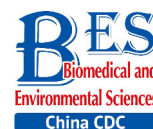# Letter to the Editor

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.