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# Factors Affecting the Preference for Hospitals Over Clinics in Primary Care in Korea

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## ABSTRACT

**Background:** While the effect of gatekeeping was extensively studied, few efforts have been made to explain why the measures to strengthen gatekeeping do not work well in some countries. This study examined the patient factors related to the choice of level of health care facilities for outpatient care in Korea.

**Methods:** We examined a population-based sample representative of the population of Korea aged 15 and over in the healthcare experience survey of 2021. A logistic regression model examined the factors associated with choosing hospitals or clinics for outpatient care.

**Results:** Easy accessibility, kindness of medical staff, and recommendations from acquaintances were considered more important for those who chose clinics over hospitals. While those who chose clinics were more likely to feel that physicians and nurses more readily communicated with patients, those who chose hospitals were more likely to feel that the facility was comfortable. Whereas those who chose hospitals were more likely to trust the current health care system in Korea, those who chose clinics were more likely to think that the health care system needed to be reformed. The tendency was similar when analyzed only among those with good perceived health conditions and without chronic diseases.

**Conclusion:** This study demonstrates that the preference for hospitals over clinics is mainly based on desire rather than medical need and is not likely to be affected by measures intended to induce a voluntary change of behavior.

**Keywords:** Primary Health Care; Hospitals; Health Behavior; Gatekeeping; Korea

## INTRODUCTION

The right to health is considered a basic human right. Access to health care is recognized as a basic right in the constitutions of over half of the UN member countries.<sup>1</sup> Given the significance of health as a basic right and the financial burden of unexpected health events, countries have tried to secure access to care through third-party financing, including national health services, social insurance, and voluntary insurance.<sup>2</sup> In view of the growing health care costs due to technology development, increasing demand for more and better care, and the possible moral hazard inherent in third-party payments, cost containment has become an

important issue, and gatekeeping has been implemented as a measure for controlling health care costs.<sup>3</sup>

Gatekeeping in health care refers to the practice of a primary physician's decision regarding whether to transfer patients from primary care to a higher level of service. It can be also understood, in a broader sense, as an institutional measure which separates access to different levels of health care facilities.<sup>4</sup> The degree of gatekeeping differs widely among countries depending on the type of health care system and payment methods.<sup>5</sup> It is obligatory in half of the European countries, while being promoted in half of the rest, and is implemented in the health management plan of the US.<sup>5,6</sup> However, despite efforts to implement it,<sup>7-12</sup> gatekeeping remains a nominal measure in some Asian countries, such as China, Japan, Korea, and Taiwan, which have adopted social health insurance.<sup>13-16</sup>

The cultural background and history of a rather short-term introduction of a modern health care system in these countries suggest that the failure of gatekeeping needs to be investigated from a socio-cultural as well as policy perspective. In this respect, understanding the behavior and motivation of patients in the context of social circumstances would be important. Although the effect of gatekeeping was extensively studied, little has been investigated about why the measures to strengthen gatekeeping did not work well. The few studies about the failure of implementing gatekeeping focused mainly on the health care system and providers with less attention given to patient characteristics.<sup>7,8,10</sup> Considering that patients are the ones who choose the health care facilities and should be the ultimate ones for whom the policy measures should work, understanding the desire and behavior of patients would be essential for successful implementation of policies for gatekeeping.

Korea offers a vivid picture of how the health care user's preference is manifested in the near absence of gatekeeping. With nominal measures for gatekeeping, patients in Korea can visit higher levels of health care facilities for primary care. The Korean government has taken various measures to regulate arbitrary access to hospital care, such as forced designation of health service areas, referral slips for visiting tertiary hospitals, and differential coinsurance among the levels of facilities, which have not led to the desired effects.<sup>10</sup> Rather, the share of large-sized hospitals in outpatient care has been on a steady rise compared to clinics which tend to shrink.<sup>17</sup>

The Korean situation deserves a careful study in that it is a striking example of the imbalance among the levels of health care facilities. Although the imbalance involves not only patients' preference but also the interests of hospitals and the government which can control the measures to prevent it, examining the factors of preference from the side of patients would be the first step toward understanding this problem. A paucity of studies investigated the motives for choosing a provider in primary care, which revealed the different priorities of values for choosing health care facilities.<sup>18</sup> However, how the specific aspects of service are related to the choice and how the view of the health care system is reflected in the choice remain to be investigated. This study was performed to examine the patient factors related to the choice of level of health care facilities for primary care by examining the choice between hospitals and clinics for outpatient care in Korea.

## METHODS

### Data and study population

We used the healthcare experience survey 2021 in Korea. The healthcare experience survey is a nationwide survey which has been performed annually since 2017 by the Ministry of Health and Welfare in Korea. The survey includes socio-demographic characteristics, health status, health care utilization, attitudes toward the health care system, health care costs, and medical check-ups.<sup>19</sup>

The target population was 42,254,722 persons aged 15 and over from 20,343,188 households from the population and housing census of 2019. A two-stage probability proportional to size sampling was adopted with enumeration areas, which are operational units for taking census,<sup>20</sup> as primary sampling units and households as secondary sampling units. With 372,373 enumeration areas as the final sampling frame and 26 strata based on geographical units, 6,000 households from 600 enumeration areas were selected. A total of 13,456 persons from 6,000 households participated in the survey. A face-to-face survey was conducted from July 19 through September 17, 2021.<sup>21</sup> Among 13,456 persons who participated in the survey, 7,782 answered that they had used the outpatient service during the past year. Finally, 6,175 persons, who chose hospitals or clinics for their recent outpatient visits, were included in the analysis.

### Dependent variable

The dependent variable was the choice of the type of health care facility for recent outpatient care. Participants were asked which type of health care facility they had used for the most recent outpatient visit during the past year. Responses were 1) hospitals, 2) clinics, 3) facilities for oriental medicine, 4) dental hospitals/clinics, and 5) others. Only those who chose hospitals or clinics were included in the analysis.

### Determining the purpose of outpatient visits

The analysis was performed on the premise that outpatient care was for primary care; the purpose of the outpatient visit was not specified in the data. In order to make the purpose of the outpatient visit approximate primary care, we adopted two methods. First, we adjusted the health status of the study subjects with the variables of subjective health status and number of chronic diseases as poor health status makes the purpose of an outpatient visit less likely due to a minor cause. Second, we performed an additional analysis only for those with good perceived health status (rated very good or good) and without chronic disease in order to raise the possibility that the outpatient visit was for a minor cause.

### Independent variable

The variables which can be related to preference for health care providers: First, socio-demographic characteristics were included, such as sex, age (15–19, 20–29, 30–39, 40–49, 50–59, and 60 and over), education (primary, secondary, and tertiary), income (5 quintiles) and type of health insurance (national health insurance and medical aid). Second, in order to adjust for the health status of the participants for their preference in the level of health care facilities, the number of chronic diseases (none, one, and two or more) and perceived health status (very poor, poor, fair, good, and very good). Third, participants were asked to choose only one reason for choosing the facilities: easy accessibility, kindness of medical staff, advanced technology and equipment, reputation, recommendations from acquaintances, or lower cost of treatment. Fourth, in order to examine how the services of health care

facilities and the attitudes of the medical staff were related to patients' preference, variables assessing the services of physicians, nurses, and facilities were included. Fifth, to investigate the relationship of the patient's view of physicians and health care system with the choice of health care facility, general trust in the health care system (5-point scale: not at all to very much), satisfaction with the current health care system (5-point scale: not at all to very much), and the need for revision of the current health care system (5-point scale: strongly disagree to strongly agree) were used as independent variables.

### Statistical analysis

We performed a *t*-test to examine the differences in independent factors among the groups which chose hospitals and clinics. The binary logistic regression was applied to describe the patient characteristics which are associated with the types of health care facilities. To evaluate the goodness-of-fit of logistic models, the Cox and Snell  $R^2$  and Nagelkerke  $R^2$  were used. For data acquisition and analysis, IBM SPSS Software (version 26; IBM Corp., Armonk, NY, USA) was used.

### Ethics statement

This study was approved by the Institutional Review Board of Seoul National University Hospital, which granted a waiver of informed consent (IRB No: 2312-051-1490).

## RESULTS

General characteristics of population are presented in **Table 1**. No difference was found in the preference of type of health care facilities by sex, but there was a significant difference in age distribution, education, and income. A higher proportion of older people favored hospitals over clinics, while a higher proportion of people with higher education and income chose clinics over hospitals. In terms of health status, the proportions of those with chronic diseases and those with perceived poor health status were higher among people who chose hospitals.

Regarding the reason for choosing facilities (**Table 2**), easy accessibility and kindness of medical staffs were considered more important in the groups choosing clinics. Advanced technology, equipment, and reputation were considered more important in the groups that chose hospitals. Concerning the service of the facility, those who chose hospitals tended to be more satisfied with the services. The trust and satisfaction with the current health care system were higher among those who chose hospitals, while those who chose clinics felt more of a need for health care reform.

**Table 3** presents the results of binary logistic regression analyses of the choice of types of health care facility. The choice of hospitals over clinics was associated with higher age and a higher number of chronic illnesses, whereas better perceived health status was associated with choosing clinics. Easy accessibility, kindness of medical staff, and recommendations from acquaintances were considered more important for those who chose clinics. Concerning the attitude of the staffs, those who chose clinics were more likely to agree that the physician saw to it that they could ask a question or express their concerns and that the nurse gave a sufficient explanation about the treatment. But those who chose hospitals were more likely to feel that the facility was comfortable to use. Lastly, those who chose hospitals were more likely to trust the current health care system in Korea, whereas those who chose clinics were more likely to think that the health care system needed to be reformed.

**Table 1.** General characteristics of the participants

Characteristics	Hospitals	Clinics	Total	P value
Total	1,388 (100)	4,787 (100)	6,175 (100)	
Sex				0.087
Male	650 (46.8)	2,117 (44.2)	2,767 (44.8)	
Female	738 (53.2)	2,670 (55.8)	3,408 (55.2)	
Age group (yrs)				< 0.001
15–19	7 (0.5)	141 (2.9)	148 (2.4)	
20–29	52 (3.7)	357 (7.5)	409 (6.6)	
30–39	81 (5.8)	473 (9.9)	554 (9.0)	
40–49	131 (9.4)	574 (12.0)	705 (11.4)	
50–59	343 (24.7)	1,229 (25.7)	1,572 (25.5)	
≥ 60	774 (55.8)	2,013 (42.1)	2,787 (45.1)	
Education				< 0.001
Primary education	163 (11.7)	383 (8.0)	546 (8.8)	
Secondary education	857 (61.7)	2,883 (60.2)	3,740 (60.6)	
Tertiary education	368 (26.5)	1,521 (31.8)	1,889 (30.6)	
Monthly household income				< 0.001
Lowest quintile	473 (34.1)	1,145 (23.9)	1,618 (26.2)	
Second quintile	274 (19.7)	1,000 (20.9)	1,274 (20.6)	
Third quintile	230 (16.6)	857 (17.9)	1,087 (17.6)	
Fourth quintile	207 (14.9)	906 (18.9)	1,113 (18.0)	
Highest quintile	204 (14.7)	879 (18.4)	1,083 (17.5)	
Type of health insurance				< 0.001
National Health Insurance	1,298 (93.5)	4,625 (96.6)	5,923 (95.9)	
Medical aid	90 (6.5)	162 (3.4)	252 (4.1)	
No. of chronic diseases				< 0.001
None	514 (37.0)	2,755 (57.6)	3,269 (52.9)	
One	502 (36.2)	1,397 (29.2)	1,899 (30.8)	
Two or more	372 (26.8)	635 (13.3)	1,007 (16.3)	
Perceived health status				< 0.001
Very good	88 (6.3)	538 (11.2)	626 (10.1)	
Good	607 (43.7)	2,626 (54.9)	3,233 (52.4)	
Moderate	472 (34.0)	1,313 (27.4)	1,785 (28.9)	
Bad	201 (14.5)	298 (6.2)	499 (8.1)	
Very bad	20 (1.4)	12 (0.3)	32 (0.5)	

Values are presented as number (%).

An analysis of those with good perceived health status and without chronic disease is presented in **Table 4**. Among those with good health conditions, the characteristics associated with the choice between clinics and hospitals were similar to the total study population with some minor differences in the strength of association and statistical significance. As for a reason for choosing the facility, easy accessibility, kindness of medical staff, and recommendations from acquaintances were also considered more important among those who chose clinics with far higher odds ratios, and advanced technology and equipment were additionally considered more important among those who chose clinics. Regarding the attitude of the physicians, those who chose clinics were less likely to agree that the physician gave a detailed explanation about treatment plan and precautions. Similar to the case in the total study population, those who chose clinics, among those with good health conditions, were more likely to think that the nurse gave a sufficient explanation about the treatment. Concerning the service of the facility, those who chose clinics were less likely to think that they were satisfied with the administrative services and more likely to think that the health care system needed to be reformed.

**Table 2.** Factors for the choice of health care facilities

Characteristics	Hospitals	Clinics	Total	P value
Reason for choosing the facility				< 0.001
Easy accessibility	221 (15.9)	1,743 (36.4)	1,964 (31.8)	
Kindness of medical staff	82 (5.9)	727 (15.2)	809 (13.1)	
Advanced technology and equipment	619 (44.6)	1,558 (32.5)	2,177 (35.3)	
Reputation	326 (23.5)	297 (6.2)	623 (10.1)	
Recommendations from acquaintances	105 (7.6)	428 (8.9)	533 (8.6)	
Lower cost of treatment	25 (1.8)	25 (0.5)	50 (0.8)	
Other	10 (0.7)	9 (0.2)	19 (0.3)	
Physicians' attitudes toward patients				
Was he/she polite to you?	4.27 ± 0.56	4.21 ± 0.55	4.23 ± 0.56	< 0.001
Did he/she explain to you in detail about exams, treatments, and procedures?	4.34 ± 0.65	4.28 ± 0.69	4.29 ± 0.68	0.004
Did he/she see to it that you asked a question or expressed your concerns?	4.24 ± 0.65	4.25 ± 0.65	4.25 ± 0.65	0.795
Did he/she reflect your opinion well in the course of treatment?	4.25 ± 0.63	4.25 ± 0.64	4.25 ± 0.64	0.957
Did he/she sympathize with your anxiety about your health?	4.10 ± 0.74	4.06 ± 0.72	4.07 ± 0.73	0.110
Did he/she explain to you in detail about treatment plans and precautions?	4.27 ± 0.61	4.22 ± 0.64	4.23 ± 0.64	0.013
Did you talk to your physician sufficiently?	4.03 ± 0.76	4.03 ± 0.68	4.03 ± 0.70	0.813
Nurses' attitudes toward patients				
Was he/she polite to you?	4.28 ± 0.59	4.22 ± 0.56	4.23 ± 0.57	0.004
Did he/she explain to you in detail and well about the treatment process?	4.30 ± 0.65	4.29 ± 0.67	4.29 ± 0.66	0.654
Service of the facility				
Was the facility comfortable?	4.26 ± 0.57	4.19 ± 0.56	4.21 ± 0.56	< 0.001
Were you satisfied with the administrative services?	4.27 ± 0.65	4.24 ± 0.66	4.24 ± 0.66	0.095
Attitude about the health care system in Korea				
I trust the health care system in Korea.	3.89 ± 0.73	3.77 ± 0.71	3.80 ± 0.72	< 0.001
I am satisfied with the health care system in Korea.	3.89 ± 0.70	3.83 ± 0.70	3.84 ± 0.70	0.004
The health care system in Korea needs to be reformed.	3.26 ± 0.93	3.37 ± 0.86	3.35 ± 0.88	< 0.001

Data are shown as number (%) or mean ± standard deviation.

## DISCUSSION

This study examined factors related to the choice of level of health care facilities for outpatient care in Korea. Easy accessibility, kindness of medical staff, and recommendations from acquaintances were considered more important for those who chose clinics over hospitals. While those who chose clinics were more likely to feel that physicians and nurses more readily communicated with patients, those who chose hospitals were more likely to feel that the facility was comfortable. Whereas those who chose hospitals were more likely to trust the health care system in Korea, those who chose clinics were more likely to think that the health care system in Korea needed to be reformed. The tendency was similar when analyzed only among those with good perceived health conditions and without chronic diseases, and the contrast between the two groups tended to be stronger with some minor difference in the statistical significance.

Our study shows that the preference for hospitals over clinics is largely dependent on the preference for high quality of treatment and equipment while sacrificing convenience of access. A similar tendency was found among those who tended to choose hospitals for primary care service in Korea and China.<sup>18,22</sup> Given that patients give priority to quality over emotional attributes,<sup>23-25</sup> preference for hospitals over clinics can be considered a more accurate reflection of patients' essential desires. It is noteworthy that people who chose hospitals were more likely to trust the health care system, while those who chose clinics tended to think that some revision of the health care system was necessary. Higher trust and less demand for change in the current health care system among those who chose hospitals, compared to those who chose clinics, suggest that their desires are comparatively better

**Table 3.** Logistic regression analysis of choosing clinics over hospitals for outpatient care

Characteristics	OR	95% CI	P value
Sex			
Male			
Female	1.097	0.958–1.255	0.181
Age group, yr			
15–19			
20–29	0.372*	0.159–0.871	0.023
30–39	0.349*	0.151–0.810	0.014
40–49	0.292**	0.128–0.665	0.003
50–59	0.275**	0.123–0.615	0.002
≥ 60	0.273**	0.122–0.610	0.002
Education			
Primary education			
Secondary education	0.372	0.159–0.871	0.513
Tertiary education	0.349	0.151–0.810	0.073
Monthly household income			
Lowest quintile			
Second quintile	1.077	0.876–1.324	0.481
Third quintile	1.085	0.869–1.355	0.472
Fourth quintile	1.205	0.960–1.512	0.108
Highest quintile	1.223	0.965–1.549	0.096
Type of health insurance			
National Health Insurance			
Medical aid	0.924	0.674–1.268	0.626
Number of chronic diseases			
None			
One	0.622***	0.522–0.741	< 0.001
Two or more	0.506***	0.407–0.628	< 0.001
Perceived health status	1.329***	1.200–1.472	< 0.001
Reason for choosing the facility			
Easy accessibility	7.580***	2.882–19.938	< 0.001
Kindness of medical staff	8.094***	3.024–21.665	< 0.001
Advanced technology and equipment	2.369	0.906–6.194	0.079
Reputation	0.808	0.306–2.132	0.666
Recommendations from acquaintances	3.389*	1.270–9.047	0.015
Lower cost of treatment	1.046	0.340–3.219	0.937
Physicians' attitudes toward patients			
Was he/she polite to you?	0.861	0.738–1.004	0.056
Did he/she explain to you in detail about exams, treatments, and procedures?	0.992	0.880–1.119	0.900
Did he/she see to it that you asked a question or expressed your concerns?	1.188**	1.054–1.339	0.005
Did he/she reflect your opinion well in the course of treatment?	1.127	0.998–1.273	0.053
Did he/she sympathize with your anxiety about your health?	0.936	0.842–1.041	0.225
Did he/she explain to you in detail about treatment plans and precautions?	0.939	0.829–1.064	0.325
Did you talk to your physician sufficiently?	1.054	0.944–1.178	0.347
Nurses' attitudes toward patients			
Was he/she polite to you?	0.956	0.823–1.111	0.558
Did he/she explain to you in detail and well about the treatment process?	1.148*	1.014–1.301	0.029
The service of the facility			
Was the facility comfortable to use?	0.808**	0.704–0.928	0.003
Were you satisfied with the administrative services?	0.914	0.814–1.026	0.126
Attitude about the health care system in Korea			
I trust the health care system in Korea.	0.842**	0.756–0.938	0.002
I am satisfied with the health care system in Korea.	1.041	0.932–1.163	0.479
The health care system in Korea needs to be reformed.	1.100*	1.021–1.186	0.013

OR = odds ratio, CI = confidence interval.

\* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$ , the Cox and Snell  $R^2$  and Nagelkerke  $R^2$  were 0.137 and 0.209 respectively.

met than those who chose clinics. Therefore, the fact that preference for hospitals more accurately reflects the patients' essential desires and the obvious preference for hospitals in those countries demonstrate that it is hard to control the desires of health care users, as long



**Table 4.** Logistic regression analysis of choosing clinics over hospitals for outpatient care: a subgroup analysis only for those without chronic disease and good self-perceived health

Characteristics	OR	95% CI	P value
Sex			
Male			
Female	1.362**	1.086–1.707	0.007
Age group, yr			
15–19			
20–29	0.348*	0.140–0.860	0.022
30–39	0.294**	0.119–0.728	0.008
40–49	0.245**	0.101–0.593	0.002
50–59	0.280**	0.118–0.664	0.004
≥ 60	0.213**	0.089–0.510	0.001
Education			
Primary education			
Secondary education	1.698	0.727–3.964	0.221
Tertiary education	1.734	0.714–4.208	0.224
Monthly household income			
Lowest quintile			
Second quintile	1.250	0.841–1.856	0.269
Third quintile	1.299	0.866–1.951	0.206
Fourth quintile	1.360	0.902–2.051	0.143
Highest quintile	1.377	0.900–2.109	0.141
Type of health insurance			
National Health Insurance			
Medical aid	2.574	0.808–8.202	0.110
Reason for choosing the facility			
Easy accessibility	22.061**	3.763–129.332	0.001
Kindness of medical staff	31.718***	5.231–192.311	< 0.001
Advanced technology and equipment	10.168*	1.746–59.213	0.010
Reputation	5.193	0.879–30.680	0.069
Recommendations from acquaintances	15.333**	2.557–91.948	0.003
Lower cost of treatment	5.416	0.715–41.037	0.102
Physician's attitude of the facility			
Was he/she polite to you?	0.825	0.636–1.071	0.149
Did he/she explain to you in detail about exams, treatments, and procedures?	0.910	0.745–1.111	0.354
Did he/she see to it that you asked a question or express your concerns?	1.199	0.980–1.468	0.078
Did he/she reflect your opinion well in the course of treatment?	1.179	0.961–1.446	0.115
Did he/she sympathize with your anxiety about your health?	1.014	0.853–1.205	0.877
Did he/she explain to you in detail about treatment plan and precautions?	0.785*	0.637–0.967	0.023
Did you talk to your physician sufficiently?	0.986	0.812–1.196	0.883
Nurse's attitude of the facility			
Was he/she polite to you?	1.224	0.952–1.574	0.114
Did he/she explain to you in detail and well about treatment process?	1.247*	1.017–1.530	0.034
The service of the facility			
Was the facility comfortable to use?	0.805	0.636–1.019	0.072
Were you satisfied with the administrative services?	0.817*	0.671–0.996	0.046
Attitude about the health care system in Korea			
I trust the health care system in Korea.	0.860	0.718–1.030	0.101
I am satisfied with the health care system in Korea.	0.974	0.808–1.175	0.786
The health care system in Korea needs to be reformed	1.183**	1.044–1.341	0.009

OR = odds ratio, CI = confidence interval.

\* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$ , the Cox and Snell  $R^2$  and Nagelkerke  $R^2$  were 0.063 and 0.112 respectively.

as the objects of their desires are within reach. In other words, measures to restrict access to higher levels of health care facilities would fail as long as those facilities remain accessible and affordable.

The clear exhibition of preference for hospitals in Korea is also related to other structural characteristics of the Korean health care system. First, apart from measures for gatekeeping,



there is no clearly defined group of physicians in Korea which accurately corresponds to general practitioner in terms of qualification and role as a gatekeeper.<sup>26</sup> Primary care is scattered among various types of physicians in terms of specialty and practice at various types of health care facilities. Although the first contact with a physician is loosely assigned to clinics by law, a considerable portion of the physicians in clinics, about 92%, are already specialists.<sup>27</sup> Furthermore, in the ensuing course of disease management, chronic and minor diseases are commonly treated by specialists belonging to hospitals.

Second, the strong position of hospitals in primary care in Korea is not only due to the patients' preference but also to the dependence of hospitals on outpatient care, which is related to how the modern health care system was developed in Korea. The health care system in Korea has developed within a short period with no pre-established, strictly divided role of hospitals and clinics, and development of private clinics into hospitals was common. In a haphazard increase in health care facilities, the roles of those facilities remained mixed. Given the blurry division of roles between hospitals and clinics, outpatient care has continued to be a main source of hospital expenditure, accounting for about 36% of total hospital expenditure during the past decade.<sup>17</sup> Furthermore, hospitals in Korea are highly competitive with more resources compared to clinics, and many large hospitals promote outpatient care by facilitating patients' obtaining of referral slips from nearby clinics. As a result, despite the measures to reduce outpatient visits to hospitals, the proportion of hospitals in outpatient care is on the increase. The proportion of large-sized hospitals in outpatient care increased by 76.4% in the number of visits and 18.9% in expenditure between 2011 and 2021, which is in sharp contrast with an 8.2% decrease and a 2.8% increase, respectively, in the proportion of clinics in outpatient care during the same period. The increase in the expenditure for outpatient care was the highest among large-sized hospitals.<sup>17</sup>

This structural background, which makes it difficult to establish primary care as a unitary entity in the health care system, and its unintended combination with patients' preference for better-equipped facilities suggest that establishing gatekeeping in Korea would not be possible with measures which modify out-of-pocket costs as proved during the last decades. Under the social health insurance system in Korea, where the price of health care services is at quite an affordable level, which is about the lowest among developed countries,<sup>28,29</sup> raising the coinsurance rate would not be sufficient to turn patients away from a higher level of health care. As long as the desire exists and its realization is possible, it is not likely for patients to change their behavior voluntarily.

Using higher-level health care facilities for primary care concerns two issues. The first is the impact on total health care expenditure. Usage of higher-level health care facilities costs more, which is an overuse of resources and, possibly, a waste of resources. In most health care systems, where the cost of health care is borne not solely by an individual but also by a common and limited pool, overuse of resources inevitably leads to the underuse of other necessary or beneficial services and compromises population health. Moreover, using higher-level health care facilities for primary care may not result in improved health, considering the possible unnecessary use of services and comparative lack of continuity and comprehensiveness of care.

It is a weakness of this study that the purpose of the outpatient visit was not specified, which has left room for determining whether the reason for the visit to each type of facility was for primary care. However, given our measures to adjust the health conditions of the

study subjects, our findings can be recognized as a reliable account of the factors regarding patients' choice of facility. In addition, considering that the preference for higher level health care facilities is based on the desire of health care users and that addressing the preference would depend on understanding how desire can be expressed and controlled, an in-depth analysis of the relationship between the desire and behavior is necessary. Examining how patient behavior changes under various conditions, which restrict their choice, would provide a basis for such understanding, which should be expected in future studies. However, given the various attempts of the Korean government to restrict hospital use for primary care over recent years, the presentation of the current situation would be considered as brief but clear evidence which shows that measures to induce a voluntary change of behavior would be futile as long as the current health care system and patient desire remain.

This study demonstrates that the preference for hospitals over clinics is mainly based on desire rather than justifiable medical conditions. The desire is not likely to be controlled with measures intended to induce a voluntary change of behavior as shown in the failure of the policies hitherto attempted. The government has two options: not losing the favor of those who desire the use of higher-level health care facilities or improving the welfare of those who could benefit from unspent expenditures and resources. The first is visible and present, but the second is invisible and belongs to the future. The legitimacy of these two should be seriously measured, and decisive measures need to be taken for the cause of more health for more people.

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