 (0.731, 4.194)	0.209
60-80	1.429 (0.772, 2.644)	0.256	1.719 (1.013, 2.918)	0.015	1.038 (0.606, 1.778)	0.892	0.832 (0.465, 1.490)	0.537	1.374 (0.577, 3.273)	0.473
<60	Reference		Reference		Reference		Reference		Reference	
Chronic conditions										
No	1.039 (0.666, 1.620)	0.866	1.355 (0.916, 2.005)	0.128	1.085 (0.721, 1.632)	0.697	1.214 (0.806, 1.829)	0.352	1.100 (0.661, 1.831)	0.714
Yes	Reference		Reference		Reference		Reference		Reference	
Visiting times to CHC last year										
0-3	0.339 (0.203, 0.566)	<0.001	0.653 (0.431, 0.988)	0.044	0.653 (0.424, 1.006)	0.053	0.458 (0.290, 0.722)	0.001	1.282 (0.727, 2.261)	0.390
4-6	0.584 (0.295, 1.156)	0.122	0.823 (0.474, 1.428)	0.488	0.937 (0.534, 1.643)	0.820	1.048 (0.587, 1.868)	0.875	1.881 (0.923, 3.832)	0.082
7-12	0.376 (0.196, 0.725)	0.003	0.645 (0.374, 1.114)	0.116	0.595 (0.331, 1.070)	0.083	0.804 (0.449, 1.440)	0.464	1.269 (0.600, 2.682)	0.533
≥12	Reference		Reference		Reference		Reference		Reference	
Cognition of the gatekeeper policy										
Good	1.780 (1.201, 2.638)	0.004	1.273 (0.892, 1.818)	0.184	1.775 (1.734, 3.891)	0.002	2.962 (1.997, 4.392)	<0.001	8.211 (3.878, 17.386)	<0.001
General	1.230 (0.729, 2.076)	0.437	1.431 (0.883, 2.321)	0.146	2.056 (1.704, 5.094)	0.005	2.847 (1.674, 4.843)	<0.001	9.335 (4.034, 21.602)	<0.001
Bad	Reference		Reference		Reference		Reference		Reference	

satisfaction on four dimensions, (P < 0.001) especially with regard to accessibility (7.497, 3.552-15.823), but did not positively influence medical care. Besides, it was also the only influencing factor for the dimension of information and support (1.775, 1.734-3.891 for good and 2.056, 1.704-5.094 for general).

China's health care reform has resulted in the expansion of health insurance coverage and strengthened the infrastructure of primary health facilities since 2009. However, it is difficult to transform investments and insurance coverage into cost-effective services with fragmented and inefficient health care delivery[7]. In this case, the asymmetries in medical information between patients and health care providers make it difficult for patients to make sound choices without guidance and, in return, aggravate the inefficient delivery of health service. In many developed countries, gatekeeper policies play an important role in the process of forming an effective health service system[4]. In China, many pilot programs of gatekeeper policy have been launched, and this study is the first attempt to assess patients' satisfaction among the population with UEBMI.

The EUROPEP scale is beneficial for the makers of health policies in developing First Step systems and has been implemented in 16 European countries[8]. In China, few studies on patient satisfaction have been conducted using the EUROPEP scale and only one study[9] evaluated its reliability (Cronbach's α = 0.945). Our study shows that the EUROPEP scale is suitable for assessing patient satisfaction with high reliability and validity (Cronbach's α = 0.960 and KMO = 0.958), and we believe it will contribute to international comparisons of patient satisfaction with CHS, especially in countries where the general practitioner (GP) is the gatekeeper.

Consistent with the previous study[10], our study indicates that sociodemographic differences with statistical significance vary in assessments of CHS. In China, doctor-patient relationships have become a public health concern to which close attention is paid. Our results suggest that patients are most satisfied with the doctor-patient relationship aspect, which indicates the advantage of CHCs and the importance of the gatekeeper policy. In addition, our study shows that a high proportion of patients poorly assessed the aspect of medical care, which is an influencing factor of community patients' satisfaction. It is worth noting that patients are least

satisfied with accessibility, and the aspects of 'getting through to the practitioner on the phone' and 'getting an appointment to suit you' may be good goals to improve accessibility. Thus, GPs must be prepared to focus on the aspect of accessibility as an indicator of the potential opportunity for improvement. In addition, the item 'waiting time in the waiting room' was positively assessed, which suggests that it is easier for patients to visit doctors at CHCs rather than at hospitals in China.

The multivariable logistic regression analyses suggest that the influencing factors of patients' satisfaction among the five dimensions are diverse and that age, marital status, educational background, self-perceived health status, frequency of visits to CHCs, and chronic diseases influence their assessment of CHS at different levels. As such, excepting to improve services by making residents comprehend the policy may be important to achieve overall satisfaction among patients.

There are some limitations to this study. First, the potential influencing factors of patient satisfaction with CHS are possibly more than those we investigated. Second, the study is based on a convenient sample of patients who had just completed their visits to CHCs. The fact that they were at the CHCs at the moment of the survey may indicate their willingness to seek care at CHCs, which may have induced an overestimated level of satisfaction. Finally, although our results illustrate the high reliability and validity of the EUROPEP scale, more studies are needed to examine the further applicability of the scale to the Chinese population.

Patients' satisfaction, as the basic criteria for acquiring information with regard to what extent their expectations are met, is an important indicator for the assessment of the gatekeeper policy. Patients' good cognition of the policy is positively associated with their satisfaction, and improvements of the aspects of information and support, medical care, and accessibility may be good goals for patient satisfaction.

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SUPPLEMENTARY INFORMATION

Table 1a. Distribution of Characteristics among Patients on Doctor-Patient-Relationship

Item	Most Positive Assessments[*] (517)	Neutral Assessments[#] (327)	Poor Assessments[†](214)	χ^2	P
Age					
18-40	134 (25.9)	70 (21.4)	54 (25.2)	2.701	0.609
40-60	155 (30.0)	110 (33.6)	65 (30.4)		
≥ 60	228 (44.1)	147 (45.0)	95 (44.4)		
Gender					
Male	200 (38.7)	131 (40.1)	100 (46.9)	4.146	0.126
Female	317 (61.3)	196 (59.9)	114 (53.1)		
Marital status					
Married	449 (86.8)	293 (89.6)	189 (88.3)	1.466	0.481
Single	68 (13.2)	34 (10.4)	25 (11.7)		
Educational Background					
Primary school and below	26 (5.1)	21 (6.4)	25 (11.7)	12.255	0.016
Middle school	274 (53.0)	170 (52.0)	115 (53.7)		
College degree and above	217 (41.9)	136 (41.6)	74 (34.6)		
Income of family monthly					
≤ 3,000	201 (38.8)	128 (39.2)	96 (44.7)	6.665	0.155
3,000-5,000	103 (20.0)	67 (20.4)	51 (24.0)		
≥ 5,000	213 (41.2)	132 (40.4)	67 (31.3)		
Occupational type					
Administrative institution	43 (8.3)	43 (13.1)	19 (8.9)	14.234	0.027
Retired	272 (52.6)	189 (57.8)	118 (55.1)		
Enterprise staff	158 (30.6)	69 (21.1)	64 (29.9)		
other	44 (8.5)	26 (8.0)	13 (6.1)		
Health score					
≥ 80	287 (55.5)	172 (52.6)	111 (51.9)	11.356	0.023
60-80	192 (37.1)	108 (33.0)	79 (36.9)		
< 60	38 (7.4)	47 (14.4)	24 (11.2)		
Chronic conditions					
No	225 (43.5)	133 (40.7)	98 (45.8)	1.456	0.483
Yes	292 (56.5)	194 (59.3)	116 (54.2)		
Visiting times to CHC last year					
0-3	250 (48.4)	146 (44.6)	135 (63.1)	28.434	< 0.001
4-6	55 (10.6)	36 (11.0)	19 (8.9)		
7-12	46 (8.9)	35 (10.7)	26 (12.1)		
≥ 12	166 (32.1)	110 (33.6)	34 (15.9)		

Note. [*]Patients who marked 100% of the answered questions in one of the two most positive answering categories. [#]Patients who marked 50%-100% of the answered questions in one of the two most positive answering categories. [†]Patients who marked less than 50% (0%-49%) of the answered questions in one of the two most positive answering categories.

Table 1b. Distribution of Characteristics among Patients on Medical Care

Item	Most Positive Assessments[*] (425)	Neutral Assessments[#] (229)	Poor Assessments[†] (404)	χ^2	P
Age					
18-40	135 (31.8)	48 (21.0)	75 (18.6)	21.491	< 0.001
40-60	118 (27.8)	75 (32.8)	137 (33.9)		
≥ 60	172 (40.5)	106 (46.3)	192 (47.5)		
Gender					
Male	164 (38.5)	92 (40.2)	176 (43.5)	2.175	0.337
Female	261 (61.5)	137 (59.8)	228 (56.5)		
Marital status					
Married	369 (86.9)	190 (82.9)	371 (91.9)	11.57	0.003
Single	56 (13.1)	39 (17.1)	33 (10.1)		
Educational Background					
Primary school and below	18 (4.3)	12 (5.2)	42 (10.4)	18.926	0.001
Middle school	218 (51.2)	119 (52.0)	223 (55.1)		
College degree and above	189 (44.5)	98 (42.8)	139 (34.5)		
Income of family monthly					
≤ 3,000	153 (36.0)	93 (40.7)	178 (44.1)	8.172	0.085
3,000-5,000	88 (20.8)	45 (19.5)	88 (21.9)		
≥ 5,000	184 (43.2)	91 (39.8)	138 (34.0)		
Occupational type					
Administrative institution	43 (10.1)	20 (8.7)	42 (10.4)	12.301	0.056
Retired	207 (48.7)	136 (59.4)	236 (58.4)		
Enterprise staff	137 (32.2)	55 (24.0)	99 (24.5)		
other	38 (8.9)	18 (7.9)	27 (6.7)		
Health score					
≥ 80	244 (57.4)	124 (54.1)	202 (50.0)	10.233	0.037
60-80	150 (35.3)	82 (35.8)	147 (36.4)		
< 60	31 (7.3)	23 (10.0)	55 (13.6)		
Chronic conditions					
No	210 (49.4)	90 (39.3)	156 (38.6)	11.567	0.003
Yes	215 (50.6)	139 (60.7)	248 (61.4)		
Visiting times to CHC last year					
0-3	215 (50.6)	108 (47.2)	208 (51.5)	2.618	0.855
4-6	46 (10.8)	26 (11.4)	38 (9.4)		
7-12	39 (9.2)	23 (10.0)	45 (11.1)		
≥ 12	125 (29.4)	72 (31.4)	113 (28.0)		
Cognition of the gatekeeper policy					
Good	265 (62.3)	140 (61.1)	225 (55.7)	13.897	0.008
General	69 (16.3)	21 (9.2)	58 (14.4)		
Bad	91 (21.4)	68 (29.7)	121 (30.0)		

Note. [*]Patients who marked 100% of the answered questions in one of the two most positive answering categories. [#]Patients who marked 50%-100% of the answered questions in one of the two most positive answering categories. [†]Patients who marked less than 50% (0%-49%) of the answered questions in one of the two most positive answering categories.

Table 1c. Distribution of Characteristics among Patients on Information and Support

Item	Most Positive Assessments[*] (357)	Neutral Assessments[#] (319)	Poor Assessments[†] (382)	χ^2	P
Age				25.928	< 0.001
18-40	119 (33.3)	58 (18.2)	81 (21.2)		
40-60	91 (25.5)	107 (33.5)	132 (34.6)		
≥ 60	147 (41.2)	154 (48.3)	169 (44.2)		
Gender				2.044	0.360
Male	137 (38.4)	128 (40.2)	166 (43.5)		
Female	220 (61.6)	191 (59.2)	216 (56.5)		
Marital status				6.923	0.031
Married	301 (84.3)	287 (89.9)	343 (89.7)		
Single	56 (15.7)	32 (10.1)	39 (10.3)		
Educational Background				13.857	0.008
Primary school and below	21 (5.9)	17 (5.4)	34 (8.9)		
Junior middle school	168 (47.0)	182 (56.8)	210 (55.0)		
Associate college	168 (47.0)	120 (37.9)	138 (36.1)		
Income of family monthly				12.339	0.015
≤ 3,000	126 (35.2)	124 (39.0)	174 (45.6)		
3,000-5,000	80 (22.4)	59 (18.4)	83 (21.6)		
≥ 5,000	151 (42.3)	136 (42.5)	125 (32.8)		
Occupational type				16.752	0.010
Administrative institution	36 (10.1)	29 (9.1)	40 (10.5)		
Retired	170 (47.6)	193 (60.5)	216 (56.5)		
Enterprise staff	122 (34.2)	69 (21.6)	100 (26.2)		
other	29 (8.1)	28 (8.8)	26 (6.8)		
Health score				13.944	0.007
≥ 80	217 (60.8)	167 (52.4)	186 (48.7)		
60-80	109 (30.5)	124 (38.9)	146 (38.2)		
< 60	31 (8.7)	28 (8.8)	50 (13.1)		
Chronic conditions				5.23	0.073
No	171 (47.9)	127 (39.8)	158 (41.4)		
Yes	186 (52.1)	192 (60.2)	224 (58.6)		
Visiting times to CHC last year				11.462	0.075
0-3	184 (51.5)	142 (44.5)	205 (53.7)		
4-6	42 (11.8)	30 (9.4)	38 (9.9)		
7-12	30 (8.4)	35 (11.0)	42 (11.0)		
≥12	101 (28.3)	112 (35.1)	97 (25.4)		
Cognition of the gatekeeper policy				20.693	< 0.001
Good	226 (63.2)	195 (61.1)	209 (54.7)		
General	63 (17.7)	36 (11.3)	49 (12.8)		
Bad	68 (19.1)	88 (27.6)	124 (32.5)		

Note. [*]Patients who marked 100% of the answered questions in one of the two most positive answering categories. [#]Patients who marked 50%-100% of the answered questions in one of the two most positive answering categories. [†]Patients who marked less than 50% (0%-49%) of the answered questions in one of the two most positive answering categories.

Table 1d. Distribution of Characteristics among Patients on Organisation of Care

Item	Most Positive Assessments[*] (339)	Neutral Assessments[#] (321)	Poor Assessments[†] (398)	χ^2	P
Age					
18-40	101 (29.8)	53 (16.5)	104 (26.1)	21.707	< 0.001
40-60	112 (33.0)	101 (31.5)	117 (29.4)		
≥ 60	126 (37.2)	167 (52.0)	177 (44.5)		
Gender					
Male	114 (33.7)	138 (43.0)	178 (44.9)	10.683	0.005
Female	225 (65.3)	183 (57.0)	218 (55.1)		
Marital status					
Married	294 (86.6)	290 (90.3)	340 (87.2)	2.438	0.295
Single	45 (14.5)	31 (9.7)	50 (12.6)		
Educational Background					
Primary school and below	11 (3.3)	26 (8.1)	35 (8.8)	15.213	0.004
Middle school	172 (50.7)	181 (56.3)	207 (51.9)		
College degree and above	156 (46.0)	114 (35.6)	156 (39.3)		
Income of family monthly					
≤ 3,000	123 (36.4)	134 (41.6)	168 (42.1)	4.789	0.310
3,000-5,000	73 (21.5)	61 (18.9)	88 (22.1)		
≥ 5,000	143 (42.1)	126 (39.4)	142 (35.9)		
Occupational type					
Administrative institution	36 (10.6)	29 (9.0)	40 (10.1)	17.478	0.008
Retired	161 (47.5)	202 (62.9)	216 (54.3)		
Enterprise staff	107 (31.6)	72 (22.4)	112 (28.1)		
other	35 (10.3)	18 (5.6)	30 (7.5)		
Health score					
≥ 80	203 (59.9)	146 (45.5)	221 (55.5)	14.504	0.006
60-80	106 (31.3)	135 (42.0)	138 (34.7)		
< 60	30 (8.8)	40 (12.5)	39 (9.8)		
Chronic conditions					
No	164 (48.4)	108 (33.6)	184 (46.2)	17.143	< 0.001
Yes	175 (51.6)	213 (66.4)	214 (53.8)		
Visiting times to CHC last year					
0-3	161 (47.5)	127 (39.6)	243 (61.1)	58.191	< 0.001
4-6	47 (13.9)	27 (8.4)	36 (9.0)		
7-12	40 (11.8)	28 (8.7)	39 (9.8)		
≥ 12	91 (26.8)	139 (43.3)	80 (20.1)		
Cognition of the gatekeeper policy					
Good	236 (69.5)	188 (58.6)	206 (51.8)	42.825	< 0.001
General	54 (16.0)	44 (13.7)	50 (12.6)		
Bad	49 (14.5)	89 (27.7)	142 (35.7)		

Note. [*]Patients who marked 100% of the answered questions in one of the two most positive answering categories. [#]Patients who marked 50%-100% of the answered questions in one of the two most positive answering categories. [†]Patients who marked less than 50% (0%-49%) of the answered questions in one of the two most positive answering categories.

Table 1e. Distribution of Characteristics among Patients on Accessibility

Item	Most Positive Assessments[*] (147)	Neutral Assessments[#] (221)	Poor Assessments[†] (690)	χ^2	P
Age					
18-40	57 (38.8)	60 (27.1)	141 (20.4)	25.648	< 0.001
40-60	44 (29.9)	68 (30.8)	218 (31.6)		
≥ 60	46 (31.3)	93 (42.1)	331 (48.0)		
Gender					
Male	52 (35.2)	88 (39.7)	292 (42.3)	2.538	0.281
Female	95 (64.8)	133 (60.3)	398 (57.7)		
Marital status					
Married	123 (83.4)	195 (88.2)	612 (88.8)	2.903	0.234
Single	24 (16.6)	26 (11.8)	78 (11.2)		
Educational Background					
Primary school and below	3 (2.1)	12 (5.4)	57 (8.3)	22.246	< 0.001
Middle school	62 (42.1)	118 (53.4)	379 (54.9)		
College degree and above	82 (55.9)	91 (41.2)	254 (36.8)		
Income of family monthly					
≤ 3,000	52 (35.7)	79 (35.9)	293 (42.4)	4.997	0.288
3,000-5,000	33 (22.4)	47 (21.4)	141 (20.5)		
≥ 5,000	62 (42.0)	95 (42.7)	256 (37.1)		
Occupational type					
Administrative institution	20 (13.6)	25 (11.3)	60 (8.7)	24.694	< 0.001
Retired	58 (39.5)	111 (50.2)	410 (59.4)		
Enterprise staff	53 (36.1)	61 (27.6)	177 (25.7)		
Other	16 (10.9)	24 (10.9)	43 (6.2)		
Health score					
≥ 80	93 (63.3)	126 (57.0)	351 (50.9)	10.276	0.036
60-80	46 (31.3)	72 (32.6)	261 (37.8)		
< 60	8 (5.4)	23 (10.4)	78 (11.3)		
Chronic conditions					
No	79 (53.7)	99 (44.8)	278 (40.3)	9.269	0.010
Yes	68 (46.3)	122 (55.2)	412 (59.7)		
Visiting times to CHC last year					
0-3	82 (55.8)	99 (44.8)	350 (50.7)	10.902	0.091
4-6	18 (12.2)	31 (14.0)	61 (8.8)		
7-12	15 (10.2)	25 (11.3)	67 (9.7)		
≥ 12	32 (21.8)	66 (29.9)	212 (30.7)		
Cognition of gatekeeper system					
Good	106 (72.1)	145 (65.6)	378 (54.9)	53.261	< 0.001
General	32 (21.8)	32 (14.5)	84 (12.2)		
Bad	9 (6.1)	44 (19.9)	227 (32.9)		

Note. [*]Patients who marked 100% of the answered questions in one of the two most positive answering categories. [#]Patients who marked 50%-100% of the answered questions in one of the two most positive answering categories. [†]Patients who marked less than 50% (0%-49%) of the answered questions in one of the two most positive answering categories.

Table 2a. Distribution of Patients' Most Positive Assessment[*] of Each Item

What is your opinion of the general practitioner and/or general practice over the last 12 months with respect to...	Rank	Percent (%)
Doctor-patient-relationship		
1 making you feel you had time during consultations	4	68.9
2 interest in your personal situation?	5	68.8
3 making it easy for you to tell him or her about your problems?	1	78.1
4 involving you in decisions about your medical care?	10	62.3
5 listening to you?	2	76.4
6 keeping your records and data confidential?	3	71.6
Medical care		
7 quick relief of your symptoms?	9	63.2
8 helping you to feel well so that you can perform your normal daily activities?	7	65.8
9 thoroughness?	14	58.8
10 physical examination of you?	13	59.6
11 offering you services for preventing diseases?	16	51.4
Information and support		
12 explaining the purpose of tests and treatments (eg. screening, health checks, immunisations)	12	60.0
13 telling you what you wanted to know about your symptoms and/or illness?	8	63.3
14 helping you deal with emotional problems related to your health status?	18	40.3
15 helping you understand the importance of following his or her advice?	11	62.0
Organisation of care		
16 knowing what he or she had done or told you during contacts?	15	55.9
17 preparing you for what to expect from specialist or hospital care?	19	38.9
Accessibility		
18 the helpfulness of the staff (other than doctor)?	17	50.7
19 getting an appointment to suit you?	22	25.1
20 getting through to the practice on the phone?	23	23.2
21 being able to speak to the general practitioner on the telephone?	20	34.4
22 waiting time in the waiting room?	6	66.1
23 providing quick services for urgent health problems?	21	27.6

Note. [*]With a score of 4 or 5 on the 5 point Likert scale.