

# Hospital Staff and Patient Recognition Toward Opening of Medical Services Market, and Factors in Selecting a Foreign Hospital

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**Purpose:** The objectives of this study are to compare the hospital employees' and patients' recognition and attitudes toward the opening of the medical services market, to analyze the differences between hospital employees and patients on the factors in selecting a foreign hospital. **Materials and Methods:** This study collected and analyzed data using systematic questionnaires that were self-administered by employees and outpatients to compare their recognition of the opening of the medical services market and the factors involved in selecting a foreign hospital. **Results:** Employees exhibited a higher level of recognition than the patients. Reasons for agreement were to ensure the right of selection for both the employees and patients. Reasons for disagreement, however, were split between the two groups: degraded public characteristics of medical services, for employees; and expensive medical fees, for patients. The most urgent task to prepare for the opening of the medical services market is the improvement of the diagnosis and treatment technologies for employees, and improvement of the services provided by hospital staff for patients. **Conclusion:** Korean hospitals shall need to improve their diagnosis and treatment technologies and provide medical services of high quality in order to compete with foreign hospitals.

**Key Words:** Employees, medical services, opening market, recognition, patients.

## INTRODUCTION

Our society is rapidly changing and, conse-

quently, international, let alone domestic competition, in every field is unavoidable-the medical services field is no exception.<sup>1</sup> Since the advent of the World Trade Organization (WTO), the international trend is for the establishment of a free competition system based on market liberalization in all fields: countries around the world discuss and sign various treaties to remove trade barriers and expedite globalization.

The trend of globalization also deeply impacts the health and medical services industry. The field, despite its public and non-commercial characteristics, appears to be significantly affected by globalization.<sup>2</sup>

At this point, the opening of the medical services market is an inevitable reality of the medical society. So far, many studies have been conducted on the opening, primarily for specialists.<sup>3-7</sup> Few surveys, however, have been conducted on hospital employees, who are to directly respond to the opening once the market is actually liberalized and foreign hospitals are open in Korea, and patients, who may use the foreign hospitals. The entry of foreign hospitals into Korea's medical services market is expected to cause severe damage to Korean hospitals that have been occupied with various restrictions. It is necessary, therefore, to develop countermeasures for Korean hospitals by surveying the hospital employees and patients' recognition of the opening of the medical services market, and their individual factors involved in selecting a hospital.

The objectives of this study are to compare the

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hospital employees' and patients' recognition and attitudes toward the opening of the medical services market, to analyze the differences between hospital employees and patients on the factors in selecting a foreign hospital; and to develop countermeasures for Korean hospitals in response to the opening of the medical services market.

## MATERIALS AND METHODS

The study subject was a university hospital with approximately 2,000 outpatients (hereinafter "patients") per day, 600 beds, and 1,100 employees (hereinafter "employees") which included all regular staff except for contractors and temporary workers.

In developing a survey tool, this study modified, supplemented, and systemized, to the features of this study, the questionnaire used by Y. H. Jung, D. S. Park, H. J. Lee, and Y. R. Yun et al. to evaluate the recognition, attitude, and countermeasures toward the opening of the medical services market. The Cronbach's alpha coefficient was 0.79.<sup>6,8-10</sup>

The preliminary survey was performed from October 6-8, 2005 and the main survey from October 13-20, 2005, after modification and supplementation, utilizing the self-administration method. Four hundred and fifty questionnaires were collected from employees out of 470 distributed and 362 from patients out of 400. In total, 812 questionnaires were collected out of the 870 distributed (total return rate: 94%).

SPSS WIN 12.0 was used to analyze the data by a frequency test, t-test, and chi-square test.

## RESULTS

### General characteristics of respondents

There were significant statistical differences among the respondents - a total of 812 composed of 450 employees (55.4%) and 362 patients (44.6%) - for their gender, age, income, and educational background. The most common occupations for employees and patients were those of nurses

(51.3%) and housewives (25.4%), respectively (Table 1).

### Recognition of medical services market opening

Employees' recognition score for the opening of the medical services market was 3.35, higher than that of patients by a statistically significant degree. In regard to the phenomena resulting from the market opening, the employees' score for "the increase in the medical cost" was 3.79, also higher than that of patients by a statistically significant degree. Among the eight options, the response for "the improvement of the domestic medical services" was the highest for both employees (4.04) and patients (3.98), which demonstrates their high demand for medical services (Table 2).

### Attitude toward medical services market opening

In regard to attitude toward the opening of the medical services market, 72.2% of employees are in agreement with the opening, more than the 63.5% of patients, by a statistically significant degree (Table 3).

This study examined the reasons for supporting or objecting to the opening of the medical services market, by asking supporters and objectors to select three reasons in order of their priority and identifying the most frequently selected reason for each priority (first, second, and third most common) (Table 4 and 5).

Reasons for agreement were, in order of priority, to ensure the right of selection, the doctors' authority, and medical equipment, for both the employees and patients (Table 4). Reasons for disagreement, meanwhile, differed between the employees and patients. In order of priority, they included degraded public characteristics of medical services, decreased competitiveness of the Korean medical services industry, and possible commercialization of medical services for employees. For patients, they were expensive medical fees, capital outflow, and the possible commercialization of medical services (Table 5). In regard to the attitude toward pending tasks for the opening of the medical services market, patients' score for the "consolidation of international com-

**Table 1.** General Characteristics of Respondents

Sector		No. of staff (%)	No. of patient (%)	Total No. (%)	$\chi^2$
Sex	Male	145 (32.2)	167 (46.1)	312 (38.4)	15.8*
	Female	305 (67.8)	195 (53.9)	500 (61.8)	
Age	Under 34	360 (80.0)	124 (34.3)	484 (59.6)	204.7*
	35 - 49	83 (18.4)	146 (40.3)	229 (28.2)	
	50 - 65	2 (0.4)	71 (19.6)	73 (9.0)	
	Above 65	1 (0.2)	17 (4.7)	18 (2.2)	
	No answer	4 (1.0)	4 (1.1)	8 (1.0)	
Educational background	Middle school or below		22 (6.1)	22 (2.7)	66.4*
	High school		148 (40.9)	148 (18.2)	
	College	404 (89.3)	171 (47.2)	575 (70.8)	
	Graduate school or above	46 (10.2)	21 (5.8)	67 (8.3)	
Monthly income (unit: US dollars)	Less than 1999	19 (4.2)	41 (11.3)	60 (7.4)	33.1*
	2000-3999	157 (34.9)	192 (53.0)	349 (43.0)	
	Greater than 4000	203 (45.1)	118 (32.6)	321 (39.5)	
	No answer	71 (15.8)	11 (3.1)	82 (10.1)	
Occupation	Specialized technology		44 (12.2)		
	Service		23 (6.4)		
	Manufacturing		10 (2.8)		
	Business		73 (20.2)		
	Administration		76 (21.0)		
	Agriculture/Fishers/ Livestock farming/Mining		7 (1.9)		
	Housewife		92 (25.4)		
	Others		37 (10.2)		
Department	Administration	56 (12.4)			
	Treatment support	81 (18.0)			
	Treatment	79 (17.6)			
	Nursing	223 (49.6)			
	Others	11 (2.4)			
Type of occupation	Administrative	61 (13.6)			
	Medical technician	75 (16.7)			
	Doctor	79 (17.6)			
	Nurse	231 (51.3)			
	Others	4 (0.8)			
Position	Section chief	7 (1.6)			
	Subsection chief	50 (11.1)			
	Clerk	314 (69.8)			
	Medical specialist	19 (4.2)			
	Resident	42 (9.3)			
	Intern	18 (4.0)			
Total experience (yrs)	Less than 5	239 (53.1)			
	6 - 10	97 (21.9)			
	11 - 15	49 (10.9)			
	More than 16	21 (4.7)			
	No answer	8 (1.8)			
Total		450 (100.0)	362 (100.0)	812 (100.0)	

\* $p < 0.05$ .

**Table 2.** Recognition Toward Opening of Medical Services Market

Sector	Staff (Mean $\pm$ SD)	Patient (Mean $\pm$ SD)	t
Recognition level	3.35 $\pm$ 0.81	2.96 $\pm$ 1.08	0.64*
Information			
1. TV, Newspaper	3.62 $\pm$ 0.81	3.58 $\pm$ 0.90	-0.65
2. Co-worker	3.27 $\pm$ 0.80	2.97 $\pm$ 1.03	-4.23*
3. Medical journal	2.97 $\pm$ 0.90	2.44 $\pm$ 1.08	-6.38*
4. Scientific journal	2.86 $\pm$ 0.87	2.37 $\pm$ 1.05	-6.07*
5. Seminar, scientific seminar	2.93 $\pm$ 0.94	2.45 $\pm$ 1.14	-5.61*
Phenomena to result from the opening of medical services			
1. Public medical fee increase	3.79 $\pm$ 0.84	3.50 $\pm$ 0.92	-4.57*
2. Encroachment of domestic medical services market	3.58 $\pm$ 0.83	3.48 $\pm$ 0.88	-1.75
3. Shrinkage of domestic medical society	3.46 $\pm$ 0.90	3.37 $\pm$ 0.96	-1.31
4. Loss of traditional medical philosophy	2.79 $\pm$ 0.91	2.89 $\pm$ 0.89	-1.65
5. Collapse of public characteristics of medical services	3.09 $\pm$ 0.94	2.98 $\pm$ 0.92	-1.74
6. Improvement of domestic medical technology	3.91 $\pm$ 0.74	3.87 $\pm$ 0.74	-0.75
7. Improvement of domestic medical services	4.04 $\pm$ 0.72	3.98 $\pm$ 0.75	-1.11
8. Advancement of domestic medical services industry	3.46 $\pm$ 0.89	3.48 $\pm$ 0.82	0.25

\* $p < 0.05$ , 5-point score.

Higher score indicates greater recognition.

**Table 3.** Attitude toward Medical Services Market Opening

Sector	No. of staff (%)	No. of patient (%)	Total No. (%)	$\chi^2$
Agree	325 (72.2)	230 (63.5)	555 (68.3)	11.1*
Disagree	60 (13.6)	55 (15.2)	115 (14.2)	
Not sure	57 (12.7)	76 (21.0)	133 (16.4)	
No answer	8 (1.0)	1 (0.3)	9 (1.1)	
Total	450 (100.0)	362 (100.0)	812 (100.0)	

\* $p < 0.05$ .

petitiveness for health and medical services" was 3.89, higher than that of employees by a statistically significant degree, and the employees' score for the "introduction of an alternative civil insurance system" was 3.44, higher than that of patients by a statistically significant degree (Table 6).

#### Top priorities for a response to the opening of the medical services market

The most urgent task for Korean hospitals in response to the opening of the medical services market was the "improvement of diagnosis and treatment technologies" according to employees

and the "improvement of the services provided by hospital staff" for patients (Table 7).

## DISCUSSION

### Discussion of study method

This study collected and analyzed data using systematic questionnaires self-administered by the employees and outpatients of one university hospital located in Gyeonggi Province, Korea, to compare their recognition of the opening of the medical services market and the their chosen

**Table 4.** Reasons for Agreement to the Opening of the Medical Services Market

Reasons for agreement	No. of staff (%)				No. of patient (%)			
	First	Second	Third	Total	First	Second	Third	Total
Right of selection for medical services	202 (62.2)	45 (14.8)	21 (6.5)	268 (27.5)	124 (53.9)	14 (6.1)	22 (9.6)	160 (23.2)
Doctors' authority from respondent's viewpoint	57 (17.5)	122 (37.5)	35 (10.8)	214 (21.9)	58 (25.2)	79 (34.3)	14 (6.1)	151 (21.9)
Medical equipment	22 (6.8)	47 (14.5)	122 (37.5)	191 (19.6)	17 (7.4)	27 (11.8)	88 (38.1)	131 (19.0)
Reputation and reliability of hospital	20 (6.2)	40 (12.3)	49 (15.1)	109 (11.2)	12 (5.2)	27 (11.8)	32 (13.9)	71 (10.3)
Convenience of treatment procedure	7 (2.2)	22 (6.8)	29 (8.9)	58 (5.9)	3 (1.3)	21 (9.1)	27 (11.7)	51 (7.4)
Doctors' explanation on medical treatment	5 (1.5)	16 (4.9)	18 (5.5)	39 (4.0)	11 (4.8)	33 (14.3)	10 (4.4)	54 (7.8)
Convenience facilities	1 (0.3)	9 (2.8)	18 (5.5)	28 (2.9)	1 (0.4)	4 (1.7)	14 (6.1)	19 (2.8)
Kindness of staff	2 (0.6)	12 (3.7)	13 (4.0)	27 (2.8)	1 (0.4)	25 (10.9)	17 (7.4)	43 (6.3)
Others	7 (2.2)	2 (0.6)	7 (2.2)	16 (1.6)	3 (1.3)	0 (0.0)	5 (2.2)	8 (1.2)
No answer	2 (0.6)	10 (3.1)	13 (4.0)	25 (2.6)	0 (0.0)	0 (0.0)	1 (0.4)	1 (0.1)
Total	325 (100.0)	325 (100.0)	325 (100.0)	975 (100.0)	230 (100.0)	230 (100.0)	230 (100.0)	690 (100.0)

$\chi^2(p)$  of first: 12.0 (0.15).

**Table 5.** Reasons for Disagreement to the Opening of the Medical Services Market

Reasons for disagreement	No. of staff (%)				No. of patient (%)			
	First	Second	Third	Total	First	Second	Third	Total
Decreased competitiveness	12 (20.0)	15 (25.0)	6 (10.0)	33 (18.3)	1 (1.8)	5 (9.1)	6 (10.9)	12 (7.3)
Premature timing	6 (10.0)	10 (16.7)	12 (20.0)	28 (15.6)	4 (7.3)	7 (12.7)	4 (7.3)	15 (9.1)
Expensive medical fees	10 (16.7)	3 (5.0)	14 (23.3)	27 (15.00)	27 (49.1)	5 (9.1)	6 (10.9)	38 (23.0)
Commercialization of medical services	5 (8.3)	7 (11.7)	15 (25.0)	27 (15.0)	2 (3.6)	4 (7.3)	12 (21.8)	18 (10.9)
Degraded public characteristics	13 (21.7)	10 (16.7)	1 (1.7)	24 (13.3)	7 (12.7)	7 (12.7)	9 (16.4)	23 (13.9)
Capital outflow	12 (20.0)	5 (8.3)	4 (6.7)	21 (11.7)	11 (20.0)	15 (27.3)	6 (10.9)	32 (19.4)
Pressure from developed countries	2 (3.3)	7 (11.7)	6 (10.0)	15 (8.3)	1 (1.8)	10 (18.2)	4 (7.3)	15 (9.1)
Disapproval of foreign doctors	0 (0.0)	3 (5.0)	2 (3.3)	5 (2.7)	1 (1.8)	1 (1.8)	5 (9.1)	7 (4.2)
Others	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (3.6)	2 (1.2)
No answer	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.8)	1 (1.8)	1 (1.8)	1 (1.8)
Total	60 (100.0)	60 (100.0)	60 (100.0)	180 (100.0)	55 (100.0)	55 (100.0)	55 (100.0)	165 (100.0)

$\chi^2(p)$  of first: 27.2 (0.000).

**Table 6.** Attitude toward Pending Tasks Regarding the Opening of Medical Services Market

Pending tasks	Staff (Mean ± SD)	Patient (Mean ± SD)	t
Consolidation of international competitiveness for health and medical services	3.78 ± 0.73	3.89 ± 0.73	2.07*
Medical services of high quality	3.85 ± 0.75	3.84 ± 0.78	- 0.75
Admittance of profit-making corporations	3.25 ± 0.90	3.18 ± 0.92	- 1.05
Introduction of alternative civil insurance system	3.44 ± 0.95	3.19 ± 0.97	- 3.66*

\* $p < 0.05$ , 5-point score.

Higher score indicates a more positive attitude.

**Table 7.** Top Priorities for Response to Opening of the Medical Services Market

Sector	No. of staff (%)	No. of patient (%)	$\chi^2$
Improvement of diagnosis and treatment technologies	145 (32.2)	94 (26.0)	
Improvement of the services provided by the hospital staff	128 (28.5)	111 (30.7)	
Resolution of discomfort for hospital stays	53 (11.8)	52 (14.4)	
Improvement of foreign language capability	40 (8.9)	7 (1.9)	
Improvement of medical equipment	28 (6.2)	38 (10.5)	33.1*
Improvement of procedure for medical treatment	24 (5.3)	38 (10.5)	
Consolidation of convenience facilities	14 (3.1)	16 (4.4)	
No answer	18 (4.0)	6 (1.7)	
Total	450 (100.0)	362 (100.0)	

\* $p < 0.05$ .

factors in selecting a foreign hospital.

The study has some limitations, however. First, it is difficult to generalize the results since the study subject was confined to one university hospital in Gyeonggi Province. Also, it is impracticable to compare the two groups for their recognition of the medical services market opening and the tasks to respond thereto as the employees and patients have differences in general characteristics (such as gender, age, income, and educational background).

This study, however, has its significance in that it directly surveyed hospital employees and patients and compared their differences, while previous studies primarily aimed to prepare concession requests or proposals regarding the opening of the medical services market or to provide countermeasures by surveying legal issues or relevant literature.

## Discussion of study results

During the planning stage, the study objective was to develop countermeasures based on the expectation that more patients than employees would agree to the opening of the medical services market. However, the results were the opposite: more employees than patients agreed to the opening. This appears to be related to the employees' high level of recognition regarding the opening of the medical services market.

The employees showed a higher recognition level for the opening. In regard to the phenomena resulting from the opening of the medical services market, the scores for "improvement of the domestic medical services," out of the eight options, were the highest for both employees (4.04) and patients (3.98). This result is similar to the result of the survey by H. J. Lee for the scope and

method of the market opening, where 77.4%-highest among the eight options - of the respondents agreed that the domestic medical services would be improved.<sup>9</sup>

Of employees, 72.2% agreed to the opening while 63.5% of patients did. The patients seem not to have accurately expressed their opinion due to their lack of knowledge in that 21.0% of the patients answered that they do not know the issue well while 12.7% of employees did not. The employees' and patients' percentages of agreement are higher than 56.5%, the percentage of patient agreement to the opening of the medical services market found in the study by Y. R. Yun,<sup>10</sup> however agreement was lower than 76.4%, the percentage of agreement to the allowance of foreign hospitals in Korea found in the study by E. Y. Yu.<sup>11</sup> The survey by H. J. Lee on the scope and method of the market opening showed a similar result to this study in that a high percentage of journalists (77.3%), scholars (73.6%), and medical service providers (63.3%) agreed to the opening. The survey result showed a difference, however, in that as low as 40% of civil groups agreed to the opening while 63.7% of the patients did in this study.<sup>9</sup>

The first priority reason for agreeing to the opening was to ensure the right of selection, for both employees (62.5%) and patients (53.9%). This result is similar to that of the study by Y. R. Yun.<sup>10</sup>

Employees and patients showed differences in their reasons for objecting. For employees, it was degraded public characteristics of medical services, followed by decreased competitiveness, and the possible commercialization of medical services. This result partially corresponds to that of the survey by H. J. Lee<sup>9</sup> for the scope and method of the market opening, where the reasons for objection were, first, degraded public characteristics of medical services, followed by premature opening, and decreased competitiveness of the Korean medical services industry. For patients, on the other hand, the reasons for objection were expensive medical fees, followed by capital outflow, and the commercialization of medical services. These results seem to reflect the employees' recognition for the public characteristics and the importance of medical services, and the patients' position to take medical treat-

ment with the burden of payment.

In regard to pending issues for the opening of the medical services market, the patients' score for the "consolidation of international competitiveness for health and medical services" was 3.89, higher than that of employees (3.78) by a statistically significant degree. For the possibility of enjoying medical services of high quality, the score was relatively high for both employees (3.85) and patients (3.84) without any statistically significant difference between the groups. This result is similar with that of the study by Y. H. Jung et al., where specialist groups, regardless of their majors, largely agreed to the opinion that the opening of the medical services market will consolidate the competitiveness of the Korean health and medical services industry, and where they, except those who studied pharmacy and medical science, largely agreed that the opening will allow high quality medical services to be provided. The results seem to reflect the nation's opinion on medical services. The employees' score for the necessity of an alternative insurance system was 3.44, higher than that of the patients (3.19) by a statistically significant degree. This result is similar to that of the study by Y. H. Jung et al. that showed significant differences among areas of expertise.<sup>6</sup>

*Key results of this study are as follows:*

1. Employees demonstrated a higher level of recognition than patients regarding the opening of the medical services market.
2. Of employees, 72.2% agreed to the opening, higher than the 63.5% of patients. Reasons for agreement were first to ensure the right of selection, followed by the doctors' authority, and medical equipment, for both the employees and patients. Reasons for disagreement, however, were different between the two groups. In order of priority, for employees, degraded public characteristics of medical services, decreased competitiveness, and the commercialization of medical services; and, for patients, expensive medical fees, capital outflow, and the commercialization of medical services.
3. In regard to pending issues for the opening of the medical services market, patients showed

a higher score for the "consolidation of the international competitiveness of the health and medical services", while employees showed a higher score for the "necessity to introduce an alternative insurance system."

4. The most urgent task to prepare for the opening of the medical services market was the improvement of the diagnosis and treatment technologies, for employees, and improvement of the services provided by hospital staff, for patients.

In conclusion, Korean hospitals need to improve their diagnosis and treatment technologies and to provide medical services of high quality, to compete with foreign hospitals with enhanced international competitiveness for the health and medical services.

This study suggests that local hospitals should establish plans for their management based on the study by assessing if it is related to the employees' intention to transfer to foreign hospitals that a greater percentage of employees than patients agreed to the opening, although it appears to be related to their high level of recognition toward the issue.

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