

A Survey on the Status of Employees of Traditional Korean Medicine Hospitals

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Objectives: To undertake manpower-related improvements based on a comparison between specialists in the traditional Korean medicine hospitals(TKMH) and their counterparts in Western medicine

Methods: A survey of the TKMH based on questionnaire sheets dispatched to them by mail(57 of 142 responded) in the June December, 2008 period, and on almanac statistics provided by the Ministry for Health, Welfare and Family Affairs of Korean Government.

Results: Overall, the workforce engaged in the traditional Korean medicine hospitals comprises traditional Korean medical doctors(28%), nurses(23%), administrative staffs(19%), assistant nurses(9%), medical record keepers(2%), nutritionists(2%), herbal pharmacists(1%), and others(16%). Each hospital has 16.5 traditional Korean medical doctors on average, which can be broken down into 6.2 specialists, 1.3 generalists, and 9.3 residents/interns. Only 10.7% of whole of traditional Korean medical doctors work in the hospitals, compared to 54.5% of Western medicine doctors. The ratio of traditional Korean medical doctors to the entirety of employees in the TKMH is 2.5 times higher than their Western medicine counterparts, while the ratio of medical technicians to the entire employees in the TKMH is 20 times lower than in the Western medicine counterparts.

Conclusions: To provide more qualified medical service in the TKMH, they will be required to increase the proportion of non medical doctor employees, like Western medicine counterparts.

Key Words : Traditional Korean medicine hospital, traditional Korean medical doctor, herbal pharmacists, employee

Introduction

Traditional Korean medicine hospitals(TKMH) are medical service institutions at which traditional Korean medical doctors provide medical services mainly to inpatients as well as outpatients. They should be equipped with thirty or more beds according the Medical Service Act¹⁾. They should also satisfy the requirements provided under the Ministry of Health and Welfare Ordinance, including those items concerning the standards and specifications

of facilities based on the types of medical service institutions; the standards of the safety control facilities; the operational standards of medical service institutions and medical care hospitals; the standards concerning the installation or operation of high-priced medical equipment; the quota standards for medical service workers; and the standards concerning food service administration²⁾ based on the types of medical service institutions.

This study surveyed the distribution of the workforce at TKMH as of 2008 by reviewing the

• Received : 11 May 2012

• Revised : 4 June 2012

• Accepted : 7 June 2012

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statistics on human resources working in different job categories at TKMH based on the above standards, in addition to a survey concerning the standards. This study was designed to explore ways of improving the human resources structure of TKMH by comparing the Ministry's statistics with those of Western medicine hospitals in order to identify differences.

Methods

From 1st June to 9th December 2008, we conducted a survey at the 57 TKMH that responded out of the total of 142 to which the questionnaire was delivery bymail(i.e., 40.1% responded). Twenty-four of the responders were attached to traditional Korean medical schools. The respondent hospitals had the numbers of beds shown as follows(Table 1).

Results

1. Overall status of human resources

Personnel who work at the TKMH included in the survey were divided into medical doctors and other

personnel. Medical doctors were further categorized into specialists, general and trainee practitioners or doctors. Other personnel were further categorized into nurses, herbalists, nursing assistants, record keepers, nutritionists, and administrative or other workers.

1) Distribution of TKMH by the number of workforce

TKMH which responded to the survey were broken down as follows based on the number of employees: 17 hospitals(30%) had 24 or fewer employees; 12 hospitals(21%) had 25 to 49 employees; 19 hospitals(33%) had 50 to 99 employees; 4 hospitals(7%) had 100 to 149 employees; and 5 hospitals(9%) had 150 or more employees. The average number of employees was 62.3 at the surveyed TKMH (Table 2).

2) Distribution of traditional Korean medical doctors and other workforce

The total of 3,379 employees at the 57 TKMH surveyed was broken down into 938 medical doctors (28%) and 2,441 non medical doctor employees (72%)(Table 3).

Table 1. The Number of Beds in Traditional Korean Medicine Hospitals

No. of beds	≥300	299 - 200	199 - 100	99 - 50	49 - 30	Total
No. of hospitals	1	1	6	37	12	57

Table 2. Numbers of Workforce in Traditional Korean Medicine Hospitals

No. of workforce	No. of hospital	Ratio (%)
≤24	17	30
25 - 49	12	21
50 - 99	19	33
100 - 149	4	7
≥150	5	9
Total	57	100

Table 3. Distribution of Workforce in Traditional Korean Medicine Hospitals

Groups	No. of persons	Ratio (%)
Medical doctors	938	28
Non medical doctor employees	2,441	72
Total	3,379	100

2. Status of traditional Korean medical doctors

Traditional Korean medical doctors in the hospitals were categorized into specialists, and general and trainee practitioners including interns and residents. Trainee doctors represent 55%(n=518) of all the doctors who work at the TKMH surveyed. These are followed by specialists at 37%(n=348) and general practitioners(GPs) at 8%(n=72). The specialists were further broken down into male at 82%(n=286) and female at 18%(n=62). The percentage of male doctors was thus far greater than that of female ones. Likewise, GPs were broken down into male GPs at 82%(n=59) and female GPs at 18%(n=13). Thus, the percentage of male doctors again appears to be far greater than that of female ones. In contrast, trainee doctors were broken down into male trainees at 57%(n=297) and female trainees at 43%(n=221), thus showing similar proportion of the two groups(Table 4).

1) Distribution of specialists and general and trainee practitioners

By examination of the distribution of specialists in the hospitals of different sizes, the largest number, i.e., 22 hospitals(39%), were found to have three specialists or fewer; 18 hospitals(32%) had 4 to 7 specialists; 13 hospitals(23%) had 8 to 11 specialists; and 4 hospitals(7%) had 12 or more specialists. It was revealed that an average of 6.2 specialists work at TKMH. Hospitals that have 3 or fewer general practitioners made up the largest group, i.e., 51 hospitals(89%), while 4 hospitals(7%) had 4 to 7 general practitioners and 2 hospitals(4%) had 8 to

11, showing that an average of 1.3 general practitioners work at TKMH. Hospitals with 3 or fewer trainee doctors accounted for nearly half of the respondents, i.e., 26 hospitals(46%); 6 hospitals(10%) had 4 to 7 trainee doctors; 8 hospitals (14%) had 8 to 11; 17 hospitals(30%) had 20 or more. It was revealed that an average of 9.3 trainee doctors work in the TKMH (Table 5).

3. Status of not medical employees

Non medical doctor employees were further categorized into nurses, herbalists, nursing assistants, record keepers, nutritionists, and administrative workers. Nurses represented the greatest number, accounting for 32%(n=782) of all non medical doctor workers in TKMH surveyed, while administrative workers accounted for 26%(n=646), nursing assistants 13%(n=320), record keepers 3%(n=68), nutritionists 2%(n=57), and herbalists 1%(n=31) (Table 6).

1) Distribution of nurses and nursing assistants

Hospitals that had 9 or fewer nurses made up the largest group, i.e., 26 hospitals(46%), while 19 hospitals(33%) had 10 to 19 nurses; 7 hospitals(12%) had 20 to 29; 3 hospitals(5%) 30 to 39; and 4 hospitals(7%) had 40 or more nurses. It was revealed that an average of 13.8 nurses work at TKMH.

Hospitals with 4 to 7 nursing assistants represented the largest group, i.e., 25 hospitals(44%), followed by 20 hospitals(35%) with 3 or fewer nursing assistants; 6 hospitals(11%) with 8 to 11; 5 hospitals (9%) with 12 to 15; and 1 hospital(2%) with 16 or more. It was revealed that an average of 5.7 nursing

Table 4. Distribution of Medical Doctors in Traditional Korean Medicine Hospitals

Groups	Total	Ratio (%)	Male	Ratio (%)	Female	Ratio (%)
Specialists	348	37	286	82	62	18
General practitioners	72	8	59	82	13	18
Trainee doctors	518	55	297	57	221	74
Total	938	100	642	100	296	100

Table 5. Distribution of Specialists and Generalists and Trainee Doctors in Traditional Korean Medicine Hospitals

No. of specialists	No. of hospitals	Ratio (%)
≤3	22	39
4 - 7	18	32
8 - 11	13	23
≥12	4	7
Total	57	100
No. of generalists	No. of hospital	Ratio (%)
≤3	51	89
4 - 7	4	7
8 - 11	2	4
≥12	0	0
Total	57	100
No. of trainee doctors	No. of hospitals	Ratio (%)
≤3	26	46
4 - 7	6	10
8 - 11	8	14
≥12	17	30
Total	57	100

Table 6. Distribution of Non medical doctor Workers in Traditional Korean Medicine Hospitals

Groups	No. of non medical doctor workers	Ratio (%)
Nurses	782	32
Administrative workers	646	26
Nursing assistants	320	13
Record keepers	68	3
Nutritionists	57	2
Herbalists	31	1
Other workers	537	22
Total	938	100

assistants work at TKMH(Table 7).

2) Distribution of herbalists, recordkeepers and nutritionists

Forty hospitals(70%) had no herbalist at all, whereas 15 hospitals(26%) had 1 to 3 herbalists, and 2 hospitals(4%) had 4 or more herbalists. It was revealed that an average of 0.6 herbalists work at TKMH. Twenty-one hospitals(37%) had no record keeper at all, while 29 hospitals(51%) had 1 record keeper, and 7 hospitals(12%) had 2 or more. It was revealed that an average of 1.2 record keepers work at traditional medicine hospitals. Hospitals that had 1

nutritionist made up the largest group, i.e., 26 hospitals(46%), followed by 17 hospitals(30%) with no nutritionist, 10 hospitals(18%) with 2, and 4 hospitals(7%) with 3. It was revealed that an average of 1.0 nutritionists work in the TKMH(Table 8).

3) Distribution of administrative workers

Hospitals with 9 or fewer administrative workers represented the largest group at 39 hospitals(63%), followed by 9 hospitals(16%) with 10 to 19 administrative workers, 4 hospitals(7%) with 20 to 29, and 5 hospitals(9%) with 30 or more. It was revealed that an average of 13.4 administrative workers work

Table 7. Distribution of Nurses and Nursing Assistants in Traditional Korean Medicine Hospitals

No. of nurses	No. of hospitals	Ratio (%)
≤9	26	46
10 - 19	19	33
20 - 29	7	12
30 - 39	3	5
≥40	2	4
Total	57	100
No. of nursing assistants	No. of hospitals	Ratio (%)
≤3	20	35
4 - 7	25	44
8 - 11	6	11
12 - 15	5	9
≥16	1	2
Total	57	100

Table 8. Distribution of Herbalists and Record Keepers and Nutritionists in Traditional Korean Medicine Hospitals

No. of herbalists	No. of hospitals	Ratio (%)
0	40	70
1 - 3	15	26
≥4	2	4
Total	57	100
No. of record keepers	No. of hospitals	Ratio (%)
0	21	37
1	29	51
≥2	7	12
Total	57	100
No. of nutritionists	No. of hospitals	Ratio (%)
0	17	30
1	26	46
2	10	18
3	4	7
Total	57	100

at TKMH(Table 9).

Discussion

TKMH are medical service institutions at which traditional Korean medical doctors provide medical services mainly to inpatients as well as outpatients. They should have thirty or more beds according to the Medical Service Act. They should also satisfy the requirements provided for different types of

medical institutions, including the standards for facilities and high-priced medical equipment, and the quota of medical service workers^{1,2)}. Therefore, TKMH should comply with the various statutes and regulations pertaining to their operation. In particular, they should adhere to the standards concerning the quota of medical service workers based on the types of medical service institutions.

According to Article 38(Quota of medical service workers) of the Rules for the Enforcement of the

Table 9. Distribution of Administrative Workers in Traditional Korean Medicine Hospitals

No. of administrative workers	No. of hospitals	Ratio (%)
≤9	39	63
10 - 19	9	16
20 - 19	4	7
≥30	5	9
Total	57	100

Medical Service Act and Annex 5 under Article 38, ① the standard quota of medical service workers based on the types of medical service institutions under Article 36 item 5 of the Act are shown in Annex 5. ② Medical service institutions should employ other necessary personnel in addition to medical service workers under paragraph(Table 10) pursuant to the following standards^{3,4)}.

Thus, the law stipulates the quotas of medical and non medical doctor service workers to be hired by TKMH. The statutes provide specific quotas concerning the employment of doctors, pharmacists or herbalists, nutritionists, technicians, record keepers and nursing assistants, with which traditional medicine hospitals should comply. Thus, the law stipulates the quotas of medical and non medical doctor service workers to be hired by traditional medicine hospitals.

Accordingly, we attempted to explore points for future improvement concerning the quotas of traditional Korean medical doctors and non medical doctor

workers as provided under the Medical Service Act, based on a survey and analysis of the traditional Korean medicine workers and other workers hired by TKMH(i.e., through a questionnaire survey and analysis and comparison of the workforce hired by traditional and Western medicine hospitals as published in the Health Statistics Yearbook).

The current survey reveals that the 57 respondent TKMH have a combined total of 3,379 employees, comprising traditional Korean medical doctors 28% (n=938) and non medical doctor workers 72%(n=2,441), who can be further broken down into nurses 23%(n=783), administrative workers 19%(n=646), nursing assistants 9%(n=320), medical record keepers 2%(n=68), nutritionists 2%(n=57), herbalists 1%(n=31), and others 16%(n=537). It was also revealed that average of 59.3 personnel work at each TKMH, including an average of 16.5 traditional Korean medical doctors, who can be further broken down into 6.2specialists, 1.3 general practitioners and 9.3 trainee doctors. It was also found that an average

Table 10. Medical Service Law of Annex 5 under Article 38

Annex 5 (1): Traditional Korean medicine hospitals should employ a number of traditional Korean medical doctors equal to the number arrived at by dividing the one inpatient by 20 persons on annual average. To that end, three outpatients should be converted into one inpatient.		Annex 5 (2): They should also employ a number of nurses equal to the number arrived at by dividing the one inpatient by five persons on annual average. To that end, 12 outpatients should be converted into one inpatient.		Annex 5 (3): The traditional Korean medicine hospitals should employ one or more traditional medicine doctors but may employ herbalists for 16 hours or more per week when the hospital has 100 beds or fewer.
(1) Hospital-class medical service institutions should employ pharmacists or herbalists.	(2) Hospital with inpatient facilities should employ one or more nutritionists.	(3) Medical service institutions should employ the necessary number of medical technicians for each medical department as provided by the Minister of Health and Welfare.	(4) General hospitals should employ the necessary number of medical record keepers.	(5) Medical service institutions should employ the necessary number of nursing assistants.

42.8 non medical doctor workers at the TKMH, for an average of 13.8 nurses, 0.6 herbalists, 5.7 nursing assistants, 1.2 record keepers, 1.0 nutritionists, 13.4 administrative workers, and 10.0 other workers.

The percentages of traditional Korean medical doctors and Western medicine doctors hired by hospitals, clinics or public health centers in 2008 were as follows: 54.5% of Western medicine doctors were hired by hospitals, 42.4% by clinics and 3.1% by public health centers, whereas 10.7% of traditional Korean medical doctors were hired by hospitals, 83.2% by traditional Korean medicine clinics, and 6.0% by public health centers. Based on these figures, the majority 54.5% of the Western medicine doctors work at hospitals, whereas only 10.7% of the traditional Korean medical doctors work hospitals or greater medical institutions. A separate study is required to study directions for or ways of enhancing their employment rate by hospitals or greater medical institutions.

The percentages of traditional Korean medical doctors classified based on their training were found to be as follows: 37% specialists, 8% general practitioners, and 55% trainee doctors. As the total number of specialists, traditional Korean medical doctors increased from 862 in 2004 to 1,514 in 2008⁵⁾, the average number of specialists in traditional Korean medicine hired by TKMH significantly increased from 2.58 in 2004⁶⁾ to 6.2 in 2008, thereby indicating a positive effect in terms of the expertise secured by TKMH.

The 2008 statistics for the workforce at TKMH and Western medicine hospitals were compared and analyzed⁷⁾. In 2008, a total of 3,375 persons were hired by 139 TKMH. This figure was further broken down into traditional Korean medical doctors 36.3% (n=1,226), nurses 40.7%(n=1,373), nursing assistants 18.9%(n=637), medical record keepers 2.0%(n=68), pharmacists or herbalists 0.9% (n=29), and technicians 1.2%(n=42). Compared with percentages of the workforce in Western medicine hospitals, the rate of

employment(36.3%) of traditional Korean medical doctors is twice that(13.8%) of Western medicine doctors working at Western medicine hospitals. In contrast, the employment rates of nurses(40.7%), nursing assistants(18.9%) and medical record keepers (2.0%) at TKMH are mostly similar to those of their counterparts at Western medicine hospitals, i.e., 40.7%, 21.3%, and 1.7%, respectively. However, the employment rates of herbalists(0.9%) and medical technicians(1.2%) hired by TKMH significantly differed from those of their counterparts hired by Western medicine hospitals, i.e., 1.6% and 20.0%, respectively.

The above figures and analyses reveal that TKMH hired 2.5 times more doctors than Western medicine hospitals, whereas they hired half the amount of pharmacists(herbalists) and only one twentieth of medical technicians.

To further analyze two categories, it appears that herbalists' functions have not yet been fully settled in TKMH. Furthermore, TKMH with more than 100 beds are required to employ one or more herbalists, whereas those with fewer than 100 beds could hire part-time herbalists for 16 or more hours per week, pursuant to the Rules for the Enforcement of the Act, which needs to be reviewed with a view to further improvement.

The rate of medical technicians hired by Western medicine hospitals is 20%, which is far greater than the 1.2% hired by TKMH. It is believed that such a lower rate may be attributable to the fact that traditional medicine doctors do not have the authority to oversee medical technicians. Therefore, we conclude that it is necessary to find and review ways of ensuring that better traditional Korean medical services are provided by granting to traditional Korean medical doctors the authority to hire and supervise medical technicians, or of introducing a system of traditional Korean medicine physical therapists who will perform functions comparable to those performed by Western medicine technicians,

specializing intraditional physical therapy under the guidance or supervision of Traditional Korean medical doctors.

Acknowledgements

This research was supported by a grant 'A Survey on the Use of Traditional Korean Medicine 2008 (G08090)' from the Ministry of Health and Welfare.

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